Republic of Uganda

Ministry of Agriculture, Animal Industry and Fisheries

Uganda Climate Smart Agricultural Transformation (UCSAT) Project - P173296

Environmental and Social Management Framework

September 2022

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ACRONYMS AND ABBREVIATIONS

ACB	Agricultural Chemicals Control Board
ACCE	Area Commodity Cooperative Enterprise
ACDP	Agricultural Cluster Development Project
AnGRCs	Animal Genetic Resource Centers
ATAAS	Agricultural Technology and Agri-business Services
AWP&BS	Annual Work Plans and Budgets
BDS	Business Development Services
CAO	Chief Administrative Officer
CDD	Community Driven Development
CDP	Community Development Plans
CEDP	Competitiveness and Enterprise Development Project
CMSIP	Commodity Multi-Stakeholder Innovation Platforms
CRGs	Competitive Research Grants
CRRF	Comprehensive Refugee Response Framework
CPAs	Certified Public Accounts
CSA	Climate Smart Agriculture
DA	Designated Account
DAIMWAP	Department of Agriculture Infrastructure Mechanization and Water for Agriculture Production
DARTs	District adaptative research support teams
DPOs	District Production Officers
DRDIP	Development Response to Displacement Impacts Project
e-GP	Uganda Electronic Government Procurement
EIRR	Economic internal rate of return
E&S	Environmental and Social
ESCP	Environmental Social Commitment Plan

ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESSH	Environmental, Social, Safety and Health
FAO	Food and Agriculture Organization
FEWs	Frontline extension workers
FFSs	Farmer Field Schools
FIDIC	International Federation of Consulting Engineers (Federation Internationale des Ingenieurs – Conseils)
FM	Financial Management
FMA	Financial Management Assistant
FMIS	Financial Management Information System
FMS	Financial Management Specialist
GAL	Government Analytical Laboratory
GDP	Gross Domestic Product
GHG	Greenhouse gases
GRM	Grievance redress mechanism
GoU	Government of Uganda
HPLC	High performance liquid chromatography
HSE	Health, Safety and Environmental
IDA	International Development Association
IGG	Office of the Inspectorate of Government
IT	Disruptive agricultural technologies
JLIRP	Jobs and Livelihoods Integrated Response Plan for Refugees and Host Communities
LIPW	Labor-intensive public works
LCMS	Liquid chromatography mass spectrometer
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
M&E	Monitoring and Evaluation
MSCP	Multi-stakeholder Coordination Platform

MIS	Market Information System
MoFPED	Ministry of Finance, Planning and Economic Development
MGLSD	Ministry of Gender, Labour and Social Development
MLG	Ministry of Local Government
MoLHUD	Ministry of Land, Housing and Urban Development
MNR	Micro-Nutrient Rich
MoU	Memorandum of Understanding
MTEF	Medium-term expenditure framework
MTIC	Ministry of Trade, Industry and Cooperatives
MWE	Ministry of Water and Environment
NAADS	National Agricultural Advisory Services
NAGRC&DB	National Animal Genetic Resources Center and Data Bank
NARO	National Agricultural Research Organization
NDA	National Drug Authority
NDP	National Development Plan
NPV	Net Present Value
NUSAF-3	Northen Ugandan Social Action Fund
OHS	Occupational health and safety
OPM	Office of the Prime Minister
PA	Producer Association
PB	Project Briefs
PCU	Project Coordination Unit
PDO	Project Development Objective
PDM	Parish Development Model
PES	Payment for ecosystem services
PFM	Public Financial Management
PHM	Post-Harvest Management
PIM	Project Implementation Manual

PMP	Pest Management Plan
PP	Procurement Plan
PPDA	Procurement and Disposal of Public Assets
PPSD	Project Procurement Strategy for Development
PS	Permanent Secretary
RHDs	Refugee Hosting Districts
RPF	Resettlement Policy Framework
RPO	Rural Producer Organization
RPLRP	Regional Pastoral and Livelihoods Resilience Project
SEA/GBV	Sexual exploitation and abuse/ Gender based violence
SLM	Sustainable Land Management
SME	Small and Medium Enterprise
SMSs	Subject matter specialists
SPC	Shadow price of carbon
STEP	Systematic Tracking of Exchanges in Procurement
SWC	Soil and water conservation
TA	Technical Assistance
TIMPs	Technologies, Innovations, and Management Practices
ToRs	Terms of Reference
ToTs	Trainer of Trainers
UBoS	Uganda Bureau of Statistics
UBTET	Uganda Business Technical Education and Training
UCSATP	Uganda Climate Smart Agricultural Transformation Project
UHT	Ultra-Heat Treated
UNBS	Uganda National Bureau of Standards
UNMA	Uganda National Meteorological Authority
UNHCR	United Nations High Commissioner for Refugees
UNHS	Uganda National Household Survey

URFPS	Uganda Refugee High Frequency Phone Surveys
WHR	Window for Host Communities and Refugees
WIDS	Weather Information Dissemination System
ZARDI	Zonal Agricultural Research Development Institute

GLOSSARY OF TERMS

- **Cumulative impacts/effects:** The total effects on the same aspect of the environment resulting from a number of activities or projects.
- **Developer/Proponent/Sponsor:** the entity – person/ company/ agency -proposing to develop/implement/install a new project/sub- project or expand an existing project under the UCSATP.
- **Direct impacts:** An effect on the environment brought about directly by the UCSATP projects.
- **Disclosure:** Information availability to all stakeholders at all stages of the development of projects. Includes disclosure of project documents.
- **Environment:** physical, biological, and social components and processes that define our surroundings.
- **Environmental impact assessment (EIA):** A comprehensive analysis of the project and its effects (positive and negative) on the environment and a description of the mitigation actions that will be carried out in order to avoid or minimize these effects.
- **Environmental Monitoring:** The process of examining a project on a regular basis to ensure that it is in compliance with an Environmental Management Plan (EMP).
- **Food security:** exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life
- **Gender Based Violence (GBV):** an umbrella term for any harmful act that is perpetrated against a person's will and that is based on socially ascribed (gender) differences between males and females.
- **Gender equality:** Means that all human beings, both men and women, are free to develop their personal abilities and make choices without the limitations set by stereotypes, rigid gender roles and prejudices. That the different behavior, aspirations and needs of women and men are considered, valued and favored equally. That their rights, responsibilities, and opportunities will not depend on whether they are born male or female.
- **Gender equity**: Fairness of treatment for women and men, according to their respective needs. This may include equal treatment or treatment that is different, but which is considered equivalent in terms of rights, benefits, obligations and opportunities. Equity is a means to gender equality.
- **Gender roles:** these are learned activities, tasks and responsibilities which people are conditioned to perceive as male or female. Gender Roles can be categorized into 3; productive gender roles, reproductive gender roles, and community management gender roles. Also known as the women's triple role.
- **Grievance:** An issue, concern, problem, or claim related to the project (perceived or actual) that an individual or community group wants a company or contractor to address or resolve.
- **Impact:** A positive or negative effect that a project/an activity can have on an aspect of the environment.

- **Indirect impact:** A positive or negative effect that a project indirectly has on an aspect of the environment.
- **Involuntary resettlement:** The forceful loss of land resources resulting from project activity that requires individuals, families and/or groups to move and resettle elsewhere.
- **Lead Agency:** The agency with primary responsibility for the protection of the environment. For instance, the lead agency for environment matters in Uganda is Uganda Environment Management Authority (NEMA).
- **Mitigation measures:** The actions identified in an ESIA to negate or minimize the negative environmental and social impacts that a project may have on the environment.
- **Nutrition security:** is an outcome of good health, a healthy environment, and good caring practices as well as household food security; it is achieved when all household members, have physical, social and economic access to sufficient, safe and nutritious food that meet their dietary needs and food preferences, combined with a sanitary environment, access to clean water, adequate health services, and appropriate care and feeding practices to ensure an active and healthy life.
- **Operational policies (OPs):** Are environmental and social policies of the Bank are also known as the "safeguard policies" the mechanism for addressing environmental and social issues in our project design, implementation and operation, and they provide a framework for consultation with communities and for public disclosure.
- **Patriarchy:** The word 'Patriarchy' comes from Latin word Pater, which means Father; most often refers to political power and authority of males in society. Father rule, it is the structuring of society on the basis of family units where fathers have primary responsibility for the welfare of and hence authority over their families.
- **Perpetrator:** A person, group or institution that inflicts, supports or condones violence or other abuse against a person or groups of persons.
- **Pests** – Commonly include harmful insects, mites, ticks, weeds, bacteria, fungi, rodents, birds, and others.
- **Pesticide** – From "pest" and "cide" (a Latin derivative meaning killer), a natural or synthetic chemical agent that kills or in some ways diminishes the action of pests. It is a general term that includes herbicides, insecticides, nematicides, fungicides, antibiotics, rodenticides, plant growth regulators, etc.
- **Pest Management** – Any deliberative action to prevent or reduce the density or harmful effects of a pest population.
- **Pesticide Management** – Deliberative actions to reduce the harmful effects of pesticides; includes legislation and regulations as well as safe application, storage, and disposal.
- **Pesticide Resistance** – Genetic qualities of a pest population that enable individuals to resist the effects of certain types of pesticides that are toxic to other members of that species.
- **Pollution:** contamination altering the state of purity (e.g., chemical effluent discharge into a surface water body).

- **Project Brief:** The initial submitted document to NEMA to initiate the process that will lead to the issuance of the EIA certificate of approval.
- **Scoping:** The initial stage in an environmental assessment that determines the likely major environmental parameters that will be affected and the aspects of the project that will bring upon these effects.
- **Screening:** An initial step when a project is being considered for environmental assessment. The screening is the determination of the level of assessment that will be conducted.
- **Sexual abuse:** Refers to the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions. Therefore, SEA occurs against a beneficiary or vulnerable member of the community.
- **Sexual exploitation:** Consists of any actual or attempted abuse of a position of vulnerability, differential power, or trust, for sexual purposes, including but not limited to, profiting monetarily, socially, or politically from the sexual exploitation of another.
- **Sexual Harassment:** Defines any behavior of a sexual nature that affects the dignity of women and men, which is considered as unwanted, unacceptable, inappropriate and offensive to the recipient, and that creates an intimidating, hostile, unstable or offensive work environment.1
- **Significant effect:** An important impact on an aspect of the environment.
- Stakeholder: Any person or group that has an interest in the project or is likely to be affected by the project.
- **Survivor:** A preferred term for a person who has lived through an incident of Gender-Based Violence and Violence against Children.
- **Suspect:** A person believed to be guilty of a specified offence or crime without proof.
- **Violence Against Children (VAC**): Refers to “any act of violence that results in, or is likely to result in, physical, sexual and psychological harm to children, whether occurring in private or in public. Other harmful acts are included such as early marriage”.

EXECUTIVE SUMMARY

Introduction

In order to address poverty and reverse the impacts of land degradation, promote the adoption and scale up of appropriate land management practices and climate smart technologies for sustained productivity and poverty reduction, the Government of Uganda would need to:

(i) invest in strengthening institutions at varying levels - communities and local governments - to promote mindset change among policy makers and communities regarding the benefits of promoting climate smart technologies, innovations and management practices in select value chains;

(ii) facilitate institutional arrangements that effectively resolve challenges of informal arrangements within farmer groups as well as between farmers and other value chain actors;

(iii) invest in institutional building to enhance community resilience to climatic shocks;

(iv) invest in climate smart technology generation and adaptation to facilitate sustainable promotion and uptake of TIMPs;

(v) provide and apply appropriate incentives or instruments to enhance adoption of climate smart technologies and Sustainable Land Management (SLM) practices, and have these adapted to different typologies based on their cost effectiveness and suitability;

(vi) address market access and infrastructure challenges to incentivize increased investments into climate smart technologies, innovations and management practices and enable a shift from subsistence farming to commercial oriented production;

(vii) improve land administration and land use planning and land use rights by empowering local governments and community institutions as well as harmonization of institutions;

(viii) promote value chains that do not put pressure on land by promoting value addition and agro-processing while addressing poverty and land degradation nexus;

(ix)(ix) Include customized interventions that address the unique characteristics of refugee and host community districts to promote sustainable use of natural resources and balance relations between refugee and host communities;

(x) improve and strengthen knowledge management and;

(xi)(xi) invest in early warning systems, surveillance and forecasting by establishing and strengthening the institutional architecture that can effectively respond and make adjustments in real time.

The Government of Uganda through the Ministry of Agriculture, Animal Industry and Fisheries has solicited funding from the World Bank to implement the 'Uganda Climate Smart Agricultural Transformation' (UCSAT) project in targeted agro-ecological zones that have increasing and high levels of poverty, high levels of land and natural resource degradation as well as low value production. Agro-ecological zones included in the project are:

- North-Eastern Dry Lands (Karamoja);
- North-Eastern Savannah Grasslands (East Acholi and Northern Lango);

- Kyoga Plains (SE Lango, Teso, Bukedi and northern Busoga);
- Western highlands, southern Highlands, Southern drylands, lake Albert crescent; and
- Eastern (Elgon) Highlands (Bugisu and Sebei).

Project Description

Proposed Project Development Objective(s)

To increase productivity, marketed volumes and resilience of select-value chains in the project area.

Project Components

The project consists of five components:

a. Strengthening Climate-Smart Agricultural Research, Seed and Agroclimatic Information Systems;
b. Promoting Adoption of Climate Smart Agricultural Technologies and Practices;
c. Investments in Market Development and Linkages to Selected Value Chains;
d. Contingency Emergency Response, and
e. Project Coordination, Management, Monitoring, Evaluation and Learning

Component 1: Strengthen Climate-Smart Agricultural Research, Seed and Agro-Climatic Information Systems. This component will support the development, validation, packaging, dissemination and adoption of context specific climate smart agriculture (CSA) Technologies, Innovations & Management Practices (TIMPs) to target beneficiaries. It will facilitate investments to develop sustainable seed production and marketing systems. It will enhance climate risk management to improve prediction of, response to, and planning capacity for climate change management at the national, local and community levels. The component will also strengthen technical and institutional capacity to deliver technologies and support the development of the seed delivery systems. Among others this component will support crop, livestock, and aquaculture breeding programs, establishment of functional automated weather stations, refurbishment and/or upgrading of facilities and infrastructure such as crop and animal experimental structures, seed and breeding stock production infrastructure, training centers, provision of seed stores, large scale seed production farm machinery, small seed processing plants, fish fingerling production structures, select laboratory and value addition equipment.

Component 2: Promoting Adoption of Climate Smart Agriculture Technologies and Practices and Value Chains: The component will support investments in and adoption of climate smart agriculture (CSA) technologies, innovations and management practices (TIMPs), including sustainable land management (SLM) practicesfor improved resilience, agricultural productivity, and incomes in project areas. The component will finance construction of recommended soil and water conservation (SWC) structures such as terraces, contour bunds, and water retention ditches, restoration of degraded wetlands, riverbanks, and lakeshores stabilization work on communally owned land and agroforestry. The sub-component will provide payments for Labor Intensive Public Works (LIPW) mainly during the agricultural off-season, to catalyze the promotion and adoption of appropriate SLM technologies. The project will facilitate access quality inputs such as seeds, fertilizers, micro-irrigation kits and mechanization among others. This component will support access and installation of infrastructure and equipment for precision agricultural production, including housing, cold chains, small scale irrigation schemes, farm equipment's, storage facilities for livestock feed, forage and hay equipment, water supply sources and fences for livestock, small scale fish feed making or pelleting equipment; feeder and drainage canals or pipes and specialized equipment normally used in more intensive aquaculture facilities such as aquaparks, cages and tanks. The grant and funds will be channelled through organized farmer groups. District level grants will be provided for investment in sub-projects beyond the farmer group or community level, at the sub-county or district to support improved productivity. These may include infrastructure for impounding and storage of water at source such as valley tanks for smallholder irrigation, and water for livestock and aquaculture production, and breeding and breed improvement. The integrated Labor-intensive Public Works and

Payment for Ecosystem services will address the following key environmental challenges: (a) Soil erosion, mudslides, landslides, floods, and water logging through promotion of soil water and crop management and conservation practices; (b) range land degradation through promotion of pastures and rangeland management; (c) forest and woodland degradation through agro-forestry, silviculture and silvo-pastoral, (d) soil nutrient depletion through promotion of practices that promote nutrient regeneration like addition of crop residues, mulching and fallows; (e) Wetland degradation through promotion of wetland restoration and management; and (f) restoration of degraded and hilly lands and habitats including water quality for aquaculture. Access roads: MAAIF will make investments in improving access roads through rehabilitation of choke points to reduce transaction costs and contribute to enhancing incomes. The nature and magnitude of these investments and activities will be made clear during the project implementation.

Component 3: Investments in Market development and linkages for selected value chains: The objective of this component is to improve access to remunerative markets through increased access to harvesting, post-harvest handling, storage, value addition, and market linkage services, equipment, and infrastructure by higher-level institutions (Producer Associations and Producer Organizations (POs) established under sub-component 2.3. The project will support investments in clean energy equipment, machinery and infrastructure for harvesting, post-harvest management and value addition to minimize losses, investments into market infrastructure and access roads, rehabilitation of infrastructure for specific road bottlenecks and trouble spots on rural roads, including rehabilitation of existing road chokes.

Component 4: Contingency Emergency Response: This zero-cost component will finance eligible expenditures under the Immediate Response Mechanism (IRM) in case of natural or man-made crises or disasters such as severe droughts, floods, specific pest and disease outbreaks, severe economic shocks, or other crises and emergencies that may occur in Uganda. The emergency response would include mitigation, recovery, and reconstruction following the crisis and disasters.

Component 5: Project Coordination, Management, Monitoring, Evaluation and Learning: This component will support the operational expenditures related to the management, monitoring and evaluation of the project. In summary this component will support *Project Co-ordination and Management* following a decentralized approach using existing government structures at the national, zonal, and district levels; *Project Monitoring, Evaluation, and communication which will include among others* environmental and social safeguards monitoring. The subcomponent on strengthening the Environment, Social, Safety and Health Risk Management in the Agriculture sector portfolio will support: (i) Building the technical capacity of MAAIF staff and project stakeholders on World Bank Environment and Social standards applicable to the project; (ii) stakeholder engagements, preparation and implementation of site specific instruments and tools including mainstreaming of ESHS aspects in other sector operations (iii) Strengthening ESHS compliance monitoring and supervision; (iv) Enhancing MAAIF's safeguards management infrastructure such as E-ESHS safeguards tracking system, hazardous waste disposal facilities and analytical monitoring equipment (such as Liquid chromatography mass spectrometer (LCMS), High performance Liquid Chromatography (HPLC), accessory equipment, glass wares, standards and reagents for testing the quality of pesticides, portable test kits for rapid detection of fake fertilizers among others); (v) Strengthening Grievance Redress Mechanism structures, (vi) Acquisition of ESHS safeguards statutory permits and certificates in respect of project components, (vii) Strengthening gender mainstreaming aspects in the project including SEA/GBV and (viii) Strengthening stakeholder, institutional participation, and mindset change including protection of vulnerable groups.

THE ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

Rationale, Purpose and Scope of the ESMF

The project specific implementation locations and detailed information (including designs where applicable) are not known and/or available during project preparation and shall be known during implementation stage. For this reason, the framework (Environmental and Social Management Framework-ESMF) has been used instead of project-specific environmental and social assessment and management plans. The specific instruments and tools shall be prepared during project implementation, as and when necessary, following the guidance provided in the ESMF. The purpose of the ESMF is to provide guidance to the Project Implementation Unit (PIU) and the Subproject Proponents on the E&S screening and subsequent subproject assessment during implementation, including subproject-specific plans in accordance with the requirements of Environmental and Social Framework (ESF). The ESMF provides procedures relevant to the development of the subprojects, including how to conduct screening of subprojects to assess the environmental and social risks and impacts and identify mitigation measures, as part of subproject-specific assessment and plans. In summary, the ESMF provides a general impact identification framework to assist project implementers to screen the subprojects during identification and institute measures to address any negative environmental and social impacts during implementation, including mainstreaming COVID-19 Standard Operating Procedures as guided by Ministry of Health.

In order to systematically manage the likely environmental and social risks and impacts, the project Environmental and Social Management Framework (ESMF) includes among others the following: Labor Management Procedures; Stakeholder Engagement Plan; Pest Management Plan (PMP); "Chance Finds" Procedure and a template for preparing Environmental and Social Management Plans (ESMPs) or Project Briefs (PB) as defined in the national legislation, as necessary for managing risks and impacts related to any civil works. The ESMF also outlines the implementation arrangements, including a capacity building program for adequate environmental and social risk management for various project interventions. In order to ensure implementation of the ESF requirements listed above, MAAIF has developed the Environmental and Social Commitment Plan (ESCP). The ESCP sets out measures and actions required for the project to achieve compliance with ESS over a specified timeframe.

Legal and Policy Framework

The policies and legal framework applicable to the project have been reviewed and their respective requirements taken into consideration.

World Bank Environmental and Social Framework

The World Bank Environment and Social Framework is an elaborate systematic approach to guaranteeing sustainable development. The Environment and Social Framework (ESF) sets out the Bank's vision for sustainable development, the Environment and Social policy for investment project financing and ten Environmental and Social Standards (ESS) that guide borrowers in the course of project implementation. The standards relevant to the project have been reviewed and their respective requirements taken into consideration. In addition to ESS-1 Assessment and Management of Environmental and Social Risks and Impacts, the following are relevant to the project: ESS2 Labour and Working Conditions since the project is expected to have workers engaged to undertake various activities; ESS3 Resource Efficiency and Pollution Prevention and Management since the project is envisaged to involve use of pesticides and other agrochemicals to boost agricultural production; ESS4 Community Health and Safety since the project will pose health and safety aspects to the community including the likely use of security forces to provide security to project staff in the Karamoja region affected by armed cattle rustling; ESS5 Land Acquisition, Restrictions on Land use and Involuntary Resettlement is relevant to the project since project activities may involve land acquisition to establish project infrastructure and restrictions on land use particularly

land in fragile ecosystem, and protected natural resources; ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources is relevant since some project activities involve restoration of ecosystems such as wetlands, forests and pose both positive and negative impacts in such habitats; ESS7 Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities is relevant since the project areas of Karamoja and Sebei regions have communities who qualify and fit into the definition of ESS7; ESS8 Cultural Heritage is relevant since the project entails civil works excavations, movement of earth or other changes in the physical environment which may have a direct interaction and/or impact on Cultural Heritage; ESS9 Financial Intermediaries is not relevant since there are no Financial Intermediaries participating in the project; and ESS10 is relevant since the project involves aspects and requirements of Stakeholder Engagement and Disclosure. In addition, the WBG-Environmental Health and Safety Guidelines have been taken into consideration.

Given the E&S impacts which will be associated with implementation of the infrastructure subcomponents, coupled with the wide geographical coverage of the project throughout the country, the likely aggregate E&S risks and impacts, and weak institutional E&S capacity both at National and Local Governments level, the E&S Risk Rating is considered Substantial.

Summary of ESMF Implementation Process

Implementation of the ESMF shall be undertaken as follows:

- E&S Screening of Subprojects and Activities: This shall be undertaken by the Project Implementation Unit (PIU) and respective District Implementation Teams (DITs), using the Environmental and Social Screening Form (Annex 1). The E&S screening will determine the level of Environmental and Social Assessment (ESA) and the type of instruments (Full ESIA for Substantial Risk sub-projects, ESMP or Project Brief for Moderate to be prepared in line with the WB ESF and the Uganda National Environment Act (2019);
- ESA is carried out in line with TORs reviewed and cleared by the Bank and approved by NEMA;
- ESA process is carried out including undertaking Public and Stakeholder consultations and report compilation (Project Brief/ESMP/ESIA);
- The report (Project Brief/ESMP/ESIA) is reviewed by PIU, the Bank, Lead Agencies and Approved by NEMA. NEMA issues EIA Certificate of Approval. The report is disclosed both by MAAIF and the Bank.
- Implementation of ESMP and regular (Quarterly) E&S reporting is undertaken by MAAIF to NEMA and WB. Periodic (Annual at the minimum) E&S Audit of project activities shall be undertaken by MAAIF and reports submitted to the Bank for review and to NEMA for Approval.

PROJECT BASELINE SUMMARY

The project will be implemented in 69 districts and will directly benefit about 2,850,000 individuals. Given that project intervention areas will also cover refugee hosting districts, about 225,000 refugees are expected to directly benefit from project activities bringing the total number of direct beneficiaries to about 2.9 million. The baseline information included aspects regarding climatic condition, topography, soils, population, Bio-Physical Environment, vegetation, Land resources, Water resources, Biodiversity, Socio-Economic Environment, Socio services (water, roads, energy, waste management).

POTENTIAL PROJECT IMPACTS AND MITIGATION MEASURES

The salient physical project activities relevant to environmental and social risks and impacts will likely apply to all the project components but mainly those which will support infrastructure related developments and use of farm inputs such as pesticides, fertilizers, and acaricides. The project is financing activities that will have mainly positive impacts and benefits to host communities and the environment. Environmental and social issues relevant to the project are here summarized: Under **Strengthening Climate-Smart Agricultural Research, Seed and Agro-Climatic Information Systems the project** will finance among others the refurbishment and/or upgrading of facilities and infrastructure such as crop and animal experimental structures, seed and breeding stock production infrastructure, training centers, provision of seed stores, large scale seed production farm machinery, small seed processing plants, fish fingerling production structures, select laboratory and value addition equipment, and will facilitate rehabilitation and establishment of meteorological stations and/or functional automated weather stations, where they do not exist in the project districts and supplement where they are available, to produce and transmit weather data that is accurate. Under **Promoting Adoption of Climate Smart Agriculture Technologies and Practices the project including the third Component of Investments in Market development and linkages for selected value chains** will support access and installation of infrastructure and equipment for precision agricultural production, including housing, cold chains, ***small scale irrigation schemes***, farm equipment, storage facilities for livestock feed, forage and hay equipment, water supply sources and fences for livestock, small scale fish feed making or pelleting equipment; feeder and drainage canals or pipes and specialized equipment normally used in more intensive aquaculture facilities such as aquaparks, cages and tanks. The community grant and funds will be channelled through organized farmer groups. District level grants will be provided for investment in sub-projects beyond the farmer group or community level, at the sub-county or district to support improved productivity. These may include ***infrastructure for impounding and storage of water at source such as*** 6 strategic ***valley tanks*** and 4 irrigation schemes at Aswa, Ayila, Lumbuye and Bukagolo ***for smallholder irrigation***, and water for livestock and aquaculture production, and breeding and breed improvement. The integrated Labor-intensive Public Works and Payment for Ecosystem services will address the following key environmental challenges: (a) Soil erosion, mudslides, landslides, floods, and water logging through promotion of soil water and crop management and conservation practices; (b) range land degradation through promotion of pastures and rangeland management; (c) forest and woodland degradation through agro-forestry, silviculture and silvo-pastoral, (d) soil nutrient depletion through promotion of practices that promote nutrient regeneration like addition of crop residues, mulching and fallows; (e) Wetland degradation through promotion of wetland restoration and management; and (f) restoration of degraded and hilly lands and habitats including water quality for aquaculture. The **Contingency Emergency Response Component** is a zero-cost component which will finance eligible expenditures under the Immediate Response Mechanism (IRM) in case of natural or man-made crises or disasters such as severe droughts, floods, specific pest and disease outbreaks, severe economic shocks, or other crises and emergencies that may occur in Uganda. The emergency response would include mitigation, recovery, and reconstruction following the crisis and disasters. Implementation of this subcomponent will follow a detailed Contingent Emergency Response Implementation Plan (CERIP) satisfactory to the World Bank that will be prepared for each Eligible Crisis of Emergency. Activity specific E&S screening and/or development of ESMPs shall be undertaken in line with the procedures included in this ESMF before commencement of implementation.

Environmental Risk

Typically, project activities aimed at strengthening Climate-Smart Agricultural Research, Seed and Agro-Climatic Information Systems involves value addition technologies and establishment of sustainable seed systems, are expected to generate minimal E&S risks and impacts. The proposed project SLM and LIPW

activities will largely contribute to overall positive E&S impacts since they are designed to mitigate and/or adopt to climate change. With exception of small-scale irrigation systems and road rehabilitation works which are expected to generate moderate to substantial E&S impacts, the rest of project activities will generate E&S impacts and risks which are limited or moderate in magnitude since most of the activities shall be undertaken by farmers on rather a small-medium scale and scope, the impacts shall be site specific/localized and readily mitigatable. Further, there are potential risks of polluting ecologically sensitive habitats such as wetlands, national parks, reserves, and water bodies arising from use of pesticides and other agrochemicals such as fertilizers and acaricides. MAAIF will manage these risks by adopting and complying with FAO technical guidelines on Application of Pesticides, personal protection when handling and applying pesticides, the use of World Bank Group (WBG) General Environmental Health and Safety (EHS) Guidelines and National legislations and regulation on use of Pest Control Products. MAAIF has prepared a Pest Management Plan (PMP) as part of this ESMF which includes emergency preparedness and response procedures to manage any contamination or poisoning that may occur.

In general, the project will generate positive outcomes that are expected to outweigh negatives ones. Notwithstanding, the small-scale infrastructure activities and likely use of agro-inputs (such as pesticides, acaricides, fertilizers) pose limited and site-specific E&S risks and impacts. The key environmental and risks and impacts will largely occur during construction phase and operation phase of the infrastructure related activities and mostly the small scale irrigation system. The likely key risks and impacts include the following: occupational health and safety concerns, including physical (solar radiation and heat) and chemical (fuels, oils, lubricants, paints, solvents) hazards; community health and safety issues, related with road traffic and communicable diseases (e.g., HIV and AIDS, COVID-19); nuisance from noise, vibration and dust, as well as soil and water bodies contamination from hazardous and non-hazardous waste and debris during constructions activities; vegetation clearance and fauna disturbance resulting from earth movement. Operation and maintenance of agro-processing and storage facilities may lead to moderate environmental risks and impacts related with occupational health and safety aspects during the operations and equipment and machinery such as physical (electric shocks, burns and cuts) and chemical (oil and lubricants inhalation) hazards; community health and safety risks associated with the generation and disposal of solid waste. The planned new 200,000m^3 – 1,200,000m^3 storage capacity valley dams and existing ones (for desilting) are considered ***Small and Low-Risk Dams***, which do not fall into the Large New Dams (which would not cause safety risks or be expected to become large dams) and shall have dam safety measures designed and implemented by qualified engineers. During operation, the following risks may be encountered: increased pressure on water resources through irrigation that could impact on environmental flows in river ecosystems; land degradation due to overgrazing; discharge of water from fishponds potentially reduces water quality in the wetlands as may be loaded with nutrients; use of pesticides and inorganic fertilizers could increase and lead to the release of chemicals into water sources and damage soil quality, among others. In livestock farming, it is anticipated that GHG will be generated and should be controlled to prevent global warming. The project will implement interventions ranging from nutrition management, genetic improvement, manure management options, renewable energy generation and grazing system management to control GHG emissions. In general, anticipated environmental risks and impacts are expected to be temporary, predictable and/or reversible with lower effects on human and in the environment. The project will also support the capacity building activities to strengthen local government and community level institutions to use and manage land and its resources effectively and sustainably. Overall, given the wide geographical coverage and associated cumulative environmental impacts, coupled with weak institutional coordination and safeguards implementation capacity at both National and Lower Local Governments levels, Environmental Risk Rating is considered Substantial.

Social Safeguards Assessment

Social risks associated with the project will mainly emanate from anticipated activities with specific focus on (i) **Strengthen Climate-Smart Agricultural Research, Seed and Agro-Climatic Information Systems; and (ii) Promoting Adoption of Climate Smart Agriculture Practices and Value Chains.**

Some of the above investments will involve labour-intensive works (rehabilitation of rural roads and road choke) will involve community members and as such, risks normally associated with influx of labor (Social conflict, spread of communicable diseases, GBV/SEA, labor issues/disputes, etc.). Imported technical labour into project host areas to undertake civil works/infrastructure is expected to be low-moderate and will not entail substantial influx of workers into the communities targeted under these interventions. Other anticipated risks include social exclusion based on gender, disability, age, sexual orientation and gender identity, and other vulnerabilities (Indigenous Peoples) especially in the Southwestern, Karamoja and Sebei regions where there are known IPs and vulnerable communities. Inadequate engagement of the various stakeholders and an inadequate grievance redress mechanism also present a risk. The GBV/SEA/SH risk is Substantial, and as a result this ESMF includes a Gender Based Violence Action Plan (Annex 10). This rating is based on the existing prevalence of GBV risks in Uganda as a whole, coupled with environmental and socio-cultural factors that exacerbate gender disparities in the agricultural sector, with women farmers being disproportionately vulnerable from their greater dependency on natural resources with fewer endowments and entitlements to help them absorb shocks. Land acquisition and physical displacement is not expected/envisaged under the project. However specific investments in bulk water supply including infrastructure for small irrigation, climate change adaptation technologies, Agro weather stations, produce collection sheds and ground water development among others will more likely lead to acquisition of a sizeable portion of hectares of land in project sites. This is likely to lead to securing land on a permanent or temporary basis for community investments' specific infrastructures. For this reason, a Resettlement Policy Framework has been prepared alongside the ESMF, to provide guidance on assessment and management of land-acquisition and /or economic displacement impacts associated with the project during implementation. In addition, it's anticipated that there will not be restricted access to ecosystems services for community members that have been benefiting from forests and other protected areas located in the project area that are usually relied upon for firewood, medicinal plants, and fruits. However, a Process Framework has been prepared to guide assessment and management of issues which may arise and related to restriction of access to Protected Areas during project implementation.

The project design includes elements to ensure transparency, accountability and good governance of the project implementation process. A strong emphasis is laid on social accountability. Socio-cultural issues in some target communities hinder resource allocation/share, resource access and use, and equity issues in project implementation. These challenges affect project implementation and ownership. Therefore, in the project design, gender, and inclusion of youth and VMGs will be mainstreamed at all levels of implementation as well as capacity building stakeholders in the weak areas.

In order to ensure implementation of the ESF requirements, MAAIF shall develop and agree to with the World Bank an Environmental and Social Commitment Plan (ESCP). The ESCP will set out measures and actions required for the project to achieve compliance with the ESSs over a specified timeframe. The ESCP will form part of the project Legal Agreement and will be disclosed before Project Appraisal, as the ESMF shall be. One of the key implementation aspects relates to E&S Safeguards capacity of MDAs and Local Governments participating in project implementation, monitoring and supervision. It is thus critical and

prudent for MAAIF to enhance the current capacity (under ACDP) experience, knowledge and skills to effectively guide the implementation of the UCSAT project. MAAIF intends to augment the current staff strength by hiring E&S staff who will assist in the implementation of the project's safeguard requirements. In addition, most of the participating MDAs and District Local Governments have E&S staff who will be oriented and trained on E&S implementation requirements of UCSAT project.

Detailed technical guidance on E&S aspects of different sub-projects shall be guided by the generic mitigation measures outlined **Table 4-1: Generic E&S Impacts and Mitigation Measures for SLM and Planned small scale infrastructure.**

Stakeholder Consultations

Consistent with best practices in developing ESMFs, consultations were held during field visits with the key stakeholders and institutions. Limited (30% of Districts) were consulted to ensure that the project design and ESMF addressed existing challenges as captured on the ground. Broader community engagement will be conducted prior to project effectiveness as well as sensitization on the availability of a project grievance redress mechanism to support the systematic uptake, processing and resolution of project related complaints and grievances. The following were key issues captured during the consultations:

- Expectant on employment opportunities: There are high expectations from the project in the communities in that, they look forward to some employment opportunities in its various activities;
- Possible avenue for gaining on-job training and capacity building for those to be employed in the project;
- Potential to serve as source of income for local service providers who supply materials and other basic goods required to the operations of the project;
- The project will require extensive gender sensitization through training of staff, community sensitization and awareness creation on gender using gender sensitive language, gender sensitive and inclusive IEC material and radio talk shows;
- Value chain improvements interventions must incorporate measures and technologies for waste management which use technologies like rec-cycling etc;
- The livestock component has to come with technologies for Greenhouse gas management especially biogas technologies and applications;
- Issues of encroachment in swamps and wetlands by communities who grow rice growing hence, swamp reclamation. The project should come with alternatives so that people can easily get of wetlands if this CSA project is to meaningfully support environment and natural resource management;
- Issues of tree cutting by the communities for charcoal and firewood has degraded the environment, the need for the project to come clear with tangible measures of tree planting and the women be on the forefront on this as well as the youth;
- Wider stakeholder perceptions on the possible usage of safer pesticides especially in the event of pest invasions citing the current nationwide attacks by the ravaging Armyworms;
- Insufficient water supply for farming purposes in that, farmers rely on rain water for irrigation therefore, irrigation technologies ought to be those which even the local communities can co-opt and operate;
- Lack of mechanization is affecting farming. People have problems of opening up land by hand and others by oxen which oxen are not even available;

- ensuring that infrastructure constructed by UCSATP especially the Labour-Intensive Public Works (LIPWs) are well operated and maintained, reviewing project designs to ensure they include community needs including needs of the vulnerable;
- Interest groups and vulnerable categories ought to have their resources and involvement ring-fenced otherwise they are often left out during implementation;

Institutional and Coordination Arrangements

The Project implementation will involve several institutions at both the national and local governments levels. Ministry of Agriculture Animal Industry and Fisheries (MAAIF) will be the lead implementing agency with primary operational guidance and implementation functions. A Project implementation Manual (PIM) will describe institutional relationships at both national and District levels; their roles and responsibilities; the development and approval of Action Plans and annual workplans and budgets (AWP/B).

Capacity Building

Uganda Climate Smart Agricultural Transformation (UCSAT) project has established a set of minimum standards of staffing and capacity which MAAIF and participating Government MDAs and Districts should have in order to successfully implement the project. Project Coordination Unit shall be established within MAAIF - headed by a Project coordinator and staffed, at a minimum, with a procurement specialist, a financial management specialist, environmental, health and safety specialist, social specialist and shall be responsible for overall Project implementation including provision of technical guidance as well as coordination with Recipient's ministries and agencies". The project shall procure short term consultants to support the Environmental and Social Safeguards specialist.

In order to effectively implement the ESMF and other Environmental and Social (E&S) instruments prepared for the project, MAAIF, the line agencies, participating District Local Governments, Sub-Counties, Community Facilitators, and participating Community Groups shall need to enhance their basic skills and understanding of general environmental and social dimensions and with specific reference to the World Bank Environmental and Social Framework (ESF) requirements under which the UCSATP has been prepared. The overall objective will be to build and strengthen the institutional capacity of the implementing agencies to better support the development and integration of social and environmental measures into the project.

General Environmental and Social Implementation Budget

Financial resources are required to support implementation of the ESMF and general environmental and social management activities. Below are budget estimates to support basic environmental and social project management activities. The project is urged to prioritize and financially fund the listed activities in order to mitigate the likely environmental and social risks and impacts of the project activities.

Implementation Budget Summary

Item	**Annual Budget estimates (USD)**					
	Year 2023	**Year 2024**	**Year 2025**	**Year 2026**	**Year 2027**	
Implementation of General Capacity Development Plan for Management of Environmental and Social Risks and Impacts in the project (Chapter 7.4).	800,000	400,000	300,000	250,000	100,000	1,850,000
Projects supervision by project	300,000	300,000	200,000	200,000	100,000	

Environmental and Social Specialists at MAAIF						1,100,000
ESSH compliance supervision by District ESS team	205,800	205,800	155,800	155,800	155,800	879,000
Enhancing MAAIF's safeguards management infrastructure such as E-ESSH safeguards tracking system and analytical monitoring equipment		533,200	331,600	127,200		992,000
stakeholder engagements, preparation and implementation of site-specific instruments and tools including mainstreaming of ESHS aspects in other sector operations	1,062,300	1,062,300	1,062,300	1,062,300	1,062,300	5,311,500
Strengthening Grievance Redress Mechanism structures,	205,800	205,800	205,800	205,800	205,800	1,029,000
Enhancing acquisition of ESSH safeguards statutory permits and certificates in respect of project components		3,346,700	57,200	57,200		3,461,100
Strengthening stakeholder, institutional participation, and mindset change including protection of vulnerable groups	200,000	200,000	200,000	200,000	200,000	1,000,000
Project Closure Environmental and Social Audit.					150,000	150,000
Facilitating Implementation of ESMF (Ref. Section 7.3)	200,000	200,000	200,000	50,000	50,000	
Total Annual Budget	2,993,000	6,453,800	2,712,700	2,308,300	2,173,900	**16,472,600**
GRAND TOTAL BUDGET FOR MGT OF E&S RISKS AND IMPACTS US DOLLARS	**16,472,600**					

Note: The figures provided are lump-sum budget estimates.

1 UGANDA CLIMATE SMART AGRICULTURAL TRANSFORMATION PROJECT (UCSATP) - P173296

This section provides project background and context information, describes project components and activities, and rationale for using the ESMF. This section further provides a brief description of the proposed Uganda Climate Smart Agricultural Transformation UCSAT Project, covering its objectives, target areas, and project activities.

1.1 PROJECT BACKGROUND AND CONTEXT

The low resilience of rural households in Uganda to climatic and other shocks emanates primarily from the absence of infrastructure, weak linkages to market opportunities, inadequate financial resources and low investment into climate smart value chains that weakens uptake of Climate Smart Agricultural (CSA) technologies and improved practices. Households' inability to anticipate or recover from shocks that impact agriculture and food security in a timely manner underscores the high vulnerability of households with potentially longer lasting impacts on the economy. Farming households typically work at a subsistence level with inadequate financial resources, access to markets and infrastructure, information, and knowledge, which further exposes them to climate and market-related risks. Even though a range of CSA technologies including Sustainable Land Management (SLM) have been promoted and implemented across farmer typologies and agro-ecological zones in Uganda, the rate of adoption is less than 30 percent. The low level of adoption of SLM practices is attributed to limited commercial value of these practices.

In order to address poverty and reverse the impacts of land degradation, promote the adoption and scale up of appropriate land management practices and climate smart technologies for sustained productivity and poverty reduction, the Government of Uganda would need to: (i) invest in strengthening institutions at varying levels - communities and local governments - to promote mindset change among policy makers and communities regarding the benefits of promoting climate smart technologies, innovations and management practices in select value chains; (ii) provide and apply appropriate incentives or instruments to enhance adoption of climate smart technologies and SLM practices, adapted to different typologies based on their cost effectiveness; (iii) invest in institutional building to enhance community resilience to climatic shocks; (iv) establish land use plans; (v) improve land administration and land use rights by empowering local governments and community institutions as well as harmonization of institutions; (vi) promote value chains that do not put pressure on land by promoting value addition and agro-processing while addressing poverty and land degradation nexus; (vii) improve and strengthen knowledge management and; (viii) invest in early warning systems, surveillance and forecasting by establishing and strengthening the institutional architecture that can effectively respond and make adjustments in real time. Including customized interventions that address the unique characteristics of refugee and host community districts would go a long way in addressing sustainable use of natural resources and balancing relations between refugees and host communities.

Climate change mitigation and environment management are critical elements to achieving increased household incomes and improved quality of life for the population. The NDP III champions interventions aimed at stopping and reversing the degradation of Water Resources, Environment, Natural Resources as well as the effects of Climate Change on economic growth, jobs, and livelihood security. The development plan also highlights the need for community

mobilization for mind-set change to address development impacts of shocks like climate change, COVID 19, and locust invasion among others. The proposed interventions to enhance incentives that facilitate investments into technologies and improved management practices such as the use of the Payment for Ecosystem Services and the Labor-Intensive Public Works programs are consistent with Uganda Strategic Investment Framework for Sustainable Land Management 2010 – 2020 and as well as the National Environment Act (2019).

Investments in both short-term and long-term measures will not only enhance adoption of technologies for value chain development but also influence the overall continued utilization of SLM practices. Apart from increasing productivity, the TIMPs to be promoted need to reflect the needs of the markets so that the commodities produced have attributes demanded by the market. The project proposes criteria[2] that will guide selection of commodity value chains to be invested in. Some of these are indicated to illustrate: North-Eastern Drylands: Beef; poultry; apiary; and pigeon peas; Kyoga Plains: Fruits (citrus & mangoes); dairy, and aquaculture, and; Eastern (Elgon) Highlands: Coffee Arabica; dairy; vegetables; Irish potatoes. These investments are also likely to yield reductions in GHG emissions as a potential co-benefit, where possible. This will be achieved through; (i) Building and supporting institutional structures that will facilitate uptake, adoption and continued use of Technology, Innovations and Management Practices (TIMPs) through for value chain related activities; (ii) Investments to promote upscaling and adoption of TIMPs for productivity enhancement, resilience and sustainability in selected value chains through incentive approaches such as Labor-Intensive Public Works (LIPW) and Payment for Ecosystem Services (PES) adapted to context and location; storage and value addition (iii) Promoting improved access to markets by facilitating farmer organizations to invest in post-harvest management, storage and value addition infrastructure; (iv) Investments that support multiplication/replication to ensure consistent access and availability to climate smart seed systems through partnerships between research, private sector and farmer organizations; and (v) investments to strengthen climate risk predictions, response and planning at all levels for improved decision making.

The Government of Uganda through the Ministry of Agriculture, Animal Industry and Fisheries has solicited funding from the World Bank to implement the 'Uganda Climate Smart Agricultural Transformation' (UCSAT) project in targeted agro-ecological zones that have increasing and high levels of poverty, high levels of land and natural resource degradation as well as low value production.

1.2 PROPOSED PROJECT DEVELOPMENT OBJECTIVE AND KEY RESULTS

1.2.1 PROPOSED PROJECT DEVELOPMENT OBJECTIVE (PDO)

To increase productivity, market access and resilience of select-value chains[3] in the project area.

[3] 13 value chains have been selected for the project – up to 4 value chains will be supported in each sub-region. The value chains have been selected based on the following criteria: (i) Potential to earn income for farmers and create employment; (ii) Potential to support food security and nutrition; (iii) Environmentally

1.2.2 PDO LEVEL RESULT INDICATORS

The outcome indicators to measure achievement of the PDO are as follows:
(i) Number of beneficiaries benefiting from climate smart value chains and adopting sustainable land management practices disaggregated by gender, refugee, host community and non-refugee status

(ii) Number of technologies, practices, and knowledge products developed and disseminated under the project (disaggregated by refugee, host community and non-refugee status)

(iii) Land area under sustainable land management including climate smart practices in Hectares (Disaggregated by refugee, refugee hosting, and non-refugee communities)

(iv) Percentage increase in productivity of selected value chains in MT per hectare (disaggregated by gender, refugee, host community and non-refugee status)

(v) Percentage Increase in sales or volumes sold of agricultural products by targeted smallholders (disaggregated by gender, refugee, host community and non-refugee status)

1.2.3 PROJECT BENEFICIARIES

The project will be implemented in 69 districts and will directly benefit about 2,850,000 individuals. Given that project intervention areas will also cover refugee hosting districts, about 50,000 refugees are expected to directly benefit from project activities bringing the total number of direct beneficiaries to about 2.9 million. The direct beneficiaries of the project are the users of land and its resources including farmers, fish farmers, pastoralists, forest users, refugees and their host communities defined by their agro-ecologies, farming systems, socio-economic factors, geopolitics, and land tenure. Agro-ecological zones included are: (i)North-Eastern Dry Lands (Karamoja); (ii) North-Eastern Savannah Grasslands (East Acholi and Northern Lango); (iii) Kyoga Plains (SE Lango, Teso, Bukedi and northern Busoga); Western highlands, southern Highlands, Southern drylands, lake Albert crescent (iv) Eastern (Elgon) Highlands (Bugisu and Sebei) (v)Western (Bunyoro) (vi) South Western (Kigezi) (vii) Northern Buganda and Ankole Sub-region. These sub-regions and agro-ecological zones are targeted because of increasing and high levels of poverty, and land and natural resource degradation; vulnerability to vagaries of climate change as well as low value production.

The project will target individuals (smallholder and largescale farmers), farmer groups, cooperatives, and self-help groups. The project will also target the poor and vulnerable

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adaptable to the region; (iv) Potential for scalability; (v) Marketability – availability of market off-takers, aggregators, processors; (vi)Promoted by at least two-thirds of the district in the sub-region; (vii) Among commodities promoted by the Parish Development Model (PDM). Other considerations included being socially acceptable by farmers – by gender and inclusiveness of vulnerable groups; and potential to use as feedstock for value addition/ability to support other enterprises.

households as well as marginalized groups youth, women, and the elderly. Priority and attention shall be given to youth engagement and at least 40% of the direct beneficiaries are expected to be women. The indirect beneficiaries are the household members of the project participants and the users of the rehabilitated lands and sustainably managed natural resources that have not benefited directly from the project but benefitting directly from project activities.

Table 1-1: Summary of the project areas and potential enterprises

Sub-region	Districts	Enterprises
Busoga	Buyende, Kamuli, Luuka, Kaliro, Namutumba, Bugiri, Bugweri, Iganga, Mayuge, Namayingo	fish farming (cages & ponds), livestock (pigs, poultry, dairy, beef cattle), avocado, macadamia
Bukedi	Tororo, Butaleja, Busia, Kibuku, Butebo, Pallisa, Budaka	pond fish farming, cage fish farming, livestock (dairy, pigs, poultry), avocado, macadamia, vegetables
Elgon	Mbale, Bulambuli, Namisindwa, Bududa, Sironko, Kapchorwa, Kween, Bukwo, Manafwa	livestock (pigs, dairy), avocado, macadamia, vegetables
Karamoja	Kaabong, Moroto, Nabilatuk, Nakapiripirit, Amudat, Abim, Napak	livestock (goats, beef cattle), sorghum, apiculture, sunflower, cassava
Teso	Kumi, Bukedea, Ngora, Katakwi, Soroti, Serere, Kapelebyong, Amuria, Kalaki, Kaberamaido	pond fish farming, cage fish farming, livestock (poultry, pigs, dairy, beef cattle), macadamia, citrus, mangoes
Acholi	Amuru, Lamwo, Nwoya, Omoro, Kitgum, Pader, Gulu, Agago	pond fish farming, livestock (pigs, poultry, dairy, beef cattle), macadamia, citrus, mangoes
Lango Sub-regions	Apac, Oyam, Lira, Kwania, Dokolo, Amolatar, Alebtong, Kole, Otuke	pond fish farming, livestock (pigs, poultry, beef cattle), pond fishing, avocado, citrus, mangoes
West Nile	Koboko, Maracha, Moyo, Pakwach, Nebbi, Yumbe and Zombo, Madi-okollo, Obongi	pond fish farming, (livestock (beef cattle, pigs, poultry), mangoes
Ankole	Rwampara, Ntumgamo, Rukingiri, Kiruhura	dairy
Kigezi	Kabale	dairy
North Buganda	Nakasongola	coffee, cage and pond fish farming, dairy
Rwenzori, Kamwenge	Ntoroko	coffee, dairy, macadamia
Bunyoro	Kamwenge	coffee, pond and pond fish farming, beef, macadamia

1.3 PROJECT COMPONENTS AND ACTIVITIES

The project consists of five (5) components:(i) Strengthening Climate Smart Agricultural Research, Seed and Agro-Climatic Information Systems; (ii) Promoting Adoption of Climate

Smart Agricultural Technologies and Practices; (iii) Investments in Market Development and Linkages to Selected Value Chains; (iv) Contingency Emergency Response, and (v) Project Coordination, Management, Monitoring, Evaluation and Learning.

1.3.1 COMPONENT 1: STRENGTHEN CLIMATE-SMART AGRICULTURAL RESEARCH, SEED AND AGRO-CLIMATIC INFORMATION SYSTEMS.

This component will support the development, validation, packaging, dissemination and adoption of context--specific CSA Technologies, Innovations & Management Practices (TIMPs) to target beneficiaries. It will facilitate investments to develop sustainable seed production, and marketing systems. It will enhance climate risk management to improve prediction of, response to, and planning capacity for climate change management at the national, local and community levels. The component will also strengthen technical and institutional capacity to deliver technologies and support the development of the seed delivery systems.

Sub-component 1.1. Supporting Climate-Smart Agricultural Research and Innovations (US$8.8 million – IDA). This subcomponent will finance the adaptation, validation, and dissemination of context-specific CSA TIMPs that will be developed and validated through demand-driven adaptive research and technology incubation approaches. More specifically, this sub-component will finance collaborative research programs to develop and promote CSA TIMPs. Under the sub-component, the National Agricultural Research Organization (NARO) will administer a Competitive Research Grant (CRG) scheme to finance adaptive and applied research activities for development of demanded CSA TIMPs and emerging technology needs. Funding will be provided through two critical windows: Window 1 - to support adaptation of generic technologies to various agro-ecologies and needs; and Window 2 - to support research addressing emerging climate change challenges for which technologies may not be readily available for uptake and adaptation. Research will be conducted through partnerships with the private sector, academia, and various players in the National Agricultural Research System (NARS) and will include TIMPs demanded by farmers from Refugee Hosting Districts (RHDs). The subcomponent will also support training of MSC and PhD scientist to build critical capacity for Climate Smart Agriculture research.

Sub-component 1.2: Building Competitive and Sustainable Seed Systems (US$12.9 million – IDA; US$1 million – WHR). This sub-component will facilitate partnerships between the National Agriculture Research System, the private sector, and farmer organizations to multiply seeds, planting materials and stocking materials that are climate smart. Support will be provided for capacity building of farmers and farmer organizations to multiply seeds and stocking materials, establish out-grower schemes in the community; and directly contract with private sector multipliers. The sub-component will finance crop, livestock, and aquaculture breeding programs; and promote private sector and community (farmers) involvement in production and distribution of commercial seed. Interventions will be aimed at strengthening seed, breed, and fingerling production systems including strengthening decentralized Artificial Insemination (AI) services by supporting service providers -to acquire infrastructure, equipment, technology, and technical skills for seed production. Quality assurance of seeds and breeds will be undertaken by the relevant MAAIF institutions through established channels. Financial support will be provided through matching grants depending on the seed and breed actors. Guidelines for matching grants will be developed as part of the Project Implementation Manual (PIM).

Sub-component 1.3. Strengthening Agro-Climate Monitoring and Information Systems (US$12.6 million-IDA). The sub-component will finance the production, transmission and timely delivery of accurate weather data and information. It will support the strengthening of agro-weather

forecasting and its dissemination tools through: (a) improving agro-meteorological forecasting and monitoring; (b) using big data to develop a climate-smart, agro-weather information system and advisories; and (c) building the technical capacity for agro-meteorological observation and forecasting, and real time delivery of weather information and advisories to target farmers including refugees and host communities. The sub-component will finance: (i~~i~~) establishment of functional automated weather stations in locations where gaps have been identified; (ii) partnerships with local and international institutions to support climate information development using global data sources such as satellite data; (iii) developing agroclimatic and climate smart digital tools to facilitate access to early warning, agroclimatic, and pest and disease surveillance information; (iv~~ii~~) establishment of soil organic carbon monitoring reporting and verification of Greenhouse Gas Removals including lab analysis for tracking application, adoption and impact of TIMPs; and (v) enhancement of UNMA's capacity in agro-met data collection, management, analysis and dissemination.

Sub-component 1.4. Strengthening Institutional Capacity for Development and Dissemination of CSA TIMPs (US$31.3 million – IDA; US$1.3 million – WHR). This sub-component will support strengthening technical and institutional capacity of the ZARDIs and the Animal Genetic Resources Centers (ANGRCs) to deliver CSA TIMPs, and support development of sustainable climate smart seed delivery systems to all the project districts including RHDs. Under technical capacity strengthening the sub-component will finance: (a) short-term training and re-tooling of staff (mainly from ZARDIs) in CSA research; (b) hiring interns in specialized areas to support the existing scientific staff at ZARDIs; (c) strengthening research-extension linkage through specified training of district subject matter specialists (SMSs) and improving knowledge management systems; and (d) training of district extension staff, and farmer producer organizations on use of weather and climate information and advisories. Institutional capacity building activities will finance the refurbishment and/or upgrading of selected facilities and infrastructure such as communication equipment, animal experimental structures, seed stores, small seed processing plants and fish fingerling production structures. Financing will be provided for upgrading and operationalizing the Weather Information Dissemination System (WIDS) using ICT platforms and provisions made for laboratory and value addition equipment, motor vehicles, and farm machinery for selected institutions.

1.3.2 COMPONENT 2: PROMOTING ADOPTION OF CLIMATE SMART AGRICULTURE TECHNOLOGIES AND PRACTICES.

The component will support investments in and adoption of climate smart agriculture (CSA) technologies, innovations, and management practices (TIMPs), including sustainable land management (SLM) practices for improved resilience, agricultural productivity, and incomes in project areas.

Sub-Component 2.1. Productivity Enhancement and Resilience Investments for income generation (US$168 million – IDA; US20 million - WHR). This sub-component will finance CSA investments[1] in the form of community micro-projects identified through participatory processes, and strategic district level sub-projects to help beneficiaries achieve the triple wins of increased productivity, enhanced resilience, and reduced GHG emissions. Financing will cover project districts including Refugee Hosting Districts (RHDs). To finance these investments, matching grants will be provided through two windows: (i) community-level investments to finance micro-projects; (ii) district-level investments to finance strategic larger sub-projects that benefit several sub-counties and communities.

The sub-component will provide incentives at the district level to promote adoption of climate smart sustainable land management (SLM) technologies and practices on both communally and privately owned lands. The sub-component will provide an incentive to small-holder farmers in their communities, to participate in the construction of recommended soil and water conservation (SWC) structures such as terraces, contour bunds, and water retention ditches, restoration of degraded wetlands, riverbanks, and lakeshores stabilization work on communally owned land. The sub-component will provide payments for Labor Intensive Public Works (LIPW) mainly during the agricultural off-season, to catalyze the promotion and adoption of appropriate SLM technologies. Communities participating in the LIPW will be encouraged to save some of the resources earned from the LIPW contracts in their group savings. They will be trained in the management of village revolving funds (VRFs) to be used in the sustainable maintenance of the established SLM structures. The sub-component will also provide financial incentives to farmers whose private lands constitute a large part of the watershed, that construct and adopt recommended SLM practices. This will enable implementation of a holistic and integrated watershed management approach. All promoted SLM practices will be applied to the selected value chains to ensure sustainable productivity increases. Mechanization and irrigation services to enhance commercial production as well as weather information education will also be provided to target beneficiaries through appropriate financing arrangements. Non state actors including private sector service providers will be contracted to provide services that the public extension system is not well placed to provide.

Sub-component 2.2: Productivity enhancement and resilience for food and nutrition security in refugee settlements (US$5 million – WHR). The sub-component will support refugees to access TIMPs for their selected crops, livestock including poultry and aquaculture including soil and water management, and agroforestry. Selected commodities will primarily focus on addressing food and nutrition requirements for refugee settlements given the critical challenges of food shortages and reduced funding to refugee settlements. A nutrition grant will be provided for investments in FGs micro-projects such as sourcing for foundation technologies for group multiplication and demonstrations. Given the poor food and nutrition status of especially the under 5-year-olds in the refugee camps, this subcomponent shall scale up existing food systems-based approaches for dietary diversity e.g., mainstreaming backyard/kitchen gardens for production of micronutrient-rich foods, adoption of micronutrient rich cultivars like iron rich beans, orange-fleshed sweet potatoes, and production and consumption of Vitamin C rich foods. The production of such micro-nutrient foods by CIGs in refugee hosting districts for sale and supply to refugee settlements will also be supported.

Under the sub-component financing will be provided to partner organizations that support nutrition education to refugees and host communities with particular emphasis on children, pregnant women, and lactating mothers. Funding will be provided to POs to enhance information and knowledge management on food and nutrition education in refugee settlements Secondary support will be provided through a matching grant to organized refugee farmer groups to access quality inputs such as seeds, fertilizers, micro-irrigation kits and mechanization among others, to enable them increase productivity of the selected value chains. Where necessary, this support would include facilitating refugee households' access to financial services. At production level, appropriate mechanization and water for agricultural production technologies will be provided on a case-by-case basis. Refugee FGs will be supported through TA, to manage an internal savings mobilization scheme, which will double as revolving fund

scheme. The scheme will be a source of financing for individual farmers' needs including matching the micro-project grant for purchase of production inputs, equipment, and application of CSA TIMPs.

Sub-Component 2.3. Building institutional capacity for productivity enhancement, resilience, and strengthening service delivery (US$4 million-IDA; US$ 7.5 million - WHR). This sub-component will build institutional capacity at the district, sub-county, parish, and community levels to plan, implement, manage, and monitor sub-county/district sub-projects and community micro-projects in project area. Specifically, the sub-component will invest in: (a) building the capacity of districts, sub-counties in CSA planning and prioritization of needs and mobilizing and organizing farmer groups and aggregating them into higher level institutions (Producer Associations and Producer Organizations); (b) strengthening the capacity of districts and sub-counties to deliver agricultural extension services and oversee implementation of sub-projects; and (c) contracting of non-state actors to support community mobilization and strengthening of farmer and community institutions in planning and implementation of micro-projects. The Community Driven Development (CDD) approach will be used to enable the project to re-orient community mindset towards climate change mitigation and adaptation for ecosystem protection and restoration, and to manage technology uptake and promotion. The sub-component will also facilitate the provision of information, knowledge and advice through farmer field schools and lead farmers established and selected for the purpose of last mile service delivery.

Institutional capacity building and strengthening in refugee settlements and RHDs will be based on existing institutions established in refugee settlements and RHDs and/or modified to best suit promotion of CSA TIMPs. Relations between farmer institutions in refugee settlements and in host communities will be strengthened. Financing will support (i) capacity building of common interest farmer groups in refugee settlements and in host communities for increased productivity and resilience; (ii) strengthening relations between farmer institutions in refugee settlements and in host communities for efficient project implementation; (iii) strengthening capacity of the Refugee Hosting Districts (RHDs) local governments as well as humanitarian and development agencies in provision of agricultural extension services; (iv) recruitment of community-based facilitators (CBFs) in refugee settlements and host communities to provide last mile service delivery to beneficiaries; (v) support the development of Agricultural settlement land management plans by MAAIF and OPM for each RHD with input from United Nations High Commissioner for Refugees (UNHCR); and (vi) developing partnerships between refugees and host communities for land utilization to increase access to land for agricultural production.

1.3.3 COMPONENT 3: INVESTMENTS IN MARKET DEVELOPMENT AND LINKAGES FOR SELECTED VALUE CHAINS).

The objective of this component is to improve access to remunerative markets through increased access to harvesting, post-harvest handling, storage, value addition, and market linkage services, equipment, and infrastructure by higher-level institutions (Producer Associations and Producer Organizations (POs) established under sub-component 2.3.

Sub-component 3.1: Investments in Market development and linkages for selected value chains for non-refugee districts (US$44 million – IDA). The project will support farmers who are not refugees through investments in (i) Strengthening the institutional capacity of POs for demand articulation, business planning and market access; (ii) Business Development Services which include (i) strengthening of the POs in governance; and managerial and technical capacity; (ii) technical skills in entrepreneurship and business plan development; (iii) financial literacy and linkage to the formal financial sector; (iv) negotiation; and (v) partnership development and networking through Productive Alliances (PAs) with potential off-takers and other value chain stakeholders. Farmers in POs will receive services through Technical Assistance (TA) by the existing pluralistic agricultural extension system and private service providers and through Matching grants. Financing will also be provided for: (iii) Clean energy equipment, machinery and infrastructure for harvesting, post-harvest management and value addition to minimize losses, improve the quality and shelf-life of produce under a cost-sharing mechanism; (iv) Promoting market linkages to enable the production generated to access remunerative markets and (v) investments into market infrastructure and access roads, where such investments significantly improve enterprise viability and reduce commodity/product losses and where a clear need has been established. This will improve efficiency, scale up operations and increase the profitability of enterprises while reducing the carbon footprint of the agri-food value chain. The project will also finance the rehabilitation of infrastructure for specific road bottlenecks and trouble spots on rural roads, which constrain access to physical input and produce markets.

Sub-component 3.2: Investments in Market development for selected value chains for refugees and host communities (US$13.3 million – WHR). The sub-component will provide the following services (i) Skills development for improved service delivery by selected youth; and district and sub-county local government extension staff; and (ii) Investments in clean-energy equipment, machinery, and infrastructure for harvesting, post-harvest, value addition to minimize losses, improve the quality and shelf-life of produce and market access facilities including rehabilitation of existing road chokes, where a clear need has been established.

1.3.4 COMPONENT 4: CONTINGENCY EMERGENCY RESPONSE).

This zero-cost component will finance eligible expenditures under the Immediate Response Mechanism (IRM) in case of natural or man-made crises or disasters such as severe droughts, floods, specific pest and disease outbreaks, severe economic shocks, or other crises and emergencies that may occur in Uganda. This contingency facility can be triggered through formal notification of an emergency by the relevant government authority and upon a formal request from the Government to the World Bank through the MoFPED. In such cases, funds from other project components will be reallocated to finance emergency response expenditures to meet agricultural crises and emergency needs. The emergency response would include mitigation, recovery, and reconstruction following the crisis and disasters. Implementation of this subcomponent will follow a detailed Contingent Emergency Response Implementation Plan (CERIP) satisfactory to the World Bank that will be prepared for each Eligible Crisis of Emergency.

1.3.5 COMPONENT 5: PROJECT COORDINATION, MANAGEMENT, MONITORING, EVALUATION AND LEARNING).

This component will support the operational expenditures related to the management and the monitoring and evaluation of the project, including E&S management. Specifically, the subcomponent will support: (i) Building the technical capacity of MAAIF staff and project stakeholders on World Bank Environment and Social standards applicable to the project; (ii) stakeholder engagements, preparation and implementation of site specific instruments and tools including mainstreaming of ESHS aspects in other sector operations (iii) Strengthening ESHS compliance monitoring and supervision; (iv) Enhancing MAAIF's safeguards management infrastructure such as E-ESHS safeguards tracking system, hazardous waste disposal facilities and analytical monitoring equipment (such as Liquid chromatography mass spectrometer (LCMS), High performance Liquid Chromatography (HPLC), accessory equipment, glass wares, standards and reagents for testing the quality of pesticides, portable test kits for rapid detection of fake fertilizers among others); (v) Strengthening Grievance Redress Mechanism structures, (vi) Acquisition of ESHS safeguards statutory permits and certificates in respect of project components, (vii) Strengthening gender mainstreaming aspects in the project including SEA/GBV and (viii) Strengthening stakeholder, institutional participation, and mindset change including protection of vulnerable groups.

1.4 ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

This section introduces the ESMF, rationale and purpose of using framework, and describes its preparation and contents.

1.4.1 RATIONALE AND PURPOSE FOR ESMF

The project specific implementation locations and detailed information (including designs where applicable for infrastructure sub-projects) shall be known during implementation. For this reason, the framework (Environmental and Social Management Framework-ESMF) has been used instead of project-specific environmental and social assessment and management plans. The specific instruments shall be prepared during project implementation, as and when necessary, following the guidance provided in the ESMF. The purpose of the ESMF is to provide guidance to the Project Implementation Unit (PIU) and the Subproject Proponents on the E&S screening and subsequent subproject assessments during implementation, including subproject-specific plans in accordance with the requirements of Environmental and Social Framework (ESF). The ESMF provides procedures relevant to the development of the subprojects, including how to conduct screening of subprojects to assess the likely environmental and social risks and impacts and identify mitigation measures, as part of applicable subproject-specific assessment and plans. In summary, the ESMF provides a general impact identification framework to assist project implementers to screen the projects during identification and institute measures to address any negative environmental and social impacts during implementation, including mainstreaming COVID-19 Standard Operating Procedures as guided by Ministry of Health.

1.4.1.1 OBJECTIVES OF THE ESMF

The specific objectives of the ESMF are:

a. Establish clear procedures and methodologies for environmental and social planning, review, approval and implementation of sub-projects;
b. Describe project arrangements for the preparation and implementation of sub-projects in order to adequately address project E&S requirements;

c. Assess the potential generic environmental and social impacts of envisaged investments in the project;
d. Propose generic mitigation measures which will effectively address identified negative impacts;
e. Specify appropriate roles and responsibilities, and outline the necessary reporting procedures for managing and monitoring environmental and social concerns related to subprojects;
f. Determine any capacity building and technical assistance that could be needed to successfully implement the provisions of the ESMF in the institutions that have a role in the implementation of the ESMF;
g. Integrate a comprehensive gender and vulnerability concerns in all project activities to ensure inclusivity and equitable realization of project benefits; and
h. Establish the funding requirements to implement the ESMF.

1.4.2 PREPARATION OF THE ESMF

The ESMF of Uganda Emergency Locust Response Project (ELRP) (P173702) has been adapted for the purpose of the proposed UCSAT project, in line with the World Bank's Environmental and Social Framework (ESF) Policy requirements (applicable Environmental and Social Standards) and in line with the structure of "ESMF COVID-19 template". This ESMF outlines the framework and mechanisms for environmental and social (E&S) impact screening (ANNEX 1 Screening Form), determining extent/scope of required E&S assessment and the process of the actual assessment of environmental and social impacts arising from proposed project implementation, and gives generic guidance on appropriate mitigation measures, and institutional arrangements for monitoring, undertaking stakeholder engagement, feedback and grievance redress, as well as guidance on labour management (ANNEX 4 Labour Management Procedures). The ESMF also provides necessary, guidance on preparation of site specific Environmental and Social Management Plans during project implementation (ANNEX 2 ESMP and Monitoring templates). In terms of COVID-19 outbreak response, a National Response Plan has been prepared by Government of Uganda (Ministry of Health) and follows set Standard Operating Procedures (SOPs) recognized by World Health Organization, which this project will refer to and make use of.

Finally, the ESMF also provides guidance on management of likely Gender Based Violence impacts under (Annex 10 – GBV Action Plan). Other Annexes include the following: Pesticides Management Plan (Annex 3); Technical Note COVID-19 Considerations in Construction/Civil Works Projects (Annex 6); Health and Safety Management Plan and Code of Conduct for Construction Workers (Annex 7); COVID-19 Management and Monitoring Plan (Annex 8); Chance Finds Procedure (Annex 9), and Waste Management Plan (Annex 12).

The ESMF was also updated while taking into consideration the Uganda environmental impact assessment requirements. The preparation involved processes such as data-literature reviews in respect to relevant policies, laws; virtual meetings and public consultations and discussions with stakeholders and relevant sector institutions, including districts, private sector, statutory agencies, local communities and primary schools in project Districts. The study further involved compilation of reports, presentation of reports and submission of reports to various stakeholders and MAAIF.

The specific tasks undertaken during the update/preparation of the ESMF included among others the following, as applicable in line with the Terms of Reference (ToRs) for the Assignment:

1.4.3 APPROACH AND STUDY METHODOLOGY IN THE ESMF PREPARATION

The preparation of this ESMF has been done through a combination of these methodologies:

1.4.3.1 DOCUMENT REVIEW

Review of the existing baseline information and literature material was undertaken to gain an in- depth understanding of the proposed project. A desk review of the Ugandan legal framework and policies was also conducted in order to internalize the pertinent national legislation and policy framework that should be considered during project preparation and implementation, especially in light of the new National Environment Act N°.5 of 2019 and the National Environment (Environmental and Social Assessment) Regulations, 2020.

1.4.3.1.1 KEY DOCUMENTS REFERRED

Among the key documents that were reviewed during the study included:

Box 1-1-2: ToRs Critical Documents for reference (*Extract-Section 14.0*)

14 Critical Documents for reference.
The consultant will need to use the following templates for this assignment;
Templates
ESMF
SEP
ESCP
LMP
The documents below are availed to the consultant as sample, reference Reports and Guidelines for the assignment.
IPMP – Kenya
ESMF – Ethiopia
SEP – Ethiopia
FAO Guidelines
MPA PAD
ESMF NUSAF3
World Bank ESF
Uganda National Environment Act 2019
Uganda National Land Policy
Uganda Social Protection Policy 2016
The National Environment (Environmental and Social Assessment) Regulations, dated 21st December 2020).

a. Draft ESMF report for Emergency Locust Control Project MAAIF 2021;
b. ESMF for ACDP Project MAAIF, 2014;
c. ESMF for UMSFSNP MAAIF 2022;
d. UBOS, 2020 the Annual Agriculture Survey Report;
e. The Third National Development Plan-NDP III 2020/21–2024/25;
f. Draft Uganda Organic Agriculture Policy, 2009;
g. Land Use Policy, 2006; and
h. Uganda Vision 2040.

Literature and documentation also included cataloguing and analysing customary rights and practice on water resource use and management. These sources were obtained from the district administration, Sub- County, area operational NGOs, line ministries and client field staff. The sources will further help in addressing gender related issues, gaps and disparities identified among women and men as well as vulnerable groups in the project communities.

1.4.3.1.2 FIELD VISITS

A sample of the proposed districts were visited and surveyed through deliberate inspection of their respective characteristic features i.e., the environmental and social setup. The visits were done with a view of assessing the values that are likely to be affected or those that will impact the implementation of the project/subprojects. The survey findings informed the assignment in terms of E&S risk categorization and possible subprojects anticipated as well as pertinent environmental and social impacts in the various phases of the subprojects which is important in terms of the development of screening procedures and checklists.

The following districts were consulted on specified dates, and summary details of each consultation are presented in Annex 11:

Box 1-1-4: List of Districts Consulted and Consultation Dates

District	Dates of Consultations
Kisoro	20th April 2022
Kotido	19th April 2022
Mubende	1st March ,2022
Masaka	1st March 2022
Apac	24th February, 2022
Nwoya	17h February 2022
Kakumiro	10th February 2022
Lira	9th February 2022
Pallisa	9th February 2022
Mbale	9th February 2022

Kumi	7th February 2022
Yumbe	7th February 2022

1.4.3.1.3 STAKEHOLDER CONSULTATIONS

Consistent with best practices in developing ESMFs, consultations were held during field visits with the key stakeholders and institutions including: Office of the Prime Minister, Ministry of Agriculture, Animal Industry and Fisheries, Ministry of Education and Sports, Ministry of Health, Ministry of Water and Environment, Ministry of Gender, Labour and Social Development, Ministry of Local Government, the Project Coordination Unit, District Local Governments and National Environment Management Authority (NEMA). Limited consultations were undertaken since broad, inclusive community and other stakeholder consultations could not be conducted due to COVID-19 pandemic restrictions. However limited (30% of Districts), these consultations were intended to ensure that the project design and ESMF addressed existing challenges as captured on the ground. Dialogue and interviews were also held with a sample of smallholder farmers in the different host districts to capture the existing climate smart agricultural practices, pest and pesticides management methods, collect data on the magnitude of pest problems in the country, as well as the COVID-19 status at the grassroots. Broader community engagement will be conducted prior to project effectiveness as well as sensitization on the availability of a project grievance redress mechanism to support the systematic uptake, processing and resolution of project related complaints and grievances. Generally, stakeholder consultations shall be conducted continuously throughout the life cycle of the project.

In addition, gender considerations will be integrated into the project during implementation to reduce the gender gaps and disparities that have historically existed in the various project areas and have for long disadvantaged one gender over the other especially in terms of access to and control of resources as well as decision making in various aspects. Addressing gender concerns will empower especially women to make informed decisions and choices that they could not make before due to the patriarchal nature of our society.

1.4.3.1.3.1 OBJECTIVES OF THE STAKEHOLDER CONSULTATIONS

The consultations with these stakeholders were carried out to specifically achieve the following
objectives:

a. To provide information about the project and to tap stakeholder information on key environmental and social baseline information in the project area;
b. To provide opportunities to stakeholders to discuss their opinions and concerns and accordingly inform project design;
c. To identify specific interests and enhance the participation of women, the poor and vulnerable groups; and
d. To inform the process of developing appropriate management measures as well as institutional arrangements for effective implementation of the UCSAT.

1.4.3.1.4 METHODS OF CONSULTATIONS

1.4.3.1.4.1 VIRTUAL MEETINGS

Cognizant of COVID-19 pandemic, virtual approach to consult the stakeholders in the study was used. Through the Project Coordination Unit (PCU), a list of key stakeholder entities was provided to the Consultant together with their telephone contacts. To ensure that stakeholders have a clear understanding of the purpose for being engaged, introductory telephone calls were first made by the Project Coordinator to the stakeholders after which, the Consultant followed with subsequent engagements. This helped the consultant to have an entry point and build rapport with the officers in the various organizations that had been earmarked for consultations. This was done with the use of a checklist to guide the interview sessions.

1.4.3.1.4.2 FACE TO FACE CONSULTATIONS

Where it was deemed feasible and safe, face to face consultative meetings were held following Ministry of Health COVID-19 Standard Operation Procedures alongside WHO Guidelines as well as World Bank COVID-19 Guidelines[4]. At its bare minimum, the meetings observed the following:

a. Those attending were made to ensure that, a distance of at least one meter between each other was observed during the consultation meetings (Figures 1-2 & 1-2);
b. At the entrance to the meeting places, there were adequate hand washing facilities with soap and water and whoever entered the meeting venue had to hand wash and sanitize before admission;
c. All participants were required to wear a face mask at all times, ensuring complete coverage of the nose, and mouth;
d. The meeting areas were clean and hygienic and surfaces of plastic chairs and tables were regularly cleaned with disinfectants (soap and water) i.e., at least before and after the meeting;
e. During the meetings, some meeting DO'S and DON'TS were explained to participants such as:
   - ❖ Covering your mouth and nose with tissue or a handkerchief when coughing and sneezing;
   - ❖ The handkerchief once used is wrapped properly in a polyethene bag for washing and ironing after leaving the meeting. Those with disposable tissues should dispose used tissues into provided waste bins to protect others from any virus released through cough and sneezing;
   - ❖ Wash hands with soap and water or use alcohol-based hand rub immediately after using the tissue or handkerchief;
   - ❖ Avoid touching your eyes, nose, and mouth at all times. Hands touch many surfaces including money which can be contaminated with the virus and you can transfer the virus from the surface to yourself;
   - ❖ AVOID hand-shakes and hugging at all times; and
   - ❖ DO NOT SPIT in public. Identify secluded places like pit latrines or toilets for purposes of spitting and wash your hands immediately with soap and water.

[4] *Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings March 20, 2020*

Figure 1-1: Consultative meetings with farmers in Iganga in Eastern Uganda

Figure 1-2: Consultative meetings in Namayingo areas during ESMF study

2 POLICY, LEGAL AND REGULATORY FRAMEWORK

2.1 POLICY FRAMEWORK

2.1.1 THE NATIONAL ENVIRONMENT MANAGEMENT POLICY 1994-NEMP

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 the planned climate smart agricultural project activities, aspects of Environmental Assessment have been integrated into the project with the objective of ensuring sustainability in the project***.

2.1.2 THE NATIONAL POLICY FOR DISASTER PREPAREDNESS AND MANAGEMENT OCTOBER 2010

The main thrust of this policy is to make disaster management an integral part of the development process. It recognizes the profound impact of human activity on the interrelations within the natural environment as well as the influence of population growth, the high density of urbanization, industrial expansion, resource exploitation and technological advances. The policy also emphasizes the critical importance of restoring and maintaining the quality and overall welfare and development of human beings in their environment.

2.1.3 NATIONAL DEVELOPMENT PLAN III

The Third National Development plan (NDPIII) covers the period 2020/21 to 2024/25. Agriculture is one of the prioritized areas. Uganda is well-endowed with abundant natural resources, and a major thrust of the NDPIII is how to harness and sustainably use the country's natural resources for socioeconomic development for the benefit of current and future generations of Ugandans. The Agro-industrialization programme (Chapter 5) will address the dominant subsistence sector by increasing commercialization and competitiveness of agricultural production and agro processing. NDP-III is cognizant of the need to sustainably manage ENR and Climate Change (Chapter 7) in its development agenda. This will be key in ensuring resilience in food and clothing markets. ***How is the UCSATP driving to achieve the goal of the Programmme area 1 on Agro-industrialisation.***

2.1.4 NATIONAL AGRICULTURAL POLICY (NAP) 2013

The Vision of the Nap is "a competitive, profitable and sustainable agricultural sector" and the mission being "to transform subsistence farming to sustainable commercial agriculture." This policy is hinged on 5 objectives namely: ensure household and national food and nutrition security for all Ugandans; increase incomes of farming households from crops, livestock and all other agriculture related activities. As in the NDP iii, ENR and climate change are mentioned as important determinants of agricultural production, and accordingly prioritized. It thus aims at ensuring the coordination of the multi-sectoral interventions to remove any constraints to agricultural transformation which is taken cognizant of it and coordination mechanisms have been integrated in The Climate Smart Agricultural Transformation Project.

2.1.5 National Irrigation Master Plan For Uganda (2010-2035)

The Overall Objective of irrigation development in Uganda is: "Poverty Alleviation and Economic Growth as a result of the sustainable realization of the country's irrigation potential mitigating

the effects of climate change and contributing to the transformation of Uganda society from a peasant to a modern and prosperous country***". Therefore, these objectives of the Irrigation Master Plan are in line with the aspirations of planned UCSATP which seeks to ensure sustained agricultural production which is facing challenges because of erratic and unreliable rainfall***.

2.1.6 THE NATIONAL GENDER POLICY, 1997

The government adopted a National Gender Policy of 1997, a tool to guide and direct the planning, resource allocation and implementation of development programs with a gender perspective. The adoption of the gender policy has facilitated Uganda's gender mainstreaming programs in all sectors of the economy, implying the planned Climate Smart Agricultural Transformation Project should equally integrate gender into its implementation. Therefore, UCSAT project interventions will mainstream ***gender dimensions into its planning, implementation and reporting to address amongst others, household poverty through its compliance with the National Gender Policy for Uganda.***

2.1.7 NATIONAL POLICY ON ELIMINATION OF GENDER BASED VIOLENCE, 2016

The policy emphasizes early intervention to prevent re-victimization of and long-term effects for girls, including interpersonal violence, sexual coercion, alcohol and drug abuse and mental health problems; Reporting cases of violence against children immediately. The project teams in liaison with district officials (especially Community Development Officer-CDO) will undertake initiatives to do away with Gender Based Violence-GBV cases relating to project implementation activities.

2.1.8 THE NATIONAL HIV/AIDS POLICY, 2011

The policy provides the principles and a framework for a multi-sectoral response to HIV/AIDS in Ugandan's world of work. The policy applies to all current and prospective employers and workers, including applicants for work, within the public and private sectors. It also applies to all aspects of work, both formal and informal. ***It is expected that the Climate Smart Agricultural Transformation Project will have measures for mainstreaming HIV/AIDS interventions into its plan, programs and activities more so in its Project Implementation Manual (PIM)***.

2.1.9 OPERATION WEALTH CREATION

The GoU acknowledge that agriculture has, for a long time, been a core sector of the economy providing the basis for growth in other sectors and significantly contributing to GDP and employment. Under Operation Wealth Creation (OWC), it is the objective of GoU that national policies, interventions and programmes aim at transforming agriculture from subsistence to commercial agriculture with a target of raising household incomes to a minimum UGX20 million per household per year. ***The UCSATP will be implemented in close alignment with the OWC especially on aspects of working with the farmers.***

2.1.10 THE NATIONAL LAND USE POLICY

The overall policy goal is to achieve sustainable and equitable socio-economic development through optimal land management and utilization in Uganda. The land policy addresses the contemporary land issues and conflicts facing the Country. The vision of the policy is: "Sustainable and optimal use of land and land-based resources for transformation of Ugandan society and the economy" while 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". ***In the planned project, women are key beneficiaries in its agricultural activities and therefore, during project implementation, opinion of women have to be factored in as well as during allocation of resources for various project interventions.***

2.1.11 THE NATIONAL FISHERIES POLICY, 2004

The aim of this policy is to provide an overall national vision for the development of the fisheries subsector and bolster it by prescribing institutional arrangements for management of the subsector. The overall goal of the fisheries subsector is to ensure increased and sustainable fish production and utilization. ***The policy strategy is important for the UCSAT Project since it calls for sustainable management and development of fisheries: social, economic and environmentally sustainable use and development of the resource. The planned project is to be implemented in a manner which allows the water resources to sustainingly meet their other uses and values including fisheries as well as water supply.***

2.1.12 THE NATIONAL CLIMATE CHANGE POLICY, 2013

The goal of the National Climate Change Policy (NCCP) is to ensure a harmonised and coordinated approach towards a climate-resilient and low-carbon development path for sustainable development in Uganda. The overarching objective of the policy is to ensure that all stakeholders address climate change impacts and their causes through appropriate measures while promoting sustainable development and a green economy. The UCSATP will directly contribute to the objectives of the policy by undertaking activities that promote adaptation and mitigation. Overall, in its design, the project shall support the integration of climate change issues into planning, decision making and activities to be undertaken.

2.2 LEGAL FRAMEWORK

2.2.1 THE CONSTITUTION OF THE REPUBLIC OF UGANDA, 1995

The right to a clean and healthy environment is enshrined in Article 39 of the Constitution of Uganda,
1995. To ensure UCSATP's compliance with the Constitutional obligations on sustainability, an ESMF has been prepared which outlines mechanisms for environment assessment and generic mitigation measures included therein.

2.2.2 THE AGRICULTURAL CHEMICALS (CONTROL) ACT, N^{O}. 1 OF 2006

Under this Act, the requirement of packaging, labelling or advertisement of agricultural chemicals is relevant in pesticides management to prevent illegal activities related to mis-labelling and mis-packaging. Section 4 provides requirements for Import, export and sale of agricultural chemicals, summarized here: no person shall import into or sell in Uganda any

agricultural chemical unless that chemical has been registered, packed and labelled in accordance with regulations made under this Act and conforms to the standards specified in such regulations.

2.2.3 THE NATIONAL ENVIRONMENT ACT 2019

Part X – Environmental and Social Assessment contains Sections that provide requirements for E&S Assessments, level of assessments, risk categorization, application of mitigation hierarchy and decommissioning of projects. Schedule 4 of the NEA-2019 lists projects (Moderate E&S Risks and Impacts) for which a Project Brief (equivalent of ESMP) and Screening is required (specifically under Part-1: Activities N^{o}.1b Community Access Roads, N^{o}.4e Support facilities for utilization of water resources and water supply of less than 1000m^3/day and valley dams & tanks of less than vol. 1,000,000m^3, N^{o}.6 Agriculture, livestock, range management and fisheries). ESMF outlines some of the salient impacts in UCSAT project as well as mechanisms for conducting further assessments on the project sub-components. Section 113 and Schedule 5 provide requirements and guidance for Full ESIA for sub-projects considered to pose Substantial Risks and Impacts.

2.2.4 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). In conformity with this Act, the respective District Local Governments shall be involved in the implementation of UCSAT project.

2.2.5 THE PUBLIC HEALTH ACT CAP. 281

The Act provides for preservation of human health and gives local authorities powers to prevent any pollution dangerous to the water supply, to which the public has access. The Act is relevant in cases where water bodies have been exposed to pesticides.

2.2.6 OCCUPATIONAL SAFETY AND HEALTH ACT N^{O}. 9, 2006

The Act obliges the employer to ensure, as far as is reasonably practicable, that the working environment is kept free from any hazard due to pollution. It further states that where there is major handling of chemicals or any dangerous substances which are liable to be airborne or released into rivers, lakes or soil and are a danger to the animal and plant life, it shall be the duty of the employer to arrange for equipment and apparatus used to monitor the air, soil, and water pollution and arrange for actual monitoring of these mediums, with a view to rendering them safe from the dangerous undertaking.

2.2.7 THE EMPLOYMENT ACT, 2006

This Act spells out general principles regarding elimination of forced labour, discrimination in employment, sexual harassment and provisions to settle grievances. It further provides that, a child under the age of twelve years shall not be employed in any business, undertaking or workplace. ***No doubt, this law will oblige the project to ensure no employment of children below the age of 18 years in the project activities.***

2.2.8 THE WORKERS COMPENSATION ACT, CAP 225

This law provides for compensation to workers for injuries suffered in course of their employment. According to the Act, an employee is entitled to compensation for any personal injury from an accident or disease arising out of and in the course of his or her employment even if the injury or disease. Under this Act, compensation will be as provided in the law especially in line with preconditions therein. The compensation is to be paid by the employer whether the worker was injured as a result of his or her own negligence, mistake, omission or commission.

2.2.9 UGANDA NATIONAL BUREAU OF STANDARDS ACT, CAP. 327

The relevant provision of this Act prohibits any person to import, distribute, sell, manufacture or have in possession for sale or distribution any commodity for which a compulsory standard specification has been declared unless such commodity conforms to the compulsory standard or unless the commodity bears a distinctive mark which is key is procurement of pesticides for the control of pests.

2.2.10 WATER ACT, CAP 152

The Water Act vests all rights to investigate, control, protect and manage water in the Government of Uganda (Section 5). The Act penalizes pollution of water or the causing of risk of pollution of water works, unless the activity is licensed by the Act (Section 31). The implementation of this Act therefore needs to be cognizant of possible pollution of water sources by pesticides.

2.2.11 DOMESTIC VIOLENCE ACT 2010

The Act provides for the protection and relief of victims of domestic violence; provides for the punishment of perpetrators of domestic violence and also spells procedures and guidelines to be followed by the court in relation to the protection and compensation of victims of domestic violence as well as matters relating to cases of domestic violence in general. This act gives guidance to workers on how to handle cases of domestic violence.

2.2.12 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 UCSAT project has integrated Environmental Assessments in its ESMF in compliance with the Act provisions.

2.2.13 NATIONAL FORESTRY AND TREE PLANTING ACT, 2003

The National Forestry and Tree Planting Act 2003 is the main law that regulates and controls forest management in Uganda. Section 38 of this Act provides for an environment impact assessment to be undertaken for an activity that may have significant impact on a forest. ***For this project, no forest degradation activity shall be supported/financed. The project will instead promote forest restoration as an integral part of SLM activities to be supported by the project.***

2.2.14 THE CLIMATE CHANGE ACT 2021

The Climate change Act, 2021 gives effect to the UN Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement. Section 9 of the Act permits the Minister responsible for Climate Change matters to develop further regulations regarding participation in climate change mechanisms such as emissions trading mechanisms, and section 23 allows the Minister to make further regulations regarding the responsibilities of private entities. ***The UCSAT project will implement measures to mitigate risks to climate change and build resilience against the shocks of climate change across the selected value chains***

2.2.15 THE REFUGEES ACT, 2006

Uganda enacted the Refugees Act 2006 to give effect to the 1951 Convention Relating to the Status of Refugees and its 1967 Protocol, as well as to honour Chapter Four of the 1995 Constitution of the Republic of Uganda. Refugees are entitled to the rights provided for in the Refugee Convention, the OAU Convention, and any other instrument relating to refugees to which Uganda is a party. They are also bound by the obligations set out in those documents. While implementing its activities, the project shall take into consideration the provisions of the Act and shall be cognizant of the relations with the host community, for the benefit of both parties and the environment.

2.2.16 REGULATIONS

2.2.16.1 THE NATIONAL (ENVIRONMENTAL AND SOCIAL ASSESSMENT) REGULATIONS, 2020

The ESIA Regulations gives a systematic ESIA procedure in Uganda. It gives ESIA 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 of offenders. It recognizes three levels of ESIA:

a. An environment impact review/screening shall be required for small scale activities that may have low or negligible E&S risks and impacts;
b. Environmental impact evaluation for activities that are likely to have moderate E&S risks and impacts; and
c. Environmental impact study for activities that will have significant and high E&S risks and impacts.

In part, the ESIA Regulations apply to a project or activity for which a Project Brief (mentioned under the NEA-2019) is required. In all, issues of ESIA are being addressed in the project in line with these Regulations.

2.2.16.2 EMPLOYMENT (SEXUAL HARASSMENT) REGULATIONS 2012

The Employment Sexual Harassment Regulations states that an employer with more than twenty-five employees shall adopt a written policy against sexual harassment which includes a notice to employees that sexual harassment is unlawful, a statement of consequences for employees who are found to have committed sexual harassment, and education and training programs on sexual harassment for all employees on a regular basis. The contractor will put in place measures to address sexual harassment during execution of the project and such measures shall include, creating a sexual harassment committee in which the committee receives and registers complaints of sexual harassment.

2.2.16.3 NATIONAL ENVIRONMENT (WASTE MANAGEMENT) REGULATIONS, 2020

The National Environment (Waste Management) Regulations, 2020 apply to all categories of hazardous and non-hazardous waste and to the storage and disposal of hazardous waste and its movement into and out of Uganda. The regulations promote cleaner production methods and require a facility to minimize waste generation by eliminating use of toxic raw materials; reducing toxic emissions and wastes; and recovering and reuse of waste wherever possible. The Regulations oblige the Developer to put in place measures for proper management of waste and of which basic guidance on handling and disposal of any waste arising from the use of pesticides has been provided in the ESMF.

2.2.16.4 THE NATIONAL ENVIRONMENT (NOISE STANDARDS AND CONTROL) REGULATIONS, 2003

Part III Sec. (1) requires machinery operators to use the best practicable means to ensure that the emission of noise does not exceed the permissible levels. Noise generation is inevitable during road construction, these standards shall apply for purposes of keeping noise levels to limits bearable

2.2.16.5 NATIONAL ENVIRONMENT (WETLANDS, RIVER BANKS AND LAKE SHORES MANAGEMENT) REGULATIONS, 2000

The National Environment (Wetlands, River Banks and Lake Shores Management) Regulations, N^{o}. 3/2000 Section 34 requires a developer to conduct Environmental impact assessment to a project which may have a significant impact on a wetland, river bank or lake shore. ***The UCSATP aims at sustainable and restoration of ecosystems hence, it implementation will ensure observance and protection of buffer zones in wetlands and lakeshores.***

2.2.16.6 THE WATER RESOURCES REGULATIONS 1998

The Water Resources Regulations, 1998 regulates the utilisation of water resources through extraction of water either surface or ground water. ***The UCSAT project aims at improving mechanisms to enable direct project beneficiaries to access clean water for irrigation and water preservation. The project will thus ensure that required studies and statutory permits are acquired during project implementation.***

2.2.16.7

The National Environment (Noise Standards and Control) Regulations, 2003

Both during construction and operation of the project activities, noise generated should not exceed limits prescribed by these regulations. Part III Section 8 (1) requires machinery operators, to use the best practicable means to ensure that the emission of noise does not exceed the permissible noise levels. The regulations require that persons to be exposed to occupational noise exceeding 85 dBA for 8 hours should be provided with requisite ear protection.

2.3 WORLD BANK ENVIRONMENTAL AND SOCIAL FRAMEWORK 2018

The World Bank Environmental and Social Framework is an elaborate systematic approach to guaranteeing sustainable development. The Environment and Social Framework (ESF) sets out the Bank's vision for sustainable development, the Environment and Social policy for investment

project financing and ten Environmental and Social Standards (ESS) that guide borrowers in the course of project implementation. The standards have been applied to:

a. Set out requirements for Government of Uganda relating to the identification and assessment of E&S risks and impacts associated with the proposed Climate Smart Agricultural Transformation Project, while applying the mitigation hierarchy, which is also provided for in Uganda's National Environment Act, 2019;
b. support Government of Uganda in achieving good international practice relating to environmental and social sustainability;
c. assist GoU in fulfilling their national and international environmental and social obligations, with stronger emphasis on integrated environmental and social assessment and risk management;
d. Increase responsiveness and attention to project issues during implementation through adaptive risk management and proportionality;
e. enhance non-discrimination, transparency, participation, accountability and governance, and this will help highlight- areas that need further strengthening in Uganda's own systems;
f. Adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities;
g. Utilize national environmental and social institutions, systems, laws, regulations and procedures where appropriate;
h. Promote improved environmental and social performance, in ways which recognize and enhance Borrower capacity; and
i. enhance the sustainable development outcomes of projects through ongoing stakeholder engagement. The Bank's Access to Information Policy applies to the Climate Smart Agricultural Transformation Project and entire ESF and requires disclosure of information. The following ESSs are relevant and will apply to the proposed project:

2.3.1 ESS1: ASSESSMENT AND MANAGEMENT OF ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

ESS-1 is relevant and applicable to the UCSAT project. This ESS makes it incumbent upon the project implementers through the existing institutional framework to conduct comprehensive assessment and monitoring of environmental and social risks and impacts that are anticipated to arise in the project during its implantation and subsequent implementation phases. The environmental and social assessment informs how the project will be handled in a sustainable manner. ESS1 further aids the identification of mitigation measures and action to further improve decision-making, while emphasizing application of the mitigation hierarchy to avoid, minimize, reduce and mitigate environmental and social (E&S) risks and impacts, and where significant residual or cumulative impacts remain, to compensate for or offset such impacts.

In order to systematically manage the likely environmental and social risks and impacts, the project has developed an Environmental and Social Management Framework (ESMF) which includes among others the following: Labour Management Procedures; Stakeholder Engagement Plan; Pest Management Plan (PMP); "Chance Finds" Procedure and a template for preparing Environmental and Social Management Plans (ESMPs) or Project Briefs (PB) as defined in the national legislation, as necessary for managing risks and impacts related to any civil works. The ESMF also outlines the implementation arrangements, including a capacity building program for adequate environmental and social risk management for various project interventions. All subprojects will be subjected to E&S screening and where necessary develop

and implement an ESMP that will be reviewed and approved by the Bank before the start of implementation. In order to ensure implementation of the ESF requirements listed above, MAAIF shall develop and agree to with the World Bank an Environmental and Social Commitment Plan (ESCP). The ESCP will set out measures and actions required for the project to achieve compliance with the ESSs over a specified timeframe. The ESCP will form part of the project Legal Agreement and will be disclosed before Project Appraisal, as the ESMF shall be.

2.3.2 ESS2 LABOUR AND WORKING CONDITIONS

Environmental and Social Standard 2 is relevant and applicable to the project since the project is expected to have workers engaged to undertake various activities. ESS2 is cast in such a way as to clarify workers' rights, benefits and other general work conditions irrespective of the category they find themselves in. The Bank recognizes the importance of employment creation, equal opportunities in employment, income generation and poverty alleviation albeit the challenges of worker exploitation, discrimination, sexual harassment, child labor and a horde of other ills that may compromise project benefits. Through ESS2, the Bank seeks to enhance the protection of workers' rights as well as those persons who access the project work environment and promote a safe work environment. In line with this, the project will put in place measures to ensure appropriate safety and health measures are instituted for protection and promotion of safe and healthy working environment as well as ensuring a safe work environment in terms of minimizing injuries, disease spread, feeling of security, positive communication and general perception of employees well-being a priority.

As part of this ESMF, Labor Management Procedures (LMPs) (ANNEX 4) have been developed to manage risks to occupational health and safety and working conditions in line with the requirements of ESS2 and ESS4. The recruitment of child labour is forbidden in accordance with ESS2 and Ugandan law, due to the hazardous nature of the work involving use and management of pesticides which is forbidden for any person under the age of 18. In line with ESS2, the MAAIF will establish and operate a worker grievance mechanism to enable project workers to raise workplace-related concerns, including regarding workplace sexual harassment. In line with ESS2 and Ugandan law, the MAAIF will also ensure that the use of forced labour and labour procured through the trafficking in persons is prohibited regarding all workers engaged/employed in relation to the UCSAT project.

2.3.3 ESS3 RESOURCE EFFICIENCY AND POLLUTION PREVENTION AND MANAGEMENT

Environmental and Social Standard 3 is relevant and applicable to the project. This ESS focuses on issue of resource efficiency and pollution prevention and management. This Standard contains guidance and requirements for use and management of pesticides. The Borrower will consider ambient conditions and apply technically and financially feasible resource efficiency and pollution prevention measures in accordance with the mitigation hierarchy. The measures will be proportionate to the risks and impacts associated with the project and consistent with GIIP, in the first instance the EHSGs.

Where the use of pesticides is envisaged, ESS3 requires use of pest management measures. IPM refers to a mix of farmer-driven, ecologically based pest control practices that seeks to reduce reliance on synthetic chemical pesticides. ESS3 requires a Stand-alone Pest Management Plan to be prepared for project activities that entail use of substantial amounts of pesticides. The proposed UCSAT project is not expected to use substantial amounts pesticides, and therefore the PMP has been prepared as part of the ESMF (ANNEX 3). The ESMF (PMP) have adopted use

of FAO guidelines on Safety and environmental precautions, the World Bank Group General EHS Guidelines and applicable national legislation and regulations on pesticide control products.

2.3.4 ESS4 COMMUNITY HEALTH AND SAFETY

Environmental and Social Standard 4 is relevant and applicable to the project. ESS4 focuses on health, security and safety issues of project affected communities. Project actions may compromise security, health and safety around its operation areas, public areas and settlements, including through residual impact of pesticides, traffic accidents, chronic diseases, pollution of water sources, reduced accessibility to social services, noise nuisance, dust nuisance, community conflicts, non-payment for community services offered and through labour influx and spread of communicable diseases, including COVID-19, Hepatitis B and HIV/AIDS. In line with ESS4, the MAAIF will evaluate the risks and impacts of the project on the health and safety of the affected communities during the project life -cycle, including those who, because of their particular circumstances, may be vulnerable. MAAIF will identify risks and impacts and propose mitigation measures in accordance with the mitigation hierarchy. Host Communities shall be mobilized and trained on health and safety aspects and requirements of all project activities, including the management and the safety of hazardous materials from the pesticides is in accordance with Standard Operating Procedures and put in place emergency preparedness and response measures.

Since the planned dams are considered Small and Low-Risk Dams, dam safety measures designed by qualified engineers in accordance with Good International Industry Practice (GIIP) will be adopted and implemented.

2.3.5 ESS5 LAND ACQUISITION, RESTRICTIONS ON LAND USE AND INVOLUNTARY RESETTLEMENT

ESS5 is relevant/applicable_because the project may involve land acquisition or involuntary resettlement. MAAIF has prepared a Resettlement Policy Framework (RPF) and Process Framework (PF) to provide guidelines on addressing any potential physical and/or economic displacement impacts. The RPF has provided a Voluntary Land Donation Procedure/Land Donation Consent Form, if participating farmers are required to donate their land to host project activities. Based on the current description of the components, there will be minimal land-take requirements and restricted to material construction sites. Subprojects with physical resettlement requirement/s are excluded from the project.

2.3.6 ESS6 BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGEMENT OF LIVING NATURAL RESOURCES

Environment and Social Standard 6 is relevant and anchors the conservation of biodiversity and sustainable management of living natural resources. Biodiversity loss during project implementation will likely impact on ecosystem services valued by humans. In addition to compromising utilitarian values, biodiversity carries inherent intrinsic value hence the protection of habitats is justified along these grounds. ESS6 shall therefore requires the observance of requirements to:

a. Conduct assessment of risks and impacts from proposed UCSAT project activities with keen emphasis on potential threats to biodiversity including habitat loss, potential introduction or proliferation of invasive/alien species, nutrient loading, pollution as well as climate change impacts amongst others;

b. Design mitigation hierarchy for all identified risks and impacts in line with GIIP/SOPs, national regulatory framework in the implementation of UCSAT project activities;
c. Undertake a differentiated approach to risk management based on sensitivity and values of identified habitats. All habitats shall be categorized as either modified, natural or critical including all the protected areas in their various forms and protection categories and regimes. This requirement shall be taken into consideration when implementing SLM activities -MAAIF will identify and map out the sensitive ecological areas that include national parks, reserves, wetlands and agronomically sensitive areas;
d. Natural Habitats: If natural habitats are identified as part of the ESIA, the Borrower will seek to avoid adverse impacts on them in accordance with the mitigation hierarchy. Where natural habitats have the potential to be adversely affected by the project, the Borrower will not implement any project related activity unless there are no technically and financially feasible alternatives; and appropriate mitigation measures are put in place following the mitigation hierarchy;
e. Critical Habitats: In areas of critical habitat, the Borrower will not implement any project activities that have potential adverse impacts.
f. Primary Suppliers: Where the Borrower is purchasing natural resource commodities, including food, timber and fiber, that are known to originate from areas where there is a risk of significant conversion or significant degradation of natural the Borrower's environmental and social assessment will include an evaluation of the systems and verification practices used by the primary suppliers and avoid those contributing to significant conversion or degradation of natural.

2.3.7 ESS7 INDIGENOUS PEOPLES/SUB SAHARAN AFRICAN HISTORICALLY UNDERSERVED TRADITIONAL LOCAL COMMUNITIES

Environment and Social Standard 7 (ESS7) deals with ensuring the meaningful inclusion of the concerns and related interests of project-affected historically underserved traditional local communities possessing the characteristics of paragraphs 8 and 9 of ESS7 in all stages of the project's life cycle, including ensuring that such communities are not disadvantaged in sharing in project benefits and development opportunities. This ESS recognizes that IPs have identities and aspirations that are distinct from the mainstream community groups in national societies and often are disadvantaged by traditional models of development. In many cases, they may not always be adequately consulted about the design or implementation of the projects that would profoundly affect their lives or communities. The UCSAT project will be implemented in areas where the *Benets* in Mt. Elgon slopes inhabit (Kween District in the Sebei region), the Batwain Southwestern region, the Iks (Kaabong District) and *Tepeth* in the Karamoja region who meet the criteria for ESS7. The whole Karamoja region would qualify to be vulnerable and marginalized communities. Potential risks and impacts on vulnerable and marginalized communities that meet the criteria of ESS7 in the areas where the project will operate are likely to be similar to those described above for other project affected local communities. However, there is also the additional risk that communities that meet the criteria of ESS7 will not receive equitable access to project benefits or that project benefits might not be devised or delivered in a manner that is culturally appropriate, or that they have not been adequately consulted about the project in a culturally appropriate manner. The SEF contains special provisions to guide meaningful engagement and grievance management with the communities that meet the criteria of ESS7. The proposed project does not involve aspects which would require Free Prior Informed Consent (FPIC), since the proposed project will NOT involve loss of, alienation from or exploitation of their land and access to natural and cultural resources. A

Vulnerable and Marginalized Groups Framework (VMGF) required to provide guidance on mitigating potential impacts on, but also on inclusion into project benefits for the Batwa, Iks and the Benets has been prepared as part of the project ESMF. A Process Framework has also been prepared to any restricted Access to Protected Areas.

2.3.8 ESS8 CULTURAL HERITAGE

ESS8 is relevant/ applicable to the project, since it entails civil works excavations, movement of earth or other changes in the physical environment which may have a direct interaction and/or impact on Cultural Heritage. This ESS has the main objectives to protect cultural heritage from adverse impacts of project activities and support its preservation. The term cultural heritage encompasses tangible and intangible heritage. A chance Finds Procedure has been prepared as part of the project ESMF, and this will be followed if previously unknown cultural heritage is encountered during project activities. It will be included in all contracts relating to construction of the project, including excavations, demolition, movement of earth, flooding or other changes in the physical environment. The chance finds procedure has set out how chance finds associated with the project will be managed. The procedure has included a requirement to notify relevant authorities of found objects or sites by cultural heritage experts; to fence-off the area of finds or sites to avoid further disturbance; to assess found objects or sites by cultural heritage experts; to identify and implement actions consistent with the requirements of this ESS and national law; and to train project personnel and project workers on chance find procedures.

2.3.9 ESS9 FINANCIAL INTERMEDIARIES

ESS9 is not relevant/ applicable to the project activities since there are no Financial Intermediaries participating in the project.

2.3.10 ESS10 STAKEHOLDER ENGAGEMENT AND INFORMATION DISCLOSURE

Environment and Social Standard 10 recognizes the importance of open and transparent engagement with project stakeholders. Success of any project is hinged on level and quality of stakeholder engagement which is an inclusive process expected to occur throughout the project life cycle. Engagement is more useful when introduced in the early phases of project development and is mainstreamed into all levels of decision-making. To this end, a Stakeholder Engagement Framework (SEF) has been prepared and shall be disclosed as part of the project ESMF.

The project will establish a structured approach to engagement with stakeholders (which would include Key relevant government institutions, districts, affected communities, Civil Society Organizations and relevant development partners working in the same field) that is based upon meaningful consultation and disclosure of appropriate information, considering the nature and geographical coverage of the project. During preparation of the ESMF, limited community consultations were undertaken because of COVID-19 pandemic restrictions. Detailed Community consultations and engagement will be undertaken prior to project effectiveness and will continue throughout project and implementation as a way to disclose and mobilize the communities. The project community consultations will focus on awareness raising regarding farmer group operations, climate smartness of proposed value chains, participation of vulnerable groups, preservation of natural resources, management of GHG, market access challenges, access to water, access to pasture, SLM activities, participation of communities during implementation of LIPW infrastructure, health and safety aspects relating to use of agro-

chemicals, general roles and responsibilities of communities in relation to overall project set up and design.

The stakeholder engagement plan takes into consideration the COVID-19 guidelines on social distancing and use appropriate means for engagement such as radios, newspapers to spread information. The project will ensure the establishment of a Community Grievance Redress Mechanism as outlined and guided in the SEF. As noted in the section on ESS2 and as provided for in ESS10, the project will also establish and operate a separate worker grievance mechanism for project workers to raise workplace concerns, including workplace sexual harassment. The engagement approaches taken will thereby ensure that information is meaningful, timely, and continuously accessible to all affected stakeholders, including use of different local languages, addressing cultural sensitivities, as well as challenges deriving from illiteracy or disabilities, tailored to the differences in geography, livelihoods and way of life.

2.3.11 THE WORLD BANK GROUP ENVIRONMENTAL, HEALTH AND SAFETY (EHS) GUIDELINES

The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry specific examples of Good International Industry Practice (GIIP). When one or more members of the World Bank Group are involved in a project, these EHS Guidelines are applied as required by their respective policies and standards. The General EHS Guidelines contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors. Applicable general guidelines include environmental, occupational health and safety, community health and safety and construction and decommissioning. These guidelines are used together with the relevant industry sector guideline(s).

Environmental, Health and Safety Guidelines for Pesticides Manufacturing, Formulation, and Packaging shall be directly applicable to this project and shall be referred to during project implementation. In addition, Agribusiness/ Food Production EHS Guidelines are applicable, depending on a sub-project prioritized by the farmer groups. Detailed General EHS Guidelines and Industry specific EHS Guidelines can be accessed at: http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/our+approach/risk+management/ehsguidelines. OR Environmental, Health, and Safety Guidelines (ifc.org)

2.4 INTERNATIONAL CONVENTIONS AND AGREEMENTS TO WHICH UGANDA IS PARTY TO

These conventions apply to the intervention on the UCSATP:

2.4.1 CONVENTION ON BIOLOGICAL DIVERSITY 1992

The Convention on Biological Diversity adopts a broad approach to conservation. It requires Parties to the Convention to adopt national strategies, plans and programs for the conservation of biological diversity, and to integrate the conservation and sustainable use of biological

diversity into relevant sectoral and cross-sectoral plans, programs and policies. The proposed programme is expected to conserve biodiversity, especially the rare and endangered species in the project area and its environs.

2.4.2 UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (1992)

The convention seeks to regulate levels of greenhouse gases (GHGs) concentration in the atmosphere, to avoid the occurrence of climate change at levels that would harm economic development, or that would impede food production activities.

2.4.3 THE FAO INTERNATIONAL CODE OF CONDUCT ON THE DISTRIBUTION AND USE OF PESTICIDES

It establishes voluntary standards for public and private institutions involved in the distribution and use of pesticides. The Code sets out a vision of shared responsibility between the public and private sectors, especially the pesticide industry and government, to ensure that pesticides are used responsibly, delivering benefits through adequate pest management without significant adverse effects on human health or the environment. It aims to promote practices that reduce the risks of handling pesticides, prevent accidental poisoning, ensure pesticides are used effectively and efficiently, and encourage pest management and Integrated Vector Management (IVM). The 2002 revision of the Code puts greater emphasis on promoting PMP than the previous version and also specifically incorporates a focus on active food-sector participation in developing and promoting IPM. The Guidelines on Management Options for Empty Pesticide Containers provides advice on the management of one-way pesticide containers following the deployment of their contents and these shall be followed as much as possible. Unless empty pesticide containers are managed correctly, they are hazardous to both mankind and the environment. There is a danger that empty containers could be reused for storing food and water, which could result in pesticide poisonings. Containers abandoned in the environment can lead to pesticide pollution in soil and groundwater. A container management scheme can minimize these risks and is part of the "life-cycle concept" as addressed in the *International Code of Conduct on the Distribution and Use of Pesticides*.

2.4.4 THE STOCKHOLM CONVENTION

The Stockholm Convention is a global treaty to protect human health and the environment from persistent organic pollutants (POPs). POPs are chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of living organisms and are toxic to humans and wildlife. POPs circulate globally and can cause damage wherever they travel. In implementing the Convention, Governments will take measures to eliminate or reduce the release of POPs into the environment. The Stockholm Convention established an initial list of 12 key POPs chemicals (the so-called dirty dozen) for which signatories are required to reduce the risks to human health and the environment arising from their release. Enlisted parties are required to take measures (legal and/or administrative) to eliminate or heavily restrict the production and use of POP pesticides and PCBs, and to minimise the unintentional production and release of POPs. The Convention covers pesticides, and industrial chemicals and by-products i.e. Aldrin, Chlordane, DDT, Dieldrin, Dioxins, Endrin, Furans, Hexachlorobenzene, Heptachlor, Mirex, PCBs and Toxaphene. 15 of the 22 Chemicals

listed under the Stockholm Convention are Pesticides or pesticide production by-products. ***Obsolete pesticide disposal must be in compliance with the Basel Convention.***

2.4.5 THE BASEL CONVENTION

The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal was concluded in Basel, Switzerland, on March 22, 1989, and entered into force in May 1992. Now ratified by 149 countries including 32 of the 53 African countries, the focus of this convention is to control the movement of hazardous wastes, ensure their environmentally sound management and disposal, and prevent illegal waste trafficking (UNEP, 2006). The parties to this convention recognize the serious problems posed by stockpiles of unused and unwanted chemical products which, because of their obsolescence, are now considered wastes. At a ministerial-level meeting held in Rabat, Morocco, in January 2001, African countries declared their intent to work with other interested parties from all sectors of civil society to rid all 53 countries of Africa of these stockpiled wastes over the next 10 years. ***Therefore, any efforts to export obsolete pesticides in the project for disposal must be in line with the Basel Convention.***

2.4.6 THE ROTTERDAM CONVENTION

The Rotterdam Convention aims to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals to protect human health and the environment from potential harm and to contribute to their environmentally sound use. Governments began to address the problem of toxic pesticides and other hazardous chemicals in the 1980s by establishing a voluntary Prior Informed Consent procedure (PIC). PIC required exporters trading in a list of hazardous substances to obtain the prior informed consent of importers before proceeding with the trade. The convention establishes a first line of defense by giving importing countries the tools and information they need to identify potential hazards and exclude chemicals they cannot manage safely. When a country agrees to import chemicals, the convention promotes their safe use through labeling standards, technical assistance, and other forms of support. ***The Project will observe these provisions when importing agro-chemicals.***

2.4.7 APPLICABLE ILO CONVENTION STANDARDS

ILO Convention Standards	Requirements
International Labour Standards (ILO) Convention (No.17) Worker's Compensation Convention (10 May 1960)	This convention ensures that workmen who suffer personal injury due to an industrial accident, or their dependants, shall be compensated on terms at least equal to those provided by this Convention.
International Labour Standards (ILO) Convention (No.29) on	The Convention adopts proposals to eliminate forced or compulsory labour. / The Project will need to employ people

Forced Labour (30 Oct 1998)	and recognise these principles.
ILO Convention (No. 87) on Freedom of Association and Protection of the Right to Organize (12 Jul 1993)	The Convention adopts freedom of association and protection of the right to organize.
ILO Convention (No.111) on Discrimination (Employment and Occupation) (19 Jul 1967)	The Convention promotes equality of opportunity and treatment in employment and occupation. / The Project will need to employ people and recognise these principles.
ILO Convention (No.138) on Minimum Age (of Employment) (30 Oct 1998)	The Convention pursues the abolition of child labour and increases the minimum age for admission to employment. / The Project will need to employ people and recognise these principles.
ILO Convention (No. 182) on the Worst Forms of Child Labour (02 Aug 2001)	The Convention obliges parties to take effective measures to prohibit and eliminate the worst forms of child labour. / The Project will need to employ people and recognise these principles.

2.5 GAP ANALYSIS BETWEEN THE KEY WORLD BANK ENVIRONMENTAL AND SOCIAL STANDARDS AND GOVERNMENT OF UGANDA'S ENVIRONMENTAL AND SOCIAL REQUIREMENTS

The platform upon which Uganda´s country system has been built is the Constitution, which commits government to protecting natural resources on behalf of the people. It explicitly encompasses the concept of sustainability, including meeting the needs of present and future generations. The State is also committed to preventing or minimising environmental damage and upholding the right of "*every Ugandan to a clean and healthy environment*". This represents the highest-level of commitment to sustainability. The National Environment Act (NEA) 2019 is the key legislation for environmental (and to a lesser extent, social) risk management.

From an environmental perspective, Uganda´s institutions have well-enough defined mandates and adequate enabling legislation, albeit with some gaps, overlaps and weaknesses. For the most part, policies, laws, regulations, and guidelines are adequately aligned with regards to the World Bank Environmental and Social Standards, especially given that the National Environment Act 2019 (NEA 2019) has been revised and significantly improved, and that new Environmental and Social Impact Assessment (ESIA) regulations have been revised following Good International Industry Practice, with participation of the World Bank.

It is worth noting that environmental management in Uganda has been largely supported by the World Bank, right from the development of the National Environment Management Policy in 1994, the National Environment Act in 1995 (updated in 2019) and the accompanying

Regulations, including the establishment of NEMA. Owing to this, most of the environmental requirements are largely influenced by the World Bank's Environmental and Social Framework. Most of the provisions of ESS-1 were adopted and as such the E&S screening and assessment methodology is virtually the same as seen in the Uganda's ESIA Guidelines of 1997 and Regulations 2020. ***Therefore, in cases where gaps are found between the WB ESF and the Government of Uganda Environmental requirements, the World Bank Environmental and Social Standards shall take precedence especially on matters which are not explicitly provided in the National Legislation requirements.***

Some of the differences include the following: first and foremost, the Ugandan Laws do not provide for Framework Approach (ESMF and RPF) but rather only specific instruments (ESIA, ESMP, Environmental Audits, RAPs). Whilst Uganda´s ESIA systems are relatively strong on biophysical considerations, they are weaker regarding assessment of social and related issues. Whereas the WB Policies provide for independent review mechanism (the Inspection Panel), there is no explicit requirement for independent review of ESIA reports under Uganda's laws, though the ESIA Regulations (2020) provide for a reference to relevant experts who may be consulted to provide specialist knowledge and to assist with understanding and interpreting technical aspects of the project. Furthermore, there is no applicable legislation on a minimum wage. Aspects of the Employment Act contradict other Ugandan laws, by allowing for the employment of children aged 14 for "light work" under adult supervision, in contradiction to Section 7 of the Children (Amendment) Act (2016) which sets the employment age at 16. The Employment Act does not clearly define hazardous employment. The legal framework also fails to provide penalties for the violation of laws prohibiting the employment of minors, contributing to high school drop-out rates, teenage pregnancies, and health issues as children find work on project sites.[5]

Under ESS-6 Biodiversity Conservation and Sustainable Management of Living Natural Resources, Uganda lacks Regulations to implement the National Forestry and Tree Planting Act and the Wildlife Act. Therefore, ESS-6 requirements on Biodiversity Conservation and Sustainable Management of Living Natural Resources shall be used to assess any impacts on natural habitats such as Forests, Rivers, Lakes and Wetlands. On ESS8 Cultural Heritage, the Ugandan legal framework is limited in scope. For example, it does not cover certain aspects such as the intangible heritage. The other area is under ESS5 (Land Acquisition, Restrictions on Land Use and Involuntary Resettlement) whereby Uganda's Land Act legal framework is restricted to fair, adequate and prompt compensation (cash), while the World Bank ESS5 requires 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 Ugandan legislation also does not provide for restoration of livelihoods, resettlement assistance and compensation at replacement value. Under circumstances like these regarding short-comings in the Uganda law on compensation and ESMF process, the provisions of ESS-5 shall be applied.

The existing gaps are summarized in Tabular form below:

[5] Uganda Social Risk Management (SRM) Technical Paper (2019)

Summary of Gap Analysis between Uganda and World Bank ESF

World Bank's Environmental and Social Standards	Uganda's Legal and Regulatory Framework	Gaps identified in Uganda legal and regulatory framework
ESS-1 Assessment and Management of Environmental and Social Risks and Impacts	• National Environment Management Policy, 1994. • National Environment Act No.5 of 2019. • National Environment (Environmental and Social Assessment) Regulations, 2020.	• Independent review is not specifically provided for under ESIA Regulations of Uganda and as a result, the review of ESIAs is commonly reviewed by government agencies; • In the ESIA review process, there is no specific legal/regulatory framework that caters for examination of the quality of the ESIA reports. Only conditions of approval/reasons for non-approval of ESIAs are provided by NEMA; • There are no administrative mechanisms for appealing a decision taken on an ESIA.
ESS-2 Labor and Working Conditions	• Employment Act 2006 • Occupational Safety and Health Act of 2006	• No applicable legislation on a minimum wage. • Section 32 of the Employment Act contradicts other Ugandan laws, by allowing for the employment of children aged 14 for "light work" under adult supervision (in contradiction to Section 7 of the Children (Amendment) Act (2016) which sets the employment age at 16). • The Employment Act fails to clearly define hazardous employment. • The legal framework also fails to provide express punitive penalties for those found in violation of laws prohibiting the employment of minors. • There is still no policy to guide its implementation of the Occupational Safety and Health

		Act (2006).
ESS-3 Resource Efficiency and Pollution Prevention and Management	• NEA, 2019 • The Agricultural Chemicals (Control) Act, Nº. 1 of 2006	• Whilst there are no gaps on pest management and the Ugandan legal system, there are no comprehensive regulations to guide the implementation of the various Acts. This hampers the control of the use of damaging pesticides.
ESS4 Community Health and Safety	• NEA, 2019 • Occupational Safety and Health Act of 2006	• WB has more elaborate provisions for Community Health and Safety
ESS-5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	• Land Act Cap.227	• restricted to fair, adequate and prompt compensation (cash), while the World Bank ESS5 requires 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 Ugandan legislation also does not provide for restoration of livelihoods, resettlement assistance and compensation at replacement value. • Ugandan laws do not make provisions for avoidance or minimizing of involuntary resettlement but instead provide for compulsory acquisition of land in public interest. • The legal right to resettlement is applicable to only those with propriety interest in the affected land. Entitlement for payment of compensation is essentially based on the right of ownership or legal user/occupancy rights. • In Uganda law those without formal legal rights or claims to

		such lands (e.g. tenants) are not entitled to be resettled or compensated.
ESS-6 Biodiversity Conservation and Sustainable- Management of Living Natural Resources	• The Constitution 1995 as amended. • The National Environment Act No.5 of 2019; The National Forestry and Tree Planting Act, 2003; • The Uganda Wildlife Act 2019; • The Land Act Cap 227; • The Fish Act Cap 197; • The Plant Protection Act Cap 31.	There are general gaps which include lack of Regulations to implement the National Forestry and Tree Planting Act and the Wildlife Act.
ESS-8 Cultural Heritage	The Constitution1995 as amended The National Environment Act, 2019 The Historical Monuments Act, Cap 46 The Institution of Traditional or Cultural Leaders Act, 2011	• The legal framework is limited in scope; for example, it does not cover certain aspects such as the intangible heritage; • There is no strong institution to regulate and manage heritage resources; • The sites and monuments are not adequately maintained, documented and in addition, some of the antiquities are not collected; • There is limited enforcement of the legal framework related to Cultural Heritage in Uganda because most developers and government officials do not understand the importance of conserving cultural heritage.
The current Historical Monuments Act is being reviewed to provide for an efficient law for the protection of the cultural resources of the country. The new law shall be inclusive of all aspects of culture, the tangible, intangible heritage of the country. The revised Environmental and Social Impact Assessment Regulations provide that risk assessment should include risks to cultural heritage.		

ESS-10 Stakeholder Engagement and Information Disclosure	NEA, 2019 ESIA Regulations 2020	• ESIA Regulations only cater for consultation with "affected persons", meaning that "Interested Parties" are by implication excluded. Also, there is no definition of "participation" "public" or "stakeholders" in the Act or Regulations. ▪ The 1965 Land Acquisition Act does not explicitly require consultation. ▪ The mechanisms to achieve public participation are not always effective, are seldom planned or adequately budgeted for, there is insufficient access to information and contact with project staff at the local level, and there are opportunities for the spread of misinformation and manipulation, fuelling unwarranted fears or frustrations due to unmet expectations that in turn can fan local opposition to a project[6]. ▪

General Recommendations: Addressing Key Gaps

In the short term, the following project-by-project arrangements are recommended:

- Generally, in cases where gaps are found between the WB ESF and the Government of Uganda Environmental requirements, the World Bank Environmental and Social Standards shall take precedence especially on matters which are not explicitly provided in the National Legislation requirements.
- For each substantial risk sub-project, the ToRs for the ESIA/ESMP need to be very specific about the process to be followed (including meaningful stakeholder consultation) and the expected contents of the ESIA/ESMP, reviewed and approved by the MAAIF PIU and the World Bank.
- Where applicable, sub-projects ESMPs must be included as a key component of bidding documents and contracts. They must be specific about roles and responsibilities for implementing the ESMP, performance indicators, triggers for remedial actions and reporting arrangements.

[6] Uganda Social Risk Management (SRM) Technical Paper (2019).

- Develop mechanisms to improve institutional coordination (such as joint assessments monitoring) to ensure post ESIA compliance and effectiveness monitoring and supervision; and provision of extension services by the respective districts and sub-counties, including providing guidance on implementation of sub-projects mitigation measures.

3 PROJECT BASELINE DESCRIPTION

3.1 PROJECT BENEFICIARY DISTRICTS

The project will be implemented in 69 districts and will directly benefit about 2,850,000 individuals. Given that project intervention areas will also cover refugee hosting districts, about 225,000 refugees are expected to directly benefit from project activities bringing the total number of direct beneficiaries to about 2.9 million. The direct beneficiaries of the project are the users of land and its resources including farmers, fish farmers, pastoralists, and forest users, refugees and their host communities defined by their agro-ecologies, farming systems, socio-economic factors, geopolitics, and land tenure. They include: (i)North-Eastern Dry Lands (Karamoja); (ii) North-Eastern Savannah Grasslands (East Acholi and Northern Lango); (iii) Kyoga Plains (SE Lango, Teso, Bukedi and northern Busoga); (iv) Western highlands, southern Highlands, Southern drylands, lake Albert crescent and (v) Eastern (Elgon) Highlands (Bugisu and Sebei) as shown on Figure 4. These sub-regions and agro-ecological zones are targeted because of increasing and high levels of poverty, and land and natural resource degradation; as well as low value production. The project will target individuals (smallholder and largescale farmers), farmer groups, cooperatives, and self-help groups. The project will also target the poor and vulnerable households as well as marginalized groups youth, women, and the elderly. Priority and attention shall be given to youth engagement and at least 40 percent of the direct beneficiaries are expected to be women. The indirect beneficiaries are the household members of the project participants and the users of the rehabilitated lands and sustainably managed natural resources that have not benefited directly from the project but benefitting directly from project activities. It is expected that an additional 1,500,000 individuals will indirectly benefit from project activities.

The following Sections document baseline environmental and social settings of the Uganda and the project regions as follows: (i) Karamoja region (North-Eastern); (ii) Elgon (Bugisu and Sebei) and Teso region (Mid-Eastern); (iii) Lango & Acholi Region (Mid-Northern); the Busoga & Bukedi Regions (East Central)and (v) Western highlands, southern Highlands, Southern drylands, lake Albert crescent.

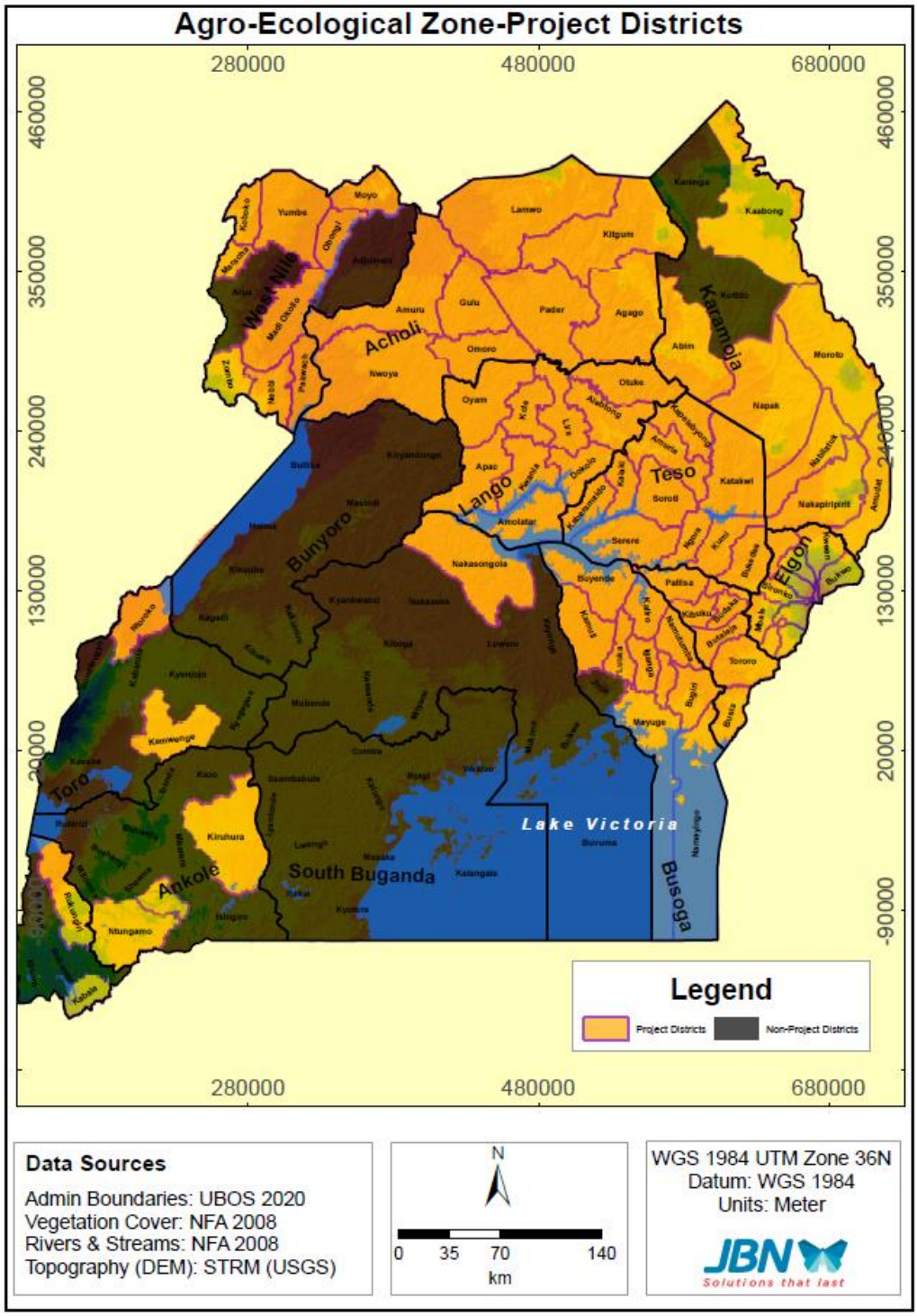

Figure 3-1: Sub-Regions where the Project will be implemented*(Source: JBN GIS **Unit** 2022)*

3.2 KEY ENVIRONMENTAL AND SOCIAL CHARACTERISTICS IN THE PROJECT SUB-REGIONS

3.2.1 KARAMOJA SUB-REGION

The planned project will be implemented in the Karamoja sub-region districts of Kaabong, Moroto, Nabilatuk, Nakapiripirit, Amudat, Abim and Napaka. Thematic baseline data for this sub-region is summarized as follows:

3.2.1.1 LOCATION OF KARAMOJA SUB-REGION

The Karamoja sub-region covers 27,511 km^2 and is located in the northeast of Uganda between 33^o and 35^o E and 1^o and 4^o N. The sub-region is made up of seven districts, namely: Abim, Amudat, Kaabong, Kotido, Moroto, Nakapiripirit and Napak districts (**Error! Reference source not found.**). The population of Karamoja has been growing from the 171,945 people that were recorded during the 1959 census and close to 988,429 people according to the 2014 census[17]. The 2014 population of close to a million people corresponds to a population density of 36 people per km^2

3.2.1.2 TOPOGRAPHY

Karamoja sub-region region can be split into three landscape predominant zones, namely; the northern and eastern borders of Karamoja which are mountainous and evolving to hilly landscape (mainly Kaabong and Moroto) and in the south of Napak and Nakapiripirit districts. In the northern part of the region, spontaneous peaks are punctuating the regional relief and orienting surface water flow, such as the inselbergs or volcanic intrusions (i.e. Napak peak or Mt. Moroto). The wetlands area assumed a plug effect for the whole upstream water flowing to L. Bisina.

3.2.1.3 SOILS

Karamoja region lies within a particular ground, which can potentially be linked to the particular local geology. Indeed, almost 50% of the region evolves within ferruginous tropical soils and vertisols, which are a result of acid gneisses, amphiboles or granulites rocks weathering. A quite clear evolution should also be observable according to altimetry and stream flow location. High reliefs present high lessived ferruginous tropical soil as well as lithosol as Karamoja plain presents a predominance of vertisols.

3.2.1.4 CLIMATE

The weather in Karamoja is generally hot and dry with average annual temperature is 21.5^{o}C; February and March are the hottest and July- August are the coolest months. Rainfall is unimodal with an annual average rainfall of 400mm in the east and 1,000mm in the west. Analysis of 30 years of satellite imagery reveals an average length of the growing season 120-180 days, which is sufficient for dryland crops.

3.2.1.5 LAND USES/VEGETATION COVER

The typical Karamoja landscape is characterized by semi-arid savannah with seasonal grasses, thorny plants, occasional small trees and rocks out-crop mountains. Common perennial grass species include: *Themeda traindra, Pannicum* spp., *Setaria* spp which were common at the margins of seasonally flooded

[7] Uganda National Bureau of Statistics-UBOS, 2014. Uganda-Demographic and Health Survey 2014; http://www.ubos.org/unda/index.php/catalog/26/sampling. Uganda National Bureau of Statistics-UBOS, 2014. National Population and Housing Census 2014 Provisional Results. UBOS, Kampala.

areas. The areas are further overgrazed and engulfed in *Acaccia hockii* which is characteristic of long-term seasonal fires. Browse species identified include Gum Arabica trees (*Acacia seyal, Acaccia senegal*, *Accacia sieberiana*, *Accacia gerrardii* and *Accacia nilotica* trees). Other common equally trees include *Balanites aegyptica*, *Calotropis procera*, *Maerua crassifolia*, *Salvadora persica* amongst other species.

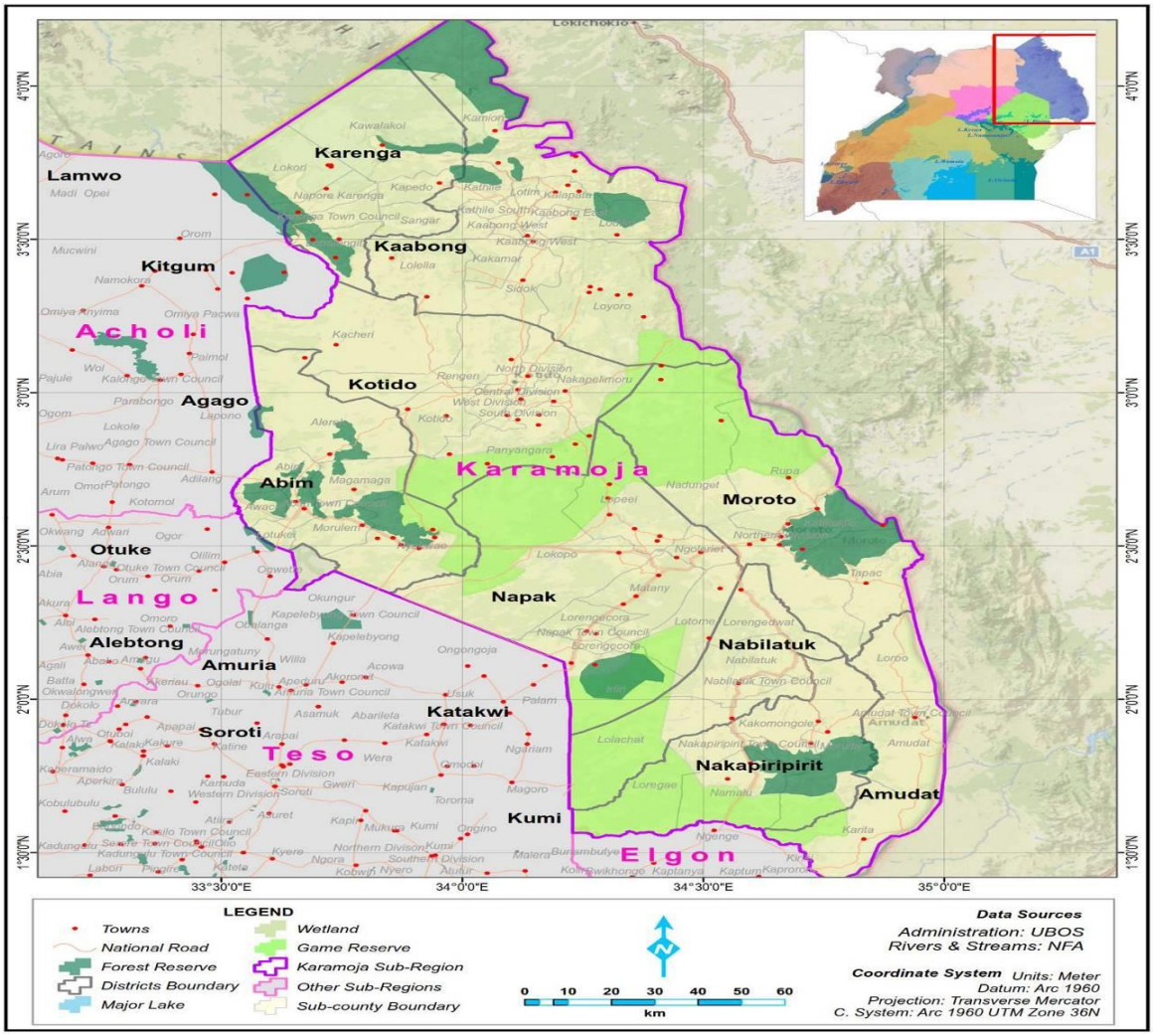

Figure 3-2: Karamoja Sub-Region (Source: JBN GIS Unit 2020)

3.2.1.6 PROTECTED AREAS IN KARAMOJA SUB-REGION

At the turn of the nineteenth century, livestock cohabited with wildlife in Karamoja. Large herds of buffalo lived in Dodoth, eland and zebras spread across the plains, and giraffes were common near Kadam. Topi and hartebeests were present in large numbers in Jie and Bokora. During the wet season, herds of elephants crossed the region north–south following the ripening of *Borassus* spp fruits, returning

to the hills around Kidepo in the dry season. This richness made Karamoja one of East Africa's prime hunting areas during the 1920s and 1930s[8].

However, by 1950, the wildlife population was in decline, which led to the conversion of most of the pastoral land of Karamoja to national parks and game reserves. Records available from the UWA show that, in 1962, the Ugandan Government established Kidepo National Park, covering 1,436 km^2. In 1963, three 'controlled hunting areas' were also established: Napak (196 km^2), North Karamoja (10,820 km^2) and South Karamoja (7,882 km^2). These were followed in 1964 by three game reserves: Matheniko (1,573 km^2), Bokora Corridor (2,145 km^2) and Pian-Upe (2,152 km^2). By 1965, 94.6% of Karamoja's total land area of 27,700 km2 was designated for wildlife conservation. Between 1972 and the early 1990s, protected conservation areas were extensively encroached upon and settled due to government neglect and its inability to police large tracts of land (Margaret A. Rugadya and Herbert Kamusiime, 2013).

3.2.1.7 POPULATION

The population of Karamoja sub-region can be summarized as in **Error! Reference source not found.**:

Table 3-1: Population of Karamoja Districts

District	Population Census 2002	Population Projection 2012	Population Projection 2014
Nakapiripiti	90,922	161,600	169,691
Abim	67,171	103,306	109,039
Kotido	122,541	233,300	178,909
Moroto	77,243	136,000	104,539
Kaabong	202,758	395,200	169,274
Napak	112,697	197,700	145,219
Amudat	63,572	113,700	111,758

(Source: UBOS 2014)

Karamoja is subdivided into three livelihood zones (**Error! Reference source not found.**) i.e. (i) the sub-humid wet-agricultural zone, (ii) the semi-arid agro-pastoral zone, and (iii) the arid- pastoral zone. Each of these livelihood zones has defining attributes. The wet agricultural zone runs down the western part of the sub-region and receives the highest rainfall total in the region on average 800-1200mm per annum. The agro-pastoral zone represents the crop-livestock mixed farming system and runs through much of central to northern Karamoja with annual rainfall averaged at 500-800mm, which is often poorly distributed. The arid-pastoral zone occurs in the eastern part of the sub-region, covering parts of Kotido, eastern Moroto and Amudat. This zone is characterized by variable, poorly distributed and low rainfall not exceeding 700 mm per annum. Unlike most of the rest of the country, which has two rainy seasons and two planting seasons, Karamoja has only one rainy season and one planting season[9]. Karamoja is also characterized by high spatial temporal variability in rainfall with a lack of a smooth transition from one extreme event to the other.

[8] Omoding, J. 2010. *Status of Protected Areas in Uganda*. Uganda Wildlife Authority, Kampala.

[9] Office of the Prime Minister-OPM 2009) Karamoja Action Plan for Food Security (2009–2014). Office of the Prime Minister, Kampala. http://opm.go.ug/assets/media/resources/17/Karamoja_Action_Plan_for_Food_Security_(200 9-2014).pdf

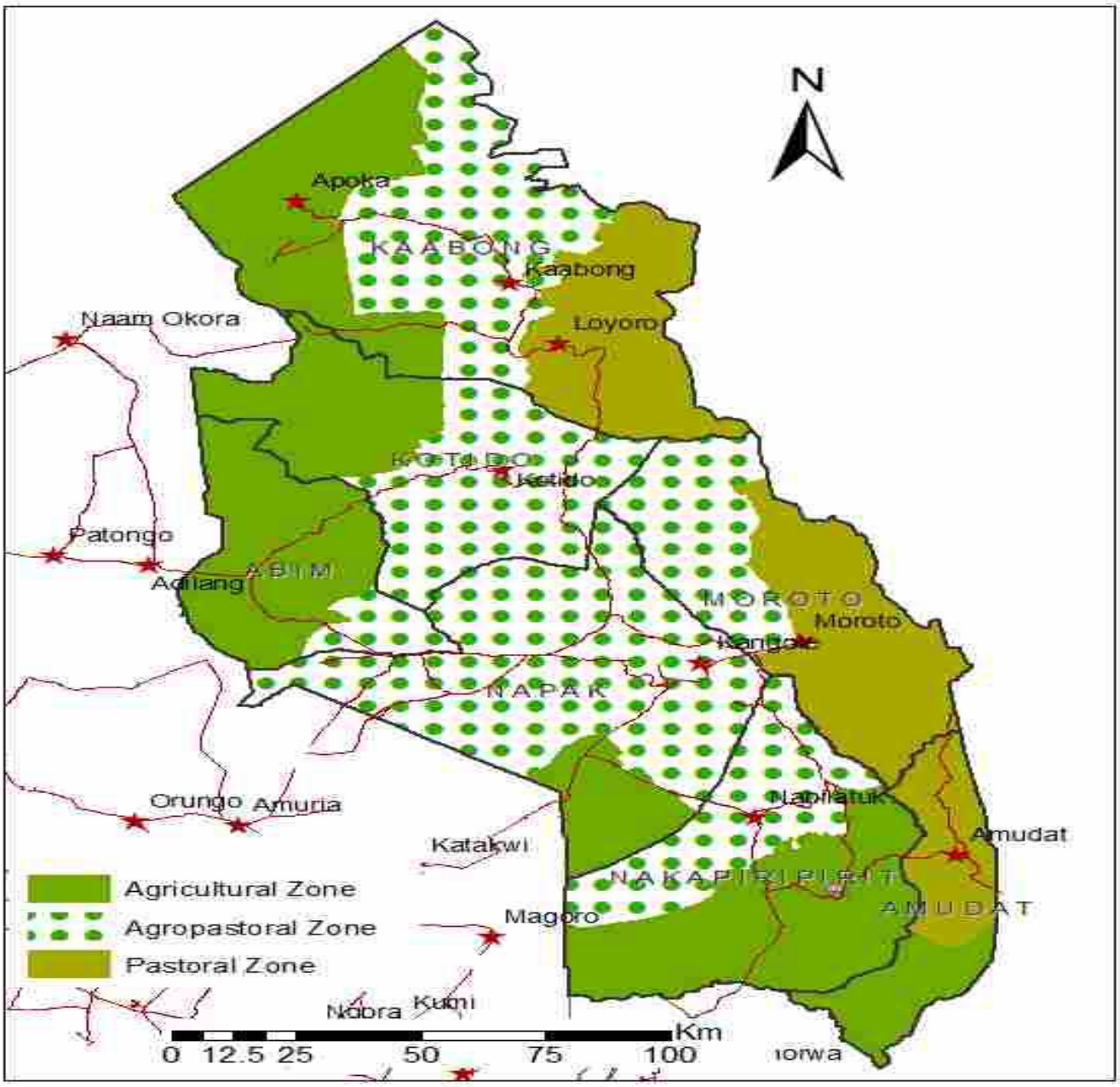

Figure 3-3: Livelihoods zone map of Karamoja

3.2.1.8 LAND TENURE

Land tenure system is multiple i.e. individual, institutions, prisons, leased/titled, free hold/customary owned–Land for settlements and gardens is individually owned by family's/grazing areas defined by individual–fallow land primary access rites/wide range lands which have clans with primary users, secondary and tertiary users' rights e.g. Turkana and Toposa. The danger of rangelands type of land use is that no clear ownership exists; everyone uses it without restrictions/communal use. At present, customary tenure has evolved into individualized and communal sub-tenures, each with distinct characters and resource rights embedded therein for the individuals, households and the community at large.

3.2.1.9 LIVESTOCK

Livestock rearing of sheep, goats and cattle has a long history in the Karamoja region, particularly in the pastoral and agropastoral livelihood zones. Many Karamojong households obtain a proportion of their annual income from livestock (in 2014, 40% owned cattle, 49% owned sheep and 50% owned poultry). Traditionally, pastoralists lived in fenced hamlets called manyattas and, as a traditional adaptive response, travelled during the dry season to find water and grass to stock mobile enclosed cattle camps called kraals. However, land use and land cover change have transformed available forage resources, particularly in the grasslands. In addition, the decades of civil unrest, combined with new, more sedentary pastoralist practices imposed as part of the disarmament process that limit mobility by replacing the traditional kraal system with concentrated corrals next to Ugandan army camps, present substantial challenges to pastoralist livelihoods. Limiting mobility and concentrating animal shelters has led to widespread overgrazing around camps and exacerbated tensions regarding use of limited water resources. These arrangements are not well-received by the Karamojong. All of these issues combined reduce the quality of herds, render livestock more sensitive to heat and water stress, and threaten their usefulness in helping families cope with shocks.

3.2.1.10 CROP PRODUCTION

Crop production in Karamoja is strictly rainfed, and reliant on two principal crops: sorghum and maize. Other crops grown include beans, groundnuts, cassava and sweet potatoes. The majority of farming is of a subsistence nature, although the western region also grows vegetables for markets (e.g., cash crops). Soil fertility in most of Karamoja is poor. South Karamoja's soil types have very limited water retention capacity, cracking during the dry season and becoming waterlogged during the wet season. Soils are highly compacted in general, often forming a dense mass called hardpan. With the exception of less compacted and more nutrient-rich soils along dry river courses, most of the soils in the region are of low fertility. These poor-quality soils, which produce low yields at the best of times, make agricultural production especially vulnerable to temperature increases and drought, conditions likely to be exacerbated by climate change. Cropping cycles are defined by the onset of the rains in April.

3.2.1.11 GENDER RELATIONS

Karamoja, for example, displays only moderate gender-based discrimination relative to the rest of the country. Traditional attitudes towards women are highly patriarchal but with an interesting degree of autonomy for women in certain sectors. Karamoja ranks third out of ten sub-regions for women's civil rights, with some of the highest levels of equitable access to justice in the country. Karamoja is also the worst performing sub-region in Uganda in terms of discriminatory social institutions within the family. The level of gender-based violence in Karamoja is extremely high. Some analysts see a link between limited opportunities for male livelihoods and women growing economic role in the family, leading to an increase in alcoholism and domestic violence. One in four women in Karamoja has experienced intimate partner violence within twelve months *(USAID, Thursday, November 21, 2019)*. Gender-based violence cases are rarely reported, so numbers are difficult to estimate and highly contested by government officials and health professionals.

Furthermore, women in Karamoja actually enjoy some of the best access to economic resources in the north. Karamoja is 8% less likely to restrict women's access to natural resources and economic opportunity than the country average, and attitudes towards discrimination are remarkably low. 17% of respondents believe women should be denied equal access to finance as men and should not be allowed to access and manage land equal to men. Livestock has traditionally been the greatest source of income and livelihood for the region; while women may enjoy access to land; this may not benefit them overall

without access to livestock, which are traditionally the property of men. While women's public roles may start to change traditional relationships, the cultural institutions that have survived for centuries are unlikely to change radically in the next five years.

3.2.1.12 POVERTY AND VULNERABILITY

Karamoja's collective Gross Domestic Product (GDP) accounts for less than 1% of Uganda's total GDP (USAID, 2017), implying that, the region's human capital is not adequately skilled to produce and drive economic growth despite the vast natural resource potential as a cattle corridor and minerals. The proportion of people trapped in chronic poverty in the region is at a high 24% which is twice higher than the national average of 10%[10]. It is noted that, all Karamoja districts have a very low GDP *per capita* compared to the national average. These differentials are against the human rights principles of equality and negatively impact on human capital development. In the long term, they will undermine Uganda's aspirations of becoming an upper middle-income Country by 2040 and the attainment of the SDGs. Investment in the regions young population in health, education and eliminating gender inequalities will go a long way in transforming the region' human capital capable into a productive force capable of driving economic growth thus breaking multi-generational poverty and help in resilience building against personal, social and natural threats.

In addition, food insecurity is also one of the major and ongoing challenge and a heavy reliance on the natural resource base renders livelihoods sensitive to climate dynamics. Climate variability and change undermine the already limited resources and development in Karamoja through recurring droughts, flash floods and prolonged dry spells. Other vulnerabilities that constrain development in Karamoja stem from historical dynamics affecting current governance, including: private ownership of firearms, cattle raiding, severe environmental degradation, poor infrastructure and limited access to basic education and health services, which were adversely affected by Uganda's civil war.

The fragility of the environment, remoteness, deprivation, low education levels, low-capacity levels, potential for conflict and poor policy have all been challenges for the region. The majority of the population in Karamoja subsist through agro-pastoral and pastoral livelihoods. The region suffers from cyclical droughts, which occur every 2-3 years. Chronic food shortages and malnutrition are common phenomena in the sub-region, which is particularly impacted by climate change. Evidence is clear that households, which do not own livestock, are particularly vulnerable to food insecurity.

3.2.1.13 SAFE WATER COVERAGE

In Karamoja, water sources are diversified and include ponds, boreholes, rivers, valley tanks, dams, wetlands, swamps. Water coverage in Karamojong still remains low. Dry rivers are a major challenge for both crop and livestock development in the Sub region. The water and sanitation services in Karamoja are lagging behind the national average, although the coverage continues to improve. Water coverage ranges from 26.4% in Kaabong, 45% in Kotido, 74% in Abim, 68.9% in Moroto and 56% in Nakapiripirit, as compared to 65% in 2009 nationally (Figure 3-5). The household latrine coverage is less than 10% on

[10] UNFPA Leaving no one behind in Karamoja: Population Matters Issues Brief No. 07 of August 2018.

average, compared to the national average of over 68% in 2009[11]. The low functionality of the Water and Sanitation Committees and water sources farther reduces the effective access to services.

From a WASH perspective, the integrated disarmament and development report for the period 2018–2020 shows that 73% of the region's population is located more than 30 minutes from a water source. Lack of access to safe water contributes to malnutrition among all groups, as does a lack of basic sanitation practices (e.g., hand washing), especially among young children. All of these issues are compounded by limited access to health services in the region. Use of improved sanitation facilities varies, with the highest rates (41%) in northern Karamoja and lower rates (11%) in the south, with the worst access rates in Moroto, Nakapiripirit and Napak (figure 6). Water resources are likely to be increasingly strained in Karamoja's future climate. While it is projected that precipitation may increase, warmer temperatures will accelerate evaporation, reducing the benefits of increased rainfall.

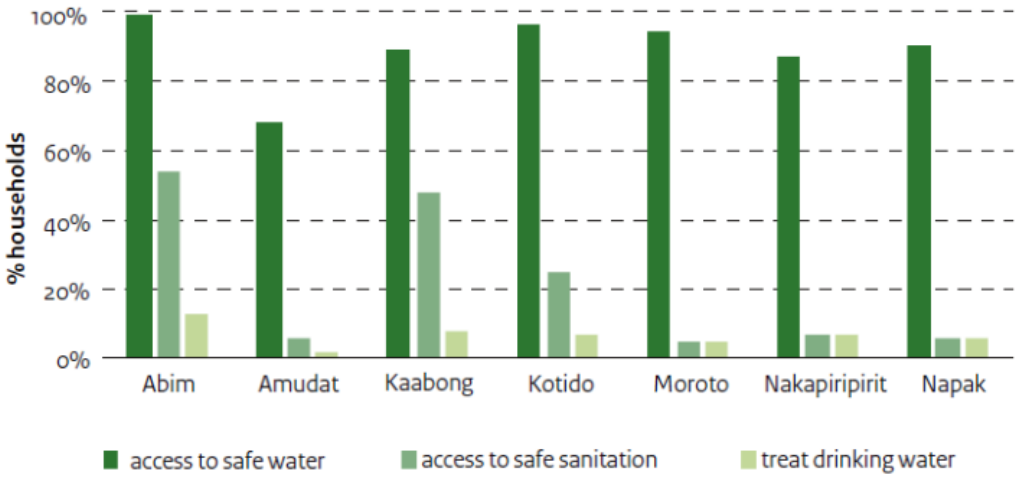

Figure 3-4: Access to water and sanitation by district[12]

3.2.1.14 VULNERABLE AND MARGINALIZED IK PEOPLE IN KARAMOJA SUB-REGION

The Ik community is a small minority ethnic group (Indigenous People) in the Morungole Highlands, Kamion Sub County in Kaabong District in Karamoja Sub region in the parishes of Kamion, Timu and Lokwakaramoe near the border with Kenya, along the escarpment between Timu forest in the South and Kidepo National Park on Uganda's northern frontier with Sudan (**Error! Reference source not found.**). Kamion Sub-County is located approximately 20kms from Kaabong District headquarters and covers an area of approximately 74km^2. The Ik are divided into 10 clans (Jigeta, Komokua, Telek, Ngidoza, Ilengik, Kadunkuny, Ngibongorena, Uzet, Nyorobat and Ngibonga). According to the Uganda Bureau of Statistics 2014, the Ik population is estimated at 6,225) people with a fertility rate of about 4%."

The Ik in the project area are neighboured by the Turkana (living in western Kenya) to the east, Dodoth to the west, the Toposa (living in southern Sudan) to the north and the Napore to the South. The Ik live in

[11] ESMF for NUSAF 3 OPM-GoU 2016

[12] *USAID 2017: Climate Risk Screening for Food Security in Karamoja Region, Uganda.*

several small villages after having been displaced when their land was converted into part of the Kidepo National Park. Their rituals and traditions are centred in the Timu forest, which is steadily receding.

The Ik exist in a precarious situation on the top of the escarpments and whilst their physical isolation in the mountains helps to protect them from violence at the hands of raiding warriors, it serves to marginalize them from government services. Unlike the rest of the tribes in Karamoja, the Ik no longer keep livestock since it is a source of further insecurity from raiders. Being subsistence farmers without cattle and having played off the Dodoth (a Karamojong sub-group) against the Turkana (in Kenya) for a long time, the Ik were rejected by most of their agro-pastoral Karamojong neighbors and were left to starve rather than be allowed to join nearby villages. This resulted in the deaths of some Ik, and others having to leave the area to become low-wage earners in nearby towns. The Ik (meaning head/first to arrive) acquired the name 'Teuso' (meaning poor people, dogs, or those without cattle or guns) from their neighbours after they were evicted from Kidepo. They are marginalized because they practice a culture different from most Karamojong, even their language is different. For example, while the Karamojong marry using cows, they marry with gourds, melons. They still use spears, arrows, etc and are predominantly agriculturalists. While Karamojong boys can marry Ik girls, Ik boys are not allowed to marry Karamojong girls. Due to periodic drought, the Ik often face famine. The vital relief aid that has targeted the region has often not reached them.

It is also noted that the Climate Smart Agricultural project will be implemented in areas where the *Benets* in Mt. Elgon slopes, the *Tepeth* in the Karamoja region who meet the criteria for ESS7._The whole Karamoja region would qualify to be vulnerable and marginalized communities. The project will therefore ensure special measures that conform to the provisions of ESS7 and the World Bank Directive "Addressing Risks and Impacts on Disadvantaged or Vulnerable Individuals or Groups," August 4, 2016.[13] to ensure the effective, inclusive and meaningful participation of the Ik and other communities that meet the criteria of ESS7, throughout project implementation in relation to ensuring that adverse impacts of the project do not fall disproportionately on them and that they are not disadvantaged in sharing any development benefits resulting from the project.

[13] Bank Directive EXC5.07-DIR.117

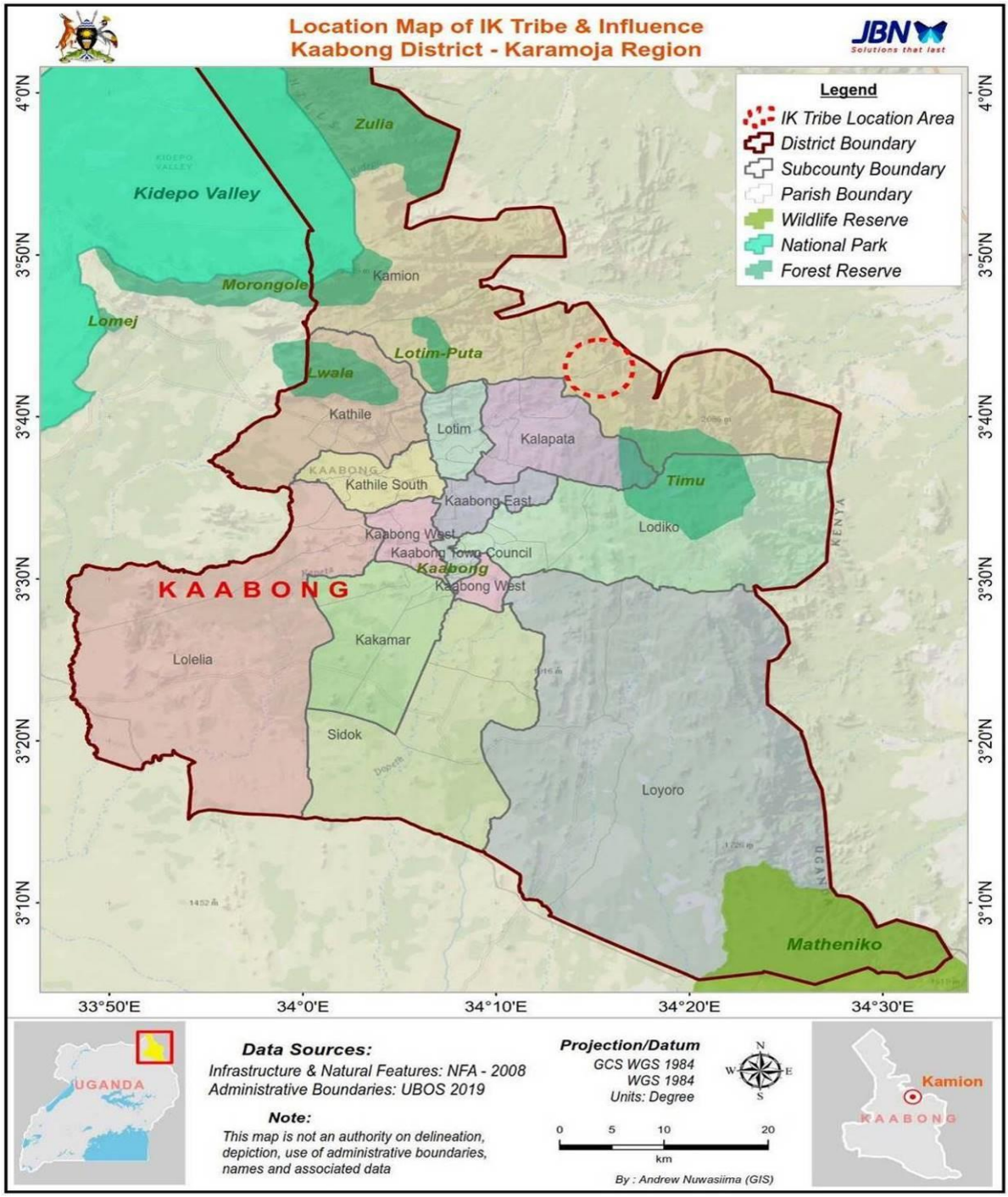

Figure 3-5: Location of Ik in Karamoja Sub-Region (Source: JBN GIS UNIT 2022).

3.2.1.14.1 THE IK PEOPLE DEMOGRAPHICS

According to (UBOS, 2014) in Kaabong District Local Government Planning Unit, The Ik population is to a tune of 6,225) in number and live on the edge of Karamoja–Turkana region along the Uganda– Kenya border. Despite the highest poverty levels among the Karimojong, deprivation among the IK is even worse. Their remote location in the mountainous parishes of Usaku/Morungole, Lokwakaramoe, Kamion and Timu in Kaabong district, which are difficult to access due to poor roads, leaves them lacking basic

services such as quality healthcare, education and other extension services such as agriculture extension etc.

3.2.1.14.2 CULTURAL HERITAGES AND NATURAL RESOURCES

The IK community had significant natural cultural sites that include among other; Timu and Morungole Forest reserves, Tultul Valley, Loloi River, Lopuwa River, Kandep River, Kanarukunet River and Kangasep River. Also, sacred cultural sites that include Lokitoi Cultural Heritage, Lopuwa and Kanakaret sacred place which the Ik go to worship their gods for rain and in times of crises. Despite of the natural resources availability, the Ik cannot enjoy full rights over these natural resources as the gazetting of the Kidepo National Park in 1958 took large portion of their forest now under management of Uganda Wildlife Authority (UWA).

3.2.1.14.3 LAND TENURE AND OWNERSHIP IN THE IK COMMUNITY

Over 90% of the IK land is in the forest reserve and this was largely affected by the gazetting of Kidepo National Park and National Forest Authority Reserve -which meant the Ik losing a large portion of their land. The IK occupy areas of Kamion sub-county (Usaku- Morungole, Kamion and Timu parishes) in Kaabong district. The little land left outside the reserve is communally owned and any member of the IK clan is free to cultivate within this land with small size of gardens half to one acre. There are many restrictions by NFA to the community on usage of the reserve, with the only activities allowed being eco-tourism (Community Tourism and Apiary), Tree planting and small-scale agricultural activities.

3.2.1.14.4 DISCRIMINATION OF MINORITY GROUPS

Ethnicity is another source of discrimination. The Ik and the Tepeth are most marginalized ethnic groups in Karamoja. They are socially excluded because their language is not understood by the major groups, their cultural practices are different, and they are few in number. These minority groups are often poorer than the major groups. They are sometimes labeled and referred to as dogs or “Ngingokin.” The Ik are very few, they are marginalised in terms of social services. ‟ They are called “ngigiraboro” meaning they have nothing to do so they decorate calabashes. They are used to living in the hills. They are in the middle and are considered “double mouthed” victims of both Dodoth and Turkana. When the Turkana raids are unsuccessful, they blame and beat the Ik, saying they passed information to the Dodoth, and vice versa when Dodoth raids fail.

3.2.2 ELGON SUB-REGION

This is an Economic region deriving its name from the Mt. Elgon o n whose slopes the region is situated and is comprised of the Bugisu districts of Mbale, Sironko, Manafwa, Bududa and Bulambuli and the Sebei districts of Kapchorwa, Kween and Bukwo (Figure 3-6). The region is located in Eastern Uganda with Mbale the principal town located about 245km from Kampala. The region borders Kenya, which can be accessed through Suam border post in Bukwo district and Lwakhaka border post in Manafwa. It neighbors the Karamoja, Teso and Bukedi regions internally.

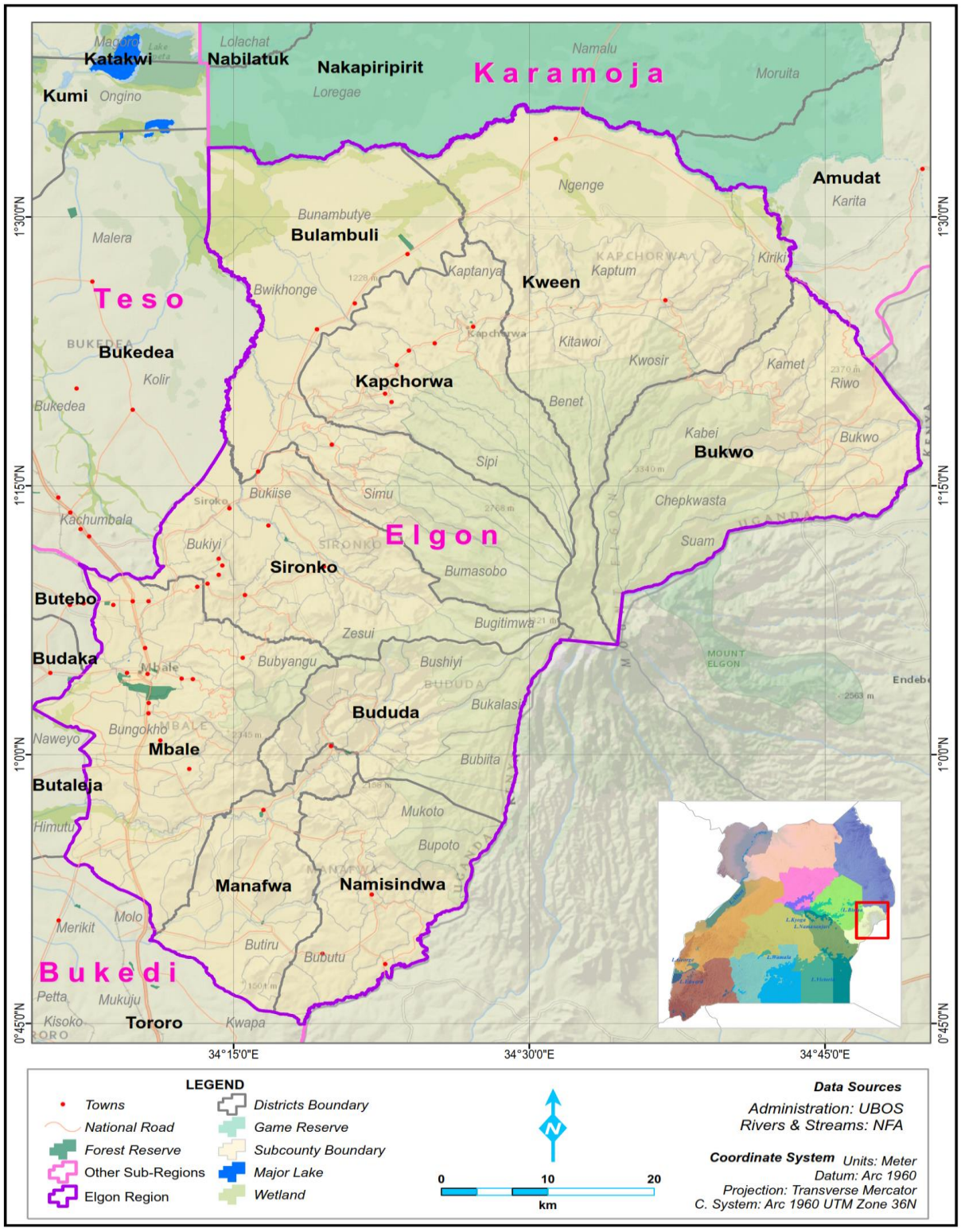

Figure 3-6: Bugisu Sub-Region (Source: JBN GIS Unit 2022).

3.2.2.1 GEOLOGY AND SOILS

The Pre-Cambrian rock system and the Cainozoic rock formations are the major formations underlying the Mbale region. The pre-Cambrian rock system is mainly granitic or high to medium metamorphosed

formations, consisting of undifferentiated gneisses and elements of partly granitic and metamorphosed formations. Cainozoic formations consist of Pleistocene to recent sediment, alluvium, black soils and moraines. The geomorphology of Bududa is greatly controlled by the volcanism and doming of the rocks. The main geology is fenitized basement rocks and in the central part known as Bukigai, a pre-Elgon alkaline volcanic structure, the Butiriku carbonatite Complex stands out.

3.2.2.2 VEGETATION

The Mbale region is heavily cultivated, with little to no remnants of natural vegetation in the lower and mid elevation areas. Natural vegetation remains in the higher elevation areas, most of which fall within the Mt. Elgon National Park. In the higher altitudes, the natural vegetation changes from montane, to grassland, bamboo then heath and moorland in that order. The supra-tropical forests up the mountain is dominated by with Camphor, *Aningeria adolfi-friederici*, *Podocarpus latifolius*, *Olea hochestetteri* and *Prunus africana* (Hamilton[14]MoWE 2018[15]). Mixed bamboo occurs at about 2,500-3,000m, which turns into open woodland dominated by *Hagenia abyssinica* and African rosewood, the heath zone 3,000-3,500m characterized by giant heath with grassy swards of tussock grass. The Afro-alpine region stretches from 3,500m to 4,321m asl, dominated by *Senecio elgonensis*.

3.2.2.3 SOCIO-ECONOMIC CHARACTERISTICS

The Mbale region has about 590 persons per square km, making it one of the most densely populated parts of Uganda. Mbale town is the major urban area with a population of more than 150,000. There are numerous other smaller towns, including Bududa, Manafwa that are now growing since each now hosts the headquarters of their respective districts. The majority of the people of Mbale region are ethnic Bagisu, who have inhabited the western slopes of Mt. Elgon for centuries. Most people are engaged in agriculture, which is the main economic activity employing more than 80% of the population. The major crops grown at high altitudes include bananas, arabica coffee and Irish potatoes, while at lower elevations the dominant crops are maize, millet, cassava, beans and sweet potatoes, cabbage and tomatoes. The Mbale region as well as other parts of the slopes of Mt. Elgon is the major Arabica coffee producing areas in Uganda.

3.2.2.4 CLIMATE

The region has a unique climate pattern, which favors special crops such as wheat, barley and other cereals like maize, and sorghum used in commercial beer production. This plus the high tourism potential derived from the Mountain and its associated ecosystems make the Elgon region a high economic potential region. Mean maximum temperature over the last decade (2002 to 2011) for Buginyanya lie between 26.9°C in February and 22.2°C in July. Maximum temperatures have ranged between 30.2°C and 17.2°C. Mean minimum temperature ranged between 13.7°C and 12.9°C. There has been an increase of between 0.4 and 1.2°C in mean monthly temperatures in the Mbale region during the 2001-2011 period

[14] Allan Hamilton 1991, A Field Guide Ugandan Forest Trees. Makerere University-Kampala Uganda

[15] MoWE 2018: Revised Analytical Report on Building the resilience of the rural Communities through improved conservation and protection of catchment areas and improving water supply, storage and utilization

over the 1961-1990 normal. However, whilst there are indications that May, June and July have received up to a 13-15% increase in rainfall in the last decade at Buginyanya station, there were often decreases in the previous decade relative to the 1961-1990 baseline period.

3.2.2.5 AGRICULTURE

The coffee-banana system is predominant in Elgon region. There is barley, maize, wheat and Irish potatoes especially in the Sebei districts. Livestock activities such as cattle rearing, poultry keeping, apiary, and pig rearing are also common in the Sebei areas of Kapchorwa, Kween and Bukwo. Agriculture is the main economic activity in the Mbale region. Nearly 87% of all people in the region are employed in agriculture. Major crops grown include bananas, coffee, beans and maize. The crops are mainly grown in a banana coffee system. Coffee is mainly grown under Cordia macrophylla shade. Other coffee shade trees include *Albizia* species, *Grevellia*, *Eucalyptus grandis* woodlots are also found scattered over the landscape. Cultivation on steep slopes increases the risk of erosion. This also results into siltation of rivers. Terraces that are one of the techniques that make cultivation on slopes sustainable are a very rare sight in the Mbale region. Currently, coffee yields range from 1,556 to 1,776 kg/ha. This average yield is below the production potential of 2,000kg/ha for Arabica coffee under good management practices.

3.2.2.6 THE BENET/ NDOROBO IN KWEEN DISTRICT

The Benet people are vulnerable and marginalized group, who are part of the larger tribe called the Sabiny. They are a pastoralist forest dwelling community who traditionally resided in the grassland and moorland areas of Mt Elgon forest. There are mainly two groups namely; the lowland Sabiny people and the forest-dwelling Ndorobo people. Ndorobo are the indigenous Benets, the first occupants of Mt. Elgon. The Ndorobo have four social groupings namely; The Benet, the Piswa, the Kwoti, and the Yatui clans. The Benet community is a historical term, which was used to describe the contested area of Mount Elgon where Ndorobo and settlers currently reside. The terms 'Benet' and 'Benet community' were revitalized to describe the people in that area (both settlers and Ndorobo) for the purposes of pursing the legal strategy.

Although the 1983 resettlement scheme was meant to remove the Ndorobo from the Mt. Elgon Forest Reserve, it was found expedient to resettle the lowland Sabiny people, who had been rendered landless by the fatal cattle rustling raids of the Karamajong and the Kenyan Pokots, together with the Ndorobo. During the 1983 resettlement exercise, the two groups were resettled together in the present-day Benet Resettlement Area and thereby adopting the generic term Benet people. Their population is estimated at 20,000. The Benet communities were allowed to remain in the moorlands of Mt. Elgon Forest Reserve without residence documentation on an understanding that this was their home. The assumption was that the Benet community would remain a small community, practicing pastoralism, hunting and fruit and herbs collecting for their livelihood. Later on their population and number of livestock grew significantly, thus interfering with forest regeneration. In addition to other activities they took up subsistence agriculture, growing Irish potatoes. In so doing, they damaged the fragile ecosystem within the moorland, bringing sizeable chunks of the montane forest under agriculture, thus encroaching. These activities became increasingly damaging and incompatible to the fragile ecosystem.

3.2.2.6.1 KEY LIVELIHOOD CHALLENGES FACING THE BENET/NDOROBO GROUP

In February 2008, the Uganda Wildlife Authority and the Uganda People's Defence Forces evicted the Benet/Ndorobo communities living in Mount Elgon National Park in East Uganda. It is reported that people's houses and crops were destroyed, cattle were confiscated and the people were left homeless.

They found shelter where they could: in caves and under trees. Despite a landmark victory against the government in 2005, the Benet people continue to suffer from the effects of their evictions from the Mt. Elgon National Park.

3.2.3 TESO SUB REGION

The sub-region under the project will be implemented in the districts of Kumi, Bukedea, Serere, Ngora, Katakwi, Soroti, Kapelebyong, Amuria, Kalaki, Kaberamaido and the interventions will focus on pond fish farming, cage fish farming, livestock (poultry, pigs, dairy, beef cattle), macadamia and citrus and mangoes. Teso sub-region is bordered in the north and east by the semi-arid region of Karamoja, to the west by Lango and to the south by Bukedi (**Error! Reference source not found.**). According to the 2014 National Population and Housing Census, 1.8 million people are living in Teso, 80% of whom are the Iteso who speak Ateso (Byaruhanga C., *et al.*, 2014).

3.2.3.1 CLIMATE

The region has bimodal rainfall regime, supporting two cropping seasons. The first and major cropping season normally starts in March and runs until mid to late June/July when the dry season sets in. The second and minor rains are often received between August and early December when second season harvests begin. For most of the location, there is no distinct lean period; however, districts close to Karamoja Region tend to experience nearly similar seasonal trends as their neighbours on the Karamoja side and are most impacted by any inordinate actions of their Karimojong neighbours (Byaruhanga C., *et al*., 2014).

3.2.3.2 VEGETATION

The vegetation in the sub-region can best be described as grassland savannah. The soils are mainly sandy loam with a variation from sandy to loamy soils depending on the terrain. The area is endowed with lakes, rivers and vast wetlands. The region is composed of one livelihood zone eastern-central low land, cassava, sorghum and groundnuts zone. The crops grown include cassava sweet potatoes, sorghum, finger millet, peas, groundnuts and rice. The Iteso ethnic groups are cultivators as well as cattle keepers from the old times. In addition to the traditional livelihood strategies, a number of off-farm activities have evolved including *boda-boda* cycling, black smiths, fishing, charcoal burning, local brew (*ajono*) trade, brick making, stone and sand quarrying among others.

3.2.3.3 LAND TENURE IN TESO REGION

In Teso region, the most common mode of land ownership is customary system, which is almost the same as customary law in other parts of northern Uganda. Under customary tenure in Teso, the clan elders have the responsibility for administering land, but this includes the right to say who can sell land and to whom. The family head manages the land on behalf of the family as the steward of the land. His rights to manage the land go together with the responsibility to look after the rights of others to use the land, and to make sure that the next generation will also be able to enjoy the land.

3.2.3.4 THE TESO FARMING SYSTEM

The staple foods are millet, maize and sorghum; other crops are oil seed crops (groundnuts, simsim and sunflower), sweet potatoes and maize (Figures 3-7 and 3-8). Mixed agriculture (crops and livestock) is practiced; cultivation by oxen is the main agricultural technology. Livestock are kept extensively in those areas, which are tsetse fly free. The use of crop residues is very common in the Teso System. The average farm size is about 3ha. Equally, the livestock industry is booming within the region with the beef

industry showing many opportunities[16]. The poultry value chain is also a nascent industry with promises of good returns if one tries out the breeding, feeding or even marketing nodes in that value chain.

Figure 3-7: Extension worker inspecting a sweet potatoes garden in Asuret, Soroti District

Figure 3-8: Family picking maize in Bugondo, Serere District

3.2.3.5 GENDER DIMENSION IN TESO SUB-REGION

Overall, the level of gender mainstreaming in development Projects is low despite the efforts made previously. Therefore, the participation of women in developmental process is low. The communities in the district are largely patriarchal in nature. In most parts in the sub-region, the place of women and men in terms of their roles in the community can be largely categorized into two; reproduction and production respectively. It is a practice that in more than 90% of the households and communities in the district, men hold sway in matters relating to control of resources and access to them. These resources mainly include productive assets like land, capital and finances. The males are by tradition the heads of households under the traditional clan systems.

[16] ICU 2015-2020: A strategy for Iteso Cultural Union

Figure 3-9:Teso Sub-region map (Source: JBN GIS Unit 2022).

3.2.4 LANGO SUB-REGION

The Lango sub-region is currently divided into 9 districts of Alebtong, Amolatar, Apac, Dokolo, Kole, Lira, Oyam, Otuke and Kwania Districts (**Error! Reference source not found.**). The region is situated within the annual cropping and cattle-farming systems that are primarily found in Northern Uganda.

3.2.4.1 TOPOGRAPHY

The sub-region has landscapes to the north is Lake Kyoga crossing diverse swamps associated with the Kyoga-Kwania system. For most parts in the sub-region, the landscape is extensively flat with on significant undulations. This spectacular topography of the region is a result of a combination of a complex geomorphological process associated with tectonism in the Albertine, volcanic eruption on the Elgon and inundation of the marginal flat areas of Lake Kyoga.

3.2.4.2 GEOLOGY

The sub-region is underlain by some of the oldest Precambrian basement complex rocks much of which have been modified by tectonic processes associated with formation of the rift valley. The evidently deeply weathered Precambrian crystalline rocks associated with the general geology of the region resulting from tectonic processes that operated on Precambrian orogenic-metallogenic belts of Africa underlie the project area. Material flows from the rifts were deposited on the underlying basement complex rocks.

3.2.4.3 SOILS

Soil types are basically laterites developed on very ancient deposit including lake deposits underlain by basement Complex gneisses. A number of catenas are represented in the project area. The basic geomorphic history is postulated as follows–laying down of sandy sediments over Basement Complex, with islands formed by protruding inselbergs, slow draining of the lake, eluviation and laterite formation, uplift and dissection of the plateau and deposition of new clay soils in the swamps.

3.2.4.4 CLIMATE

The Lango sub region lies within a climate belt characterized by a double maxima rainfall regime and relatively high temperatures throughout the year. The annual mean maximum temperature ranges between 25^0C and 31^0C, the hottest month being February while mean annual minimum temperature range from 18^0C-22^0C the coolest months being June and July. Two rainy seasons are recorded with the first long rains beginning in March, peaking in April/May and ceasing in June characterize the sub-region.

3.2.4.5 VEGETATION

The vegetation of a place is described based on species present, which are a function of prevailing environmental conditions. Vegetation is influenced by landform, soils, climate and a horde of anthropogenic factors such as agro-pastoral systems and other land uses. Approximately three quarters of all vegetation zones have been modified with the exception of a few permanent wetlands. Sections of the road have plantation forest reserves along the alignment though with an offset of over 60m from the alignment.

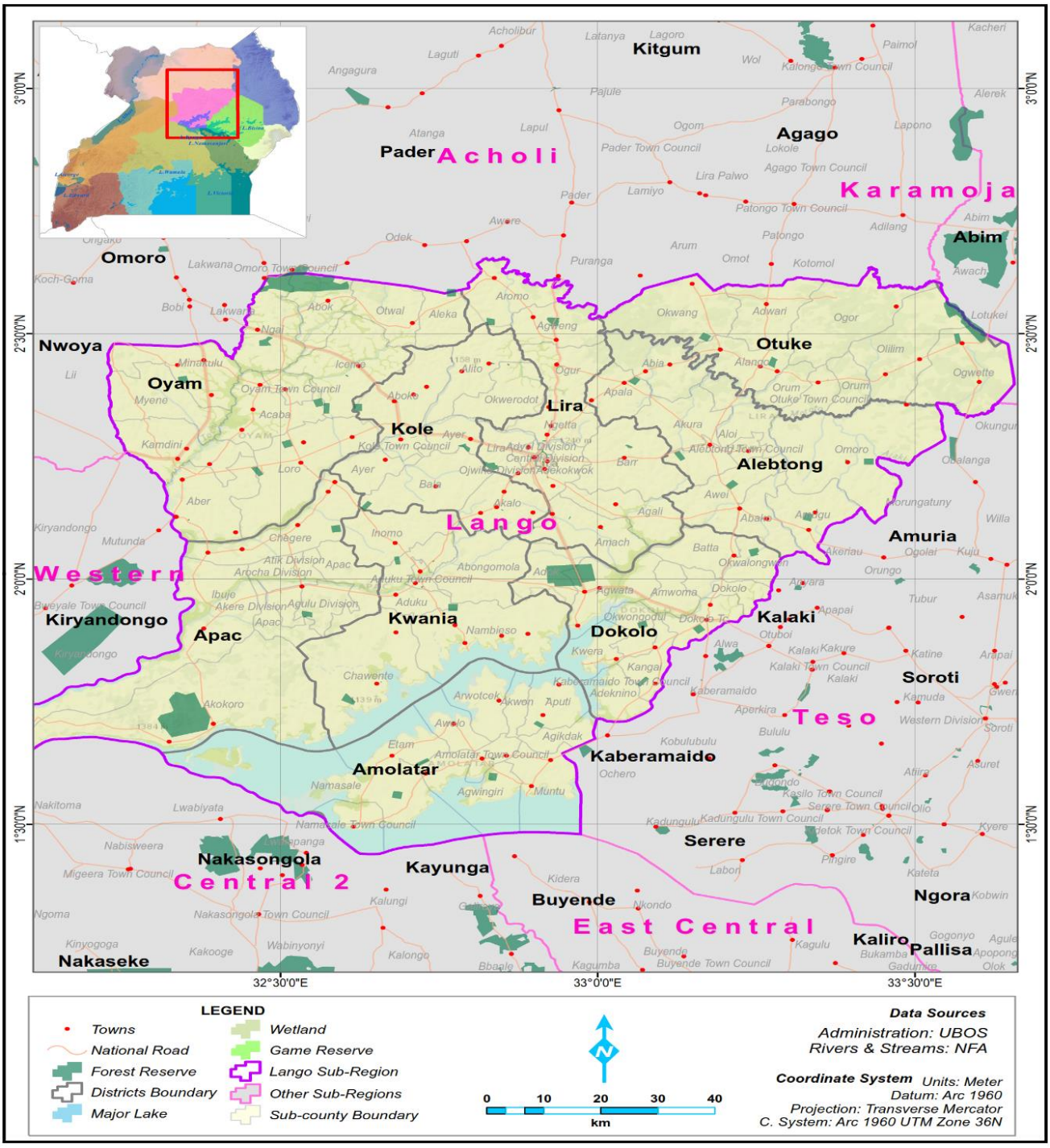

Figure 3-10: Lango Sub-Region (Source: JBN GIS Unit 2022).

3.2.4.6 AGRICULTURAL PRODUCTION

Agriculture is the major economic activity in the sub-region. The majority of farmers in the sub-region are small holders who grow mainly annual crops. The annuals include maize, sweet potatoes, beans, cassava and groundnuts. The livestock comprises goats, cows, sheep, and rabbits while poultry such as chicken, turkey, ducks are also reared. Subsistence and *quasi* commercial levels growing mainly sunflower, maize, simsim and cassava. Cotton is mainly grown in Uganda Prison Farm in Loro. There

are also efforts at commercializing sunflower growing to extract oils and there are some areas in the district, which are taking on commercial fruit farming of oranges, mangoes and other fruit trees.

3.2.4.7 HEALTH CARE

The coverage of health centers in the project area is good, and there is better and faster access to these health centers. The commonly used heath facilities for health care are health center III (36.5%), health center II (29.2%) and privately-run clinic/drug shop (23.7%). Therefore, distance to referral health units is important as there is a direct correlation between patient mortality and increasing travel time or distance to a health facility since it influences health outcomes especially in cases of health complications. In Uganda, every person is expected to have a health facility within a 5km radius as recommended by the ministry of health. The most common disease is malaria which accounts for 99.7% followed by Respiratory Tract Infections (RTI) (76.1%). Other diseases are related to STIs (7.7%), intestinal infections (7.4%), HIV/AIDS (6.5%) and Hepatitis B (2.5%). Currently, Lango sub-region has HIV/AIDS prevalence rate of 4% and 7% respectively[17].

3.2.4.8 SAFE WATER SOURCES

The water coverage in the sub-region stands at 70.6% with most households having access to communal boreholes, 13.7% public standpipes, 9.9% piped water in the house and (3.5%) protected springs[18].

3.2.4.9 EDUCATION SERVICES

Education is one of the most important factors to the development of a country as it is crucial in helping to achieve both an inclusive and equitable sustainable development goals. Available information indicates that, in Lango sub-region about 85.7% of the population ever attended school is attended school as opposed to those who said they had never attended school at all (14.3%)[19]. This scenario presents an opportunity for improved communication of development interventions in the areas where a good percentage of the population is able to at least read and write.

3.2.4.10 LAND OWNERSHIP

Land in particular is a major factor that characterizes a fusion of household and national 'asset politics[20]. In Lango sub-regions, land is passed from father to sons, but the customary tenure systems grant women significant land rights. Everyone born of the clan on inherited land, whether male or female, has the right to use land. Despite women having significant land rights under customary tenure arrangements. Formal laws that forbid discrimination against women, significant disparities between the rights of men and women arising from violation of customary law exist but have not helped much. The power of the clan authorities to enforce rules governing customary tenure have eroded over time, such that clan elders now often fail in their traditional duty to protect women and children[21]. This is largely

[17] Uganda Aids Commission: Uganda HIV/AIDS Country Progress Report for July 2016-June 2017

[18] MoWE Annual Sector Performance Report 2019/20-GoU

[19] Ministry of Education and Sports Annual Sector Review 2019/2020

[20] UBOS-Gender Issues in Uganda,2019

[21] Women and Customary Land Rights in Uganda,2011

occasioned by women's inability to protect their land rights when challenged by more powerful people, including their husband and family members.

3.2.4.11 GENDER BASED VIOLENCE

Gender-based violence (GBV) is an umbrella term for any harm that is perpetrated against an individual based on his or her biological sex, gender identity, and/or sexual orientation. Rooted in structural gender inequalities and power imbalances between women and men, GBV takes on many forms and can occur throughout the life cycle. The Lango sub-region recognize that promotion of gender equality and empowerment is in line with the millennium development goals and a key player in the development dynamics of the population. Regardless of several ground-breaking advances, particularly in the political and legal spheres, inequality remains a constant feature of social, economic, and political arenas. Because of this trend, it is important to mainstream GBV mitigation measures into development interventions to enhance protection of the women in particular.

3.2.5 ACHOLI SUB-REGION

The districts that comprise Acholi sub-region under the project include Amuru, Lamwo, Nwoya, Omoro, Kitgum, Pader, Gulu and Agago (**Error! Reference source not found.**).

3.2.5.1 TOPOGRAPHY

The relief of Gulu, Amuru, Nwoya and Kitgum Districts consists of complex low landscape with relatively uniform topography marked by few sharp contrasts in the altitude ranges between 1,000-1,200 meters above sea level. The relief of Amuru consists of complex low landscape with relatively uniform topography marked by few sharp contrasts like Kilak hills in the north-eastern part of the district (Kilak County). Generally, the altitude ranges between 1,000-1,200m above sea level.

3.2.5.2 GEOLOGY

The major rock types that form the geology of Amuru and Gulu districts are composed of remnants of low land surfaces and scarps related to rift or Aswa, sediments of western rift valley, zone of Tors and inselbergs areas of infill, remnants of upland and hot springs. In Lira district, the major geological formations are the basement complex (mainly undifferentiated acid gneiss) covering most of the district.

3.2.5.3 SOILS

According to Langlands (1974)[22] classifications, the soil of Gulu and Amuru districts consists of ferruginous soil with a high percentage of sandy soils and therefore susceptible to erosion. Due to its sandy nature, the soil has low water retention capacity and high rate of water infiltration. The soils are usually deep with little differentiation into clearly defined zones and possess fine granular structure, others moulded into large, weak coherent clods that are very porous.

3.2.5.4 CLIMATE

Langlands, B. W 1974: Soil productivity and land availability studies for Uganda**.** Occasional paper No. 54, Makerere University. Dept. of Geography, Kampala-Uganda.

The type of climate experienced in Gulu consists of dry and wet seasons. The average total rainfall received is 1,500 mm per annum with the monthly average rainfall varying between 14mm in January and 230mm in August. Normally the wet season extends from April to November with the highest peaks during May, August and October, while the dry season begins in November and extends up to March. The rainfall in the district is bimodal with one peak during April-May and the other in August-October. The average annual rainfall in the district varies between 1200-1600 mm decreasing northwards. The average minimum and maximum temperatures are 22.5^0C and 25.5^0C respectively[23].

3.2.5.5 BUSH BURNING

Bush burning in the northern Uganda is used as land management practice to clear land for cultivation. Hunters too also set fires to bushes in order to flush out their prey. Wildfires are used to control grazing fields in some cattle keeping communities however; these have turned out to be disasters. Bush burning destroys perennial vegetation and other vegetative matter, exposing the soil to water and wind erosion. The impacts of bush burning include losses to communities. The fires burn the grass the locals usually collect during the dry season to use for thatching houses during the rainy season. To curb such acts, some district local governments such as Gulu are in the process of passing bylaws to regulate illegal bush burning.

3.2.5.6 LAND TENURE AND LAND USE

Land tenure system in the regions is largely customary land tenure type with the exception of church missions, hospitals and schools a number of which hold Freehold land tenure titles. Inheritance of land is usually passed on to a male heir and negotiations affecting land acquisition is always geared to the male head of the household after the clan head has given the go ahead. The districts have spatial populations, which are unevenly distributed. Accessibility to socio-economic infrastructures has largely determined population distribution in the districts while natural resource endowments largely determined and greatly influenced the settlement pattern. It is worthwhile to mention that in the past two decades or so the population settlement pattern in the districts has had a departure from natural resource endowment potentials and existence of socio-economic activity determinants to security concerns. People predominantly live in grass-thatched houses.

3.2.5.7 KEY ECONOMIC ACTIVITIES

The Acholi are traditionally agro-pastoral communities. Most people (80% of households) report that crop production is their main economic activity, though most people depend on several complementary activities. Many aspire to return to the situation where livestock keeping was a significant secondary livelihood source. There is very little formal employment in rural areas. Apart from crop production, the most common sources of income include; casual labor, both agricultural and non-agricultural, petty trading, alcohol brewing especially for women and seasonal exploitation of natural resources, such as charcoal burning, collecting firewood, making bricks A few people, especially younger men, have motorcycles (*boda boda*) and work in bicycle repair, etc., though very few of households identify any such small business activities as a main income source. Participation in Cash for Work (CFW) is also mentioned by villagers as a livelihood source[24].

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[23] NEMA Uganda State of Environment Report 2018, Kampala-Uganda

[24] NUSAF 3 ESMF 2016

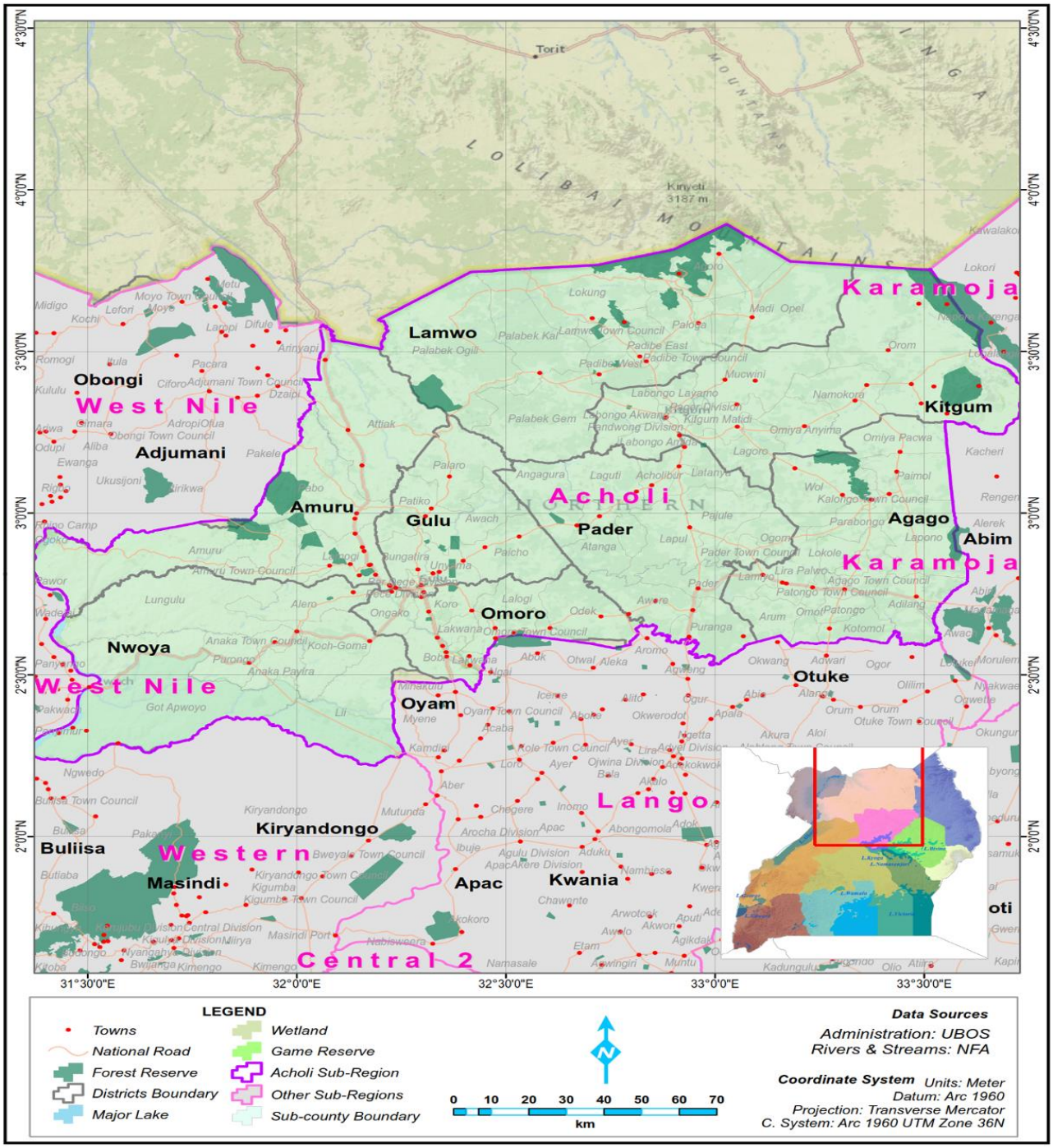


Figure 3-11: Acholi Sub-Region (Source: JBN GIS Unit 2022)

3.2.6 MID WESTERN SUB-REGION

3.2.6.1 LOCATION

The sub region lies in Midwestern part of Uganda and constituted by a number of districts namely; Kamwenge, Kabrole, Kitagwenda, Kyenjojo, Bunyangabu, Kyegegwa, Bundibugyo, Ntoroko, and Kasese.

3.2.6.2 CLIMATE

The sub region receives bimodal rainfall (March–May and August- November) estimated at 700-1,400mm annually with temperatures ranging from 20-25^{0}C. August-November is the main production season for agricultural activities in the district which is characterized with high rainfall.

3.2.6.3 VEGETATION AND SOILS

The vegetation of the sub region is typically savannah grassland, shrubs, and some pockets of forests with black loam, sandy and clay as the main soil types. Forestry cover remains intact in Kibale and Kakasi Central Forest Reserves; otherwise most of the natural forests which were not under government ownership were depleted and are now farmlands. Most of that the natural vegetation remains protected in the protected areas such as Katonga Wildlife Reserve and Queen Elizabeth National Park though the protected areas are prone to wild fires during the dry seasons of the year.

3.2.6.4 LAND USE

Land-use and socio-economic characteristics Land in the Midwestern sub region is predominantly used for agriculture both animal husbandry and crop husbandry. 85% of households, i.e. 75,679 out of 89,068 households in the District are engaged in subsistence agriculture. The highlands of Kitagwenda county especially Kicheche sub-county are used for coffee and millet growing while bananas and other food crops like beans, maize, cassava, ground nuts and rice grow on slopes and lowlands as well as in the rift valley. The same areas support livestock rearing. The rest of the land is under agro-forestry establishments for the middle-income earners and general human settlements like schools and rural growth centres. On the other side of Kibale county land is used for the production of maize which is both food and cash crop for over 80% of the households and similar food crops as in Kitagwenda County. The coming of Congolese refugees affected cattle keepers in the area as they were displaced and had to relocate to other places within and outside the district. Land in the refuge settlement is now used for agricultural production especially maize, beans and Irish potatoes; the area has become business centre attracting traders from the whole country.

3.2.6.5 ETHNIC COMPOSITION AND CULTURAL SET UP

The dominant ethnic compositions are the indigenous Batagwenda, Bkonzo and Batoro as well as the newly settled Bakiga, Bahima, and Banyankore. Rwamwanja became a refugee Settlement in 1962/64 and all the refugees were of Rwanda origin who all left the Settlement in 1994. While the host community has learnt to live in harmony with no apparent conflict, the refugees are bound together by the refugee status they find themselves in.

3.2.6.6 POVERTY AND DEVELOPMENT IN THETHE SUB REGION

Overall, poverty incidence in Western Region dropped by over half (58%) from 2005/2006 to 2012/2013, the largest decline (in relative terms) of all four regions. Poverty reduction was driven largely by growth of the agriculture sector, driven in turn by high food prices on national and world markets, increases in

the area under cultivation, and to a lesser extent the adoption of improved agricultural technologies. Development-related indicatorsMid-Western Sub-Region and Western Region where Kamwenge is located indicate that, poverty in the district is fuelledfuelled by high fertility rates. District total fertility rate of 6.9 births per woman is higher than Uganda's rate of 6.2 births per woman, which is already one of the highest in the world (UBOS 2012, GoU Higher Local Government 2009). A little over a third (37%) of children 6-12 years of age are currently attending school. Most (85%) households practice subsistence farming. The majority of households live in homes with non-permanent walls (83%) and floors (78%), with unimproved or no toilet facilities (84%).

3.2.6.7 FOOD SECURITY

Most of the mid-westernwestern Districts suffers from widespread chronic food insecurity. A study of chronic food insecurity in Uganda in 2015 found that in Mid-Western Sub-Region, where Kamwenge District is located, almost two thirds (62%) of the population suffers from mild (28%), moderate (17%), or severe (17%) chronic food insecurity (FAO Uganda 2015). The nutrition situation is also concerning: The Uganda Demographic and Health Survey for 2011 found that in the Mid-Western Sub-Region 44% of children under 5 were stunted, 16% were underweight, 3% were wasted, and 39% of children 6-59 months of age were anaemic.

3.2.6.8 LIVELIHOODS OF UGANDANS IN TOORO SUB REGIONREGION

According to the national livelihood zoning exercise, one livelihood zone encompasses all thethe sub region (the Central and Southern Maize and Cassava Livelihood Zone)[25] which is a low-productivity zone in the southwest of Uganda's cattle corridor. About two thirds (65%) of households in Western Region report that their main economic activity relates to agriculture, forestry and/or fishing, and over half (55%) of the working population reports that they are engaged in subsistence agriculture, often in combination with other income generating activities (UBOS, 2014).

Farming in the district is dominated by bimodal smallholder subsistence production and some areas where cattle are kept. Relatively little information is available regarding off-farm income generating activities. For the third of households (35%) that report that their main economic activity is not subsistence farming, the households reported engaging in: trade (11%), manufacturing (7%), transportation and construction (3% each), and various other services (13%). Business enterprises present in the sub regionregion include fishing, apiary production (beekeeping), livestock production enterprises (cattle, dairy cattle, goats, pigs, poultry), horticulture and fruit production. Finally, the abundance of riverine and wetland resources in the regionregion, such as Lake George, the Mpanga River, Rushango River, and others, support artisanal fishing and fishing-based enterprises.

3.2.6.9 RWAMWANJA REFUGEE SETTLEMENT IN KAMWENGE DISTRICT

The Rwamwanja settlement is approximately 127km2 with 36 villages in Kamwenge district. The Settlement was created in 1964 to host mainly Tutsi refugees from Rwanda until 1985 when most were repatriated. According to the UNHCR Rwamwanja Factsheet (2014), since the beginning of 2012 Uganda has faced a large influx of refugees from the Democratic Republic of Congo (DRC). Rwamwanja settlement was re-opened by the Ugandan Office of the Prime Minister (OPM) on the 17 April 2012 to

[25] *USAID 2016, Opportunities to Provide Refugees and Ugandans with Alternative Livelihood Activities in Uganda's Kamwenge District*

accommodate these new refugee arrivals from the DRC. Rwamwanja has a maximum capacity of 55,000 people.

3.2.6.9.1 LAND OWNERSHIP DISPUTES

During the time the Rwandese refugees were in Rwamwanja, they acquired reasonable sizes of land mainly for grazing their animals and practicing some farming (bananas and beans). Following their departure in 1994, more Ugandans moved into the Settlement some of whom directly bought from the outgoing Rwandese, while others just moved and occupied what was seemingly free land on prompting form some of the local leaders in the surrounding districts. Although there are some conflicts, it was reported that the entire Rwamwanja Settlement is gazetted as Government property. Under these circumstances it is kept in trust by the Uganda land Commission for the people of Uganda.

3.2.6.9.2 LIVELIHOODS AND ENVIRONMENT

According to the UNHCR Rwamwanja Factsheet (2021) and field studies, UNHCR works with other agencies to provide access to high yielding varieties of common food crops, supporting crop post-harvest handling and informal vocational skills development including tailoring, hairdressing, baking, craft making and soap making for group-based income generation. **There are now over 30 supported livelihoods groups in the settlement**. Community savings and credit structures (Village Savings and Loan Associations) are promoted to increase refugees' access to cheap credit. Tree planting through community tree nurseries and "tree marking" are used for environmental conservation as well as support to access low-cost energy efficient technologies like Lorena stoves and charcoal briquettes. To date, over 5,000 households have benefited both directly and indirectly from the above interventions. Paid employment is coming up within the Settlement due to the many implementing partners who sometimes pay refugees to perform certain tasks such as road construction. Field consultations revealed that since most refugees are in farming, they face a problem of post-harvest losses due to poor or no storage facilities available in the area. As a result, food produced especially in Rwamwanja (Irish potatoes, maize, etc.) is sold very cheaply to the buyers who come from urban areas like Kampala to take advantage of the situation.

3.2.6.9.3 ENERGY

The main power source for domestic needs in the Settlement and its surrounding is firewood for cooking. Within the project area, kerosene/paraffin and firewood continue to be the main source of energy for lighting for most households. There were a few homesteads both within and outside of the Settlement which had solar panels mostly for lighting and charging phones. Multiple challenges are associated with the collection, supply and use of fuel for cooking, lighting and heating purposes for the most vulnerable in humanitarian, transitions and development settings. Without safe and dignified access to cooking fuel, not only beneficiaries cannot cook the food they receive, but they may be forced to resort to negative coping mechanisms such as selling or bartering food for fuel, undercooking to save on fuel or venturing in unsafe places to gather wood.

3.2.7 BUSOGA SUB REGION

The project will be implemented in the districts of Buyende, Kamuli, Luuka, Kaliro, Namutumba, Bugiri, Bugweri, Iganga, Mayuge and Namayingo whose general baseline is summarised as follows:

3.2.7.1 TOPOGRAPHY

The land is generally characterized by gentle undulating hills with few higher residual features. A somewhat higher relief across the district forms two main watersheds; a northern drainage and a southern drainage; the latter of which drains to Lake Victoria. Major swamps include Igogero, Kibimba

and Dohwe and major hills are Irimbi, Bululu and Namakoko. The terrain upon which Namutumba District is located is that of remnant Busoga surfaces and valleys. Physiographical, it rises from lowlands of 3,830ft (1,167m) to hilly surroundings of 91,2249m) above sea level. Elsewhere are valley sediments eroded from higher grounds, which form part of the District Basement Valley of varying gradients that separate the steep slopes of Namutumba District, these valleys form essential natural drains of the district downstream towards Mpologoma.

3.2.7.2 CLIMATE

The sub-region enjoys a tropical climate and is characterized by comparatively small seasonal variations in temperatures. The rain falls for 160–170 days each year with two peaks from March–May and October–November. The temperature ranges from 22^0 C to 27^0 C with an annual average of 25°C. The annual temperature range is 23-27°C. The mean annual rainfall is 1000mm with a range from 900-1150mm. The district is of bi-annual season with the 1st rains covering March-June and 2^{nd} rains August–November.

3.2.7.3 SAFE WATER COVERAGE

Mayuge district is one of the districts in Busoga where safe drinking water is hard to come by, despite its location on Lake Victoria. With water coverage of 54%, and over 242,000 people without access to safe drinking water, the district is in the ranks of 20 others categorised as “water stressed”, according to the Ministry of Water and Environment (MoWE). In Kaliro, safe water access rates vary from 14 % in Bukamba Sub-County to 95 % in Kisinda Sub-County. The district has 596 domestic water points which serve a total of 176,558 people–167,927 in rural areas. About 28 water points have been non-functional for over 5 years and are considered abandoned. In addition, the Kaliro has 2 piped schemes.

For Namutumba areas, access to safe water coverage vary from 33 % in Ivukula Sub-County to 95 % in Nangode Sub-County. Namutumba has 665 domestic water points which serve a total of 181,949 people–174,443 in rural areas. About 81 water points have been non-functional for over 5 years and are considered abandoned. Namutumba has 1 piped scheme. The access rates in Iganga vary from 56 % in Nambale Sub-County to 95 % in Bulamogi Sub-County. Iganga has 857 domestic water points which serve a total of 283,099 people–228,374 in rural areas. About 15 water points have been non-functional for over 5 years and are considered abandoned. Iganga has 1 piped scheme.

3.2.7.4 VEGETATION

The current vegetation cover in the areas of Busoga is a result of various human influenced or impacted activities, with most of the areas under crop vegetation. There are isolated patches of natural forest left on a few hills, valleys and lakeshores. Elsewhere, grasses such as *Pennisetum purpurem* and *Hyparrhenia rufa* dominate the vegetation cover. Remnants of tropical trees are scattered on many farmlands with species like *Markhamaia lutea* (Lusambya), *Ficus* spp (omutuba), *Melicia exelca (*Muvule tree), and *Albizia* spp. dominating most parts of the sub-region. However, the modified types dominate the large extent in settlement or built-up areas in the urban areas, along landing sites and fishing settlements.

3.2.7.5 SUGAR CANE GROWING AND FOOD SECURITY IN BUSOGA REGION

Experts have pointed out sugarcane growing as the cause of chronic poverty and hunger in rural Busoga. It is reported that, the natives have taken on commercial sugarcane growing at the expense of food crop, occupying vast land, and reducing food production and losing the indigenous varieties. A report by the Uganda Bureau of Statistics (UBOS 2017) revealed that Busoga sub region was among the most impoverished in the country. The report further found out that, the number of poor people in

rural areas has increased to 10 million from 6.7 million in 2013. It is further reported that, most farmers in districts of Iganga, Mayuge, and Kamuli have stopped growing crops like cotton, bambara nuts (*empande*), sunflower, pumpkin, and millet due to low demand while buyers also offer low prices for such crops, adding that some crops are taken as old people's crops including millet.

In recent years, it is noted that, there is evident decrease in land availability for crop cultivation, food availability as well as a decline in livestock numbers. The declining land availability result here corroborates the results of the land use/cover change analysis results that show that increasing land for sugarcane cultivation has over the years taken over the arable for food crop production and other natural ecosystems. The combination of increased food crop failures, family sizes, and the decreased land available for food crop cultivation heightens the food insecurity situation in the study area. Most of the households now depend on their home gardens as the main source of food and nutrition. However, the sizes of these home gardens continue to shrink as some of them, and where they are located, is increasingly converted into the assumedly lucrative commercial sugarcane.

3.2.7.6 POVERTY IN THE BUSOGA REGION

Busoga region according to the Uganda Bureau of Statistics (UBOS 2021) report indicates that the incidence income poverty levels in Uganda during the COVID-19 pandemic have increased to 22% from 19% with the Busoga region at 14%. Busoga has over the years been ranked top among regions with high poverty levels. In response, the government has come with several interventions but these seem not to be working since the poverty levels are continuing to rise. A report released by Uganda bureau of statistics indicates that poverty levels have increased from the time coronavirus was confirmed in Uganda last year. The report shows that poverty levels in the Busoga sub-region stands at 14.5%, followed by the Bukedi sub-region at 10.4 and the Acholi region with 10.3%. Out of the 8.3 million people believed to be below the poverty line, 1.162 million people are in Busoga sub region, where many cannot afford a pair of shoes. In the affected areas, children were subjected to child labor. This is explained by the 14% rise from 21% to 36%. Besides the rising poverty levels, access to education is yet another challenge, with most learners trekking long distances, which explains the high school dropout.

It is said that; poverty levels had increased in Busoga largely due to increased population caused by poor family planning. The region has high population density but people don't want to do low-level economic activities which has contributed to poverty. Also, most of them are farmers who deal in growing sugarcane which almost take two years to mature, this means that a person will spend two years lacking money. It is further noted 14.5% of people in Busoga are totally poor, in Bukedea they are 10.4% while Acholi has 10.3%. In addition, it is noted that, the outbreak of COVID-19 has also contributed much to increased levels of poverty.

Figure 3-12: ***Housing in rural setting in Mayuge areas of the planned project***

3.2.7.7 TUNGIASIS/JIGGER INFESTATION IN BUSOGA SUB-REGION

Tungiasis, also called *Tunga penetrans* (commonly referred to as jiggers) infestation, is a parasitic skin infestation due to penetration of a female sand flea (*Tunga penetrans*) into the skin of its host. It is one of the neglected tropical parasitic diseases and has remained an important public health problem especially among economically challenged communities in sub-Saharan Africa. Jigger infestation is endemic in developing countries, particularly where poverty and low standards of basic hygiene exist. *Tunga penetrans* in communities could be attributed to: presence of animal reservoirs such as dogs, cats, pigs, cattle, sheep, horses, mules, rats, mice and wild animals in close vicinity to living quarters, illiteracy, ignorance and negligence, earthen floor houses, and walking bare footed or only with slippers. Poverty and prolonged dry spells are presumably the other factors favouring the high prevalence of tungiasis among communities. In most of the endemic areas, *T. penetrans* prevalence ranges from 15-40% but at times can be as high as 50% in some rural communities. Additionally, the prevalence of *T. penetrans* is higher in certain populations especially among certain age groups such as those between 20-60 years. People afflicted with tungiasis are at increased risk of getting open wounds and suffer from anaemia and tetanus.

A study carried out to determine the prevalence of *tungiasis* and associated risk factors in Busoga sub-region in Eastern Uganda showed that the prevalence of *tungiasis* was still high and could be attributed to the poor hygiene, poverty and failure to seek treatment due to stigmatization[26]. *Tunga penetrans* are

[26] Solomon Tsebeni Wafula, Charles Ssemugabo, Noel Namuhani, David Musoke, John Ssempebwa, and Abdullah Ali Halage (2016). Prevalence and risk factors associated with tungiasis in Mayuge district, Eastern Uganda. *Pan Afr Med J. 2016; 24: 77. Published online 2016 May 24. doi: 10.11604/pamj.2016.24.77.8916*

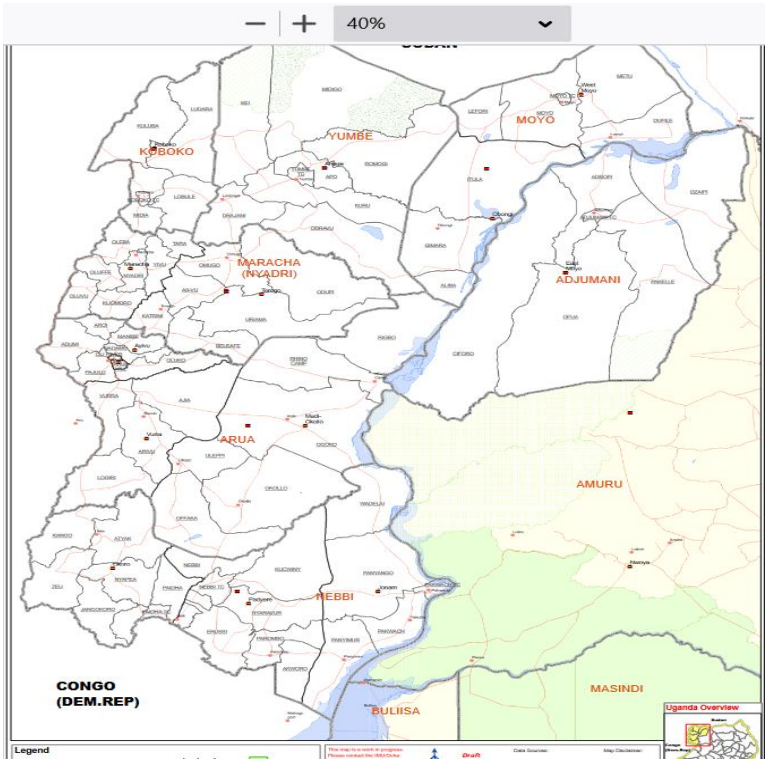
still a big problem in rural settings in Eastern Uganda. Interventions should therefore be put in place to prevent and control *tungiasis*. More emphasis should be given to improving personal hygiene and general cleanliness, housing structures and health educating the community on the risk factors of tungiasis and their prevention and control.

3.2.7.8 GENDER BASED VIOLENCE IN BUSOGA AREAS

In the Eastern part of Uganda, Gender Based Violence (GBV) rates are higher than anywhere else in the country. In response to this, Irish Aid is supporting a programme to address GBV in Busoga region, together with the Government of Uganda and civil society organizations. Communities in Busoga region are troubled over an increase in cases of Gender Based Violence in the area. Kamuli and Namutumba districts have topped Busoga Sub-Region in violence cases against women and children during the lockdown, according to call-in records at Nyonga Women's Shelter, a facility counselling and helping in the mediation of survivors of Gender Based Violence (GBV). The shelter was constructed in 2017 by Women Rights Initiative (WORI). Kamuli is one of the districts in the region that is benefitting from this programme, where a GBV Advisory Centre is providing legal and counselling services to victims of gender-based violence.

3.2.8 WEST NILE SUB-REGION

In the planned project areas, the beneficiary districts will include; Koboko, Maracha, Moyo, Pakwach, Nebbi, Yumbe and Zombo, Madi-okollo, Obongi, Adjumani and some of their baseline details are as follows:



3.2.8.1 TOPOGRAPHY

Land Tenure Land tenure has emerged as one of the most critical issues of physical planning within the region and municipalities. There are four types of tenure in Uganda - Mailo (registered and owned in eternity under the 1900 Buganda Agreement), freehold (for Ugandans buying land converting customary land rights), leasehold (anyone leasing land), customary (for Ugandans owning land by tribal customary

rights) as per the 1995 Constitution. Around 80% of the land is held under customary tenure. Different tenure patterns correspond to various cultural roots across Uganda. Land rights under customary tenure are mostly unregistered and lack any formal documentation. In absence of a cadaster of such land rights, visualizing and considering ownership boundaries is a challenge and a cause for conflict when local leaders and communities are not consulted

3.2.8.1.1 POPULATION

West Nile has a total projected population of **2,988,300 people** living in approximately 500,000 households (as per 2018 Uganda Bureau of Statistics estimates). While the household is the primary unit of social life, the village is the centre of local governance throughout the region

3.2.8.1.2 . ECONOMIC ACTIVITIES

The main economic activity in the sub region is agriculture but this is done on a small-scale level. Other key activities are trade and commerce. The main cash crop grown for the past decades has been tobacco but in the last few years tobacco has been gradually abandoned in favor of food production. Among the main crops grown are cassava, beans, sweat potatoes and maize. Livestock farming, fishing and bee keeping are also widely practiced. Other economic activities include trading in commercial merchandise, trade in produce, fish mongering, brick laying, timber exploitation, charcoal burning and brewing of local spirits.

3.2.8.1.3 DIVISION OF LABOUR

Predominantly male tasks in agriculture include the felling of trees, ploughing with oxen or tractors, digging holes, the purchase and use of chemicals, looking for markets and the sale of produce. Women usually undertake sowing, harvesting, head loading of produce, crop-drying, winnowing, seed selection, pig and poultry-rearing and bartering sunflower seeds for oil. Other tasks, such as weeding, bagging and crop storage, are almost equally undertaken by both women and men. It is estimated that women do 85% of the planting, 85% of the weeding, 55% of land preparation and 98% of all food processing. However, decisions to market are mainly made by men (70%), or are made jointly (15%). In rural areas, it is estimated that women's workloads both in the agriculture sector and household considerably exceed those of men. Traditionally, men tend to be responsible for the cash crops, but male labor is usually withdrawn if those crops decrease in profitability

3.2.8.1.5 CLIMATE CHANGE

The sub region has a bi-modal rainfall pattern with light rains between April and October. The wettest season normally August and September receive 120mm/month. The average total rainfall is 1250 mm per year. The mean monthly evaporation ranges from 130 mm-180 mm. In the dry season (December-March) temperatures in this part of the country remain high throughout. According to local authorities, environment is degrading due to deforestation for informal charcoal production that, increases local impact of global climate change trends, and affects local rain patterns. There are specific laws and resources from the government for tree planting, but the implementation of those legal frameworks is not sufficient. Traditionally chiefs were in charge of the protection of the environment, but awareness and practice of care are declining with younger generations and economic development is often put as priority without considering long-term environmental impacts, which might be irreversible.

3.2.8.1.5 MIGRANTS AND REFUGEES

The West Nile region has 3 million inhabitants, and hosts around 0.7 million registered refugees, concentrating in the districts of Arua, Koboko, Yumbe, Moyo and Adjumani (UNHCR 2018). The attitude towards refugees and migrants is generally inclusive due to cultural and tribal reasons ("we are the same people"). While many migrants from South Sudan and DRC are officially registered as refugees and access aid structures in camps, many others have moved into urban areas, using the cities' services, renting houses and working in both the formal and informal sector. Uganda recognizes this fact and the term "non-citizens", instead of refugees, is often used, but there is rarely any formal data on the numbers (apart from some figures in VNG International's report "Self-Settled Refugees and the Impact on Service Delivery in Koboko Municipal Council") As the number of urban refugees immigrating without formal registration or migrating into urban areas is growing, this poses serious challenges and potential conflicts with hosting urban communities.

4 POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND MITIGATION

4.1 ENVISAGED POSITIVE ENVIRONMENTAL AND SOCIAL IMPACTS

Climate-smart agriculture (CSA) is an integrated approach to managing landscapes—cropland, livestock, forests and fisheries—that addresses the interlinked challenges of food security and accelerating climate change. The planned CSA interventions is expected to simultaneously achieve the following positive impacts:

a. ***Improved nutrition amongst the population:*** By and large, CSA addresses food security, misdistribution and malnutrition. Uganda has made tremendous progress in reducing the number of people living below the poverty line, however, progress in reducing under nutrition and food insecurity remains slow due to the multiple nature of the causal factors[27]. However, the country still faces problems of malnutrition and there exists pockets of famine and hunger. Although the country as a whole is generally self-sufficient in food supplies, food shortages still occur. This is the result of the limited use of appropriate agricultural technology, over-dependence on rain-fed agriculture, lack of markets and market information, inadequate rural financial services, poor feeder roads, poor and inadequate storage and processing facilities, stress food sales and inadequate buffer stocks. Therefore, through CSA project interventions are geared towards improved crop production such as access to improved climate smart seed varieties, improved use of fertilizers, promotion of SLM practices geared at water preservation through water shade management, hence, improved food availability at household levels by developing households' farming skills through adoption of appropriate agricultural practices, post-harvest and storage technologies, control of crop diseases and pests through IPM and on-the-job trainings for farmers coupled with soil conservation measures and carefully selection of integrated enterprises at household levels;

b. ***The use of resource efficient agriculture, sustainable land and water management, climate relevant/resilient agriculture infrastructure,*** and increased production, productivity and marketing for smallholder farmers will lead to improving the quality of life of the value chain actors in the CCAAU, especially the smallholder farmers, including women and youths while at the same time reducing GHG emissions through practices involving feed improvement, manure management, breed enhancement, zero biomass burning, adoption and popularization of biogas use for cooking and lighting, tree planting amongst others. This will in turn lead to the realization of economic opportunities of green growth through market access and increased farm income for smallholder farmers, and employment/jobs for value chain actors leading to increased resilience to climate change;

c. ***Sustainable Land Management (SLM) structures and practices will be promoted:*** Land degradation, including environmental degradation, through poor farming practices continues to impact negatively on agricultural productivity and negating any efforts to improve productivity through increased use of purchased agro-inputs. The SLM practices (soil erosion control, intercropping and cover crop planting amongst others) can prevent, reduce or restore degraded lands by reducing soil erosion, improving water storage and increasing soil quality, and thereby increase productivity. These attributes also contribute to climate change adaptation as well as

[27] Uganda Food and Nutrition Policy, 2003

mitigating climate change by reducing agricultural emissions of GHG and sequestering carbon in vegetation, litter and soils;

d. ***Promotion women empowerment in agriculture:*** Despite women's dominant role in the sector, they still face a myriad of constraints surrounding access, ownership, and control over the means of production. It is estimated that 69% of all women in Uganda don't own land and are only granted access through their spouses or other male family members. When women do not have effective ownership over land this negatively influences decisions about long-term investments in the land as well as their ability to access financial services since they lack collateral. These, amongst others, limit their ability to participate in higher nodes of value chains and restricts their capacity to grow within the sector. In the face of growing climatic threats to agricultural production, the project has set aside measures geared towards prioritized adaptation efforts as well as to identified mitigation opportunities in the agricultural sector which are meant to engender the interventions in the sector.
e. ***Measures for minimizing emissions from key sources in agricultural production systems:*** CSA focuses on development of mechanisms that minimize greenhouse gas emissions from key sources in agricultural production systems through formulation and support of programs that promote development and use of low emissions technologies to manage livestock feed and manure. In addition, the formulation of improved feeds and feed additives to reduce enteric fermentation will be undertaken. Some of the activities that would reduce agriculture emissions will involve intensive livestock management systems using improved breed quality and improved feed, fodder and pasture quality that is more digestible; adoption of manure management practices including biogas production and utilization; adoption of minimum tillage practices on cultivated land (including organic soils); and regulated usage of fertilizers accompanied by precision planting techniques to enhance efficiency alongside IPM technologies. Furthermore, there is a focus on reduction in the rate of emissions from rice production systems through promotion and development upland rice in the value chain and develop and transfer appropriate technologies for efficient rice production.
f. ***On farm, production intensified through use of improved inputs complemented with good agricultural practices:*** Smallholders in Uganda get only 30% of research station yields and is largely attributed to low in-put use under predominantly rain-fed conditions. Only 23% of agricultural households' plant improved seeds, and 21% use agro-chemicals. For tillage and farm power, the hand hoe is the main production tool. Roughly 10% of farmers use animal traction, and only 1.2% use tractors. These have been compounded by environmental, land degradation, climate change impacts, and worsened by the COVID–19 pandemic. To address these challenges, under ASSP II, GoU prioritized provision of inputs as a key intervention area by providing subsidy to farmers through farmer groups to purchase and utilize agro-inputs through the electronic voucher scheme. It is envisaged that; the scheme will enable farmers to access essential inputs package comprising improved seeds and fertilizer value at about USD 180 over seasons or cycles.
g. ***Enhanced partnerships (case for coffee farming in Uganda):*** Coffee is Uganda's largest export product and generates 20% of foreign exchange earnings. However, climate change could negatively affect coffee production and dampen the economy. To address this challenge, research institutions are working throughout the value chain to grow the coffee industry and empower smallholder farmers through adaptation of practices such as adding shade to coffee which can change the micro-climate and reduce the temperature in coffee growing areas by 2-5°C. These shade trees, like banana, can generate 50% additional income for farmers, while also absorbing carbon in the soils and reducing temperatures and drought problems. In addition to CSA techniques such as intercropping, mulching and the use of shade trees, researchers used International Panel on Climate Change (IPCC) climate models to develop maps showing where arabica and robusta coffee varieties can be grown in Uganda. Therefore, through CSA interventions, farmers will have a clearer idea of the future impacts of climate change and even the private sector can better plan for their business.

h. ***Potential increase in adoption of climate resilient agricultural practices:*** Uganda's agricultural sector is experiencing climate change effects manifested through, frequent and severe dry spells, floods, high temperature and increased incidence of pests and diseases. Vulnerability to climate change is exacerbated by land degradation, resulting in reduced productivity, loss and damages, and low sector performance. The continued lack of real transformation of the agricultural sector renders achievements within the sector unsustainable and keeps population vulnerable to external shocks, such as climate change. Therefore, the envisaged increased efforts within the sector, maintaining focus on climate-smart approaches as well as growth, while increasingly involving and tasking GoU, will potentially contribute to an important breakthrough in transformation.

i. ***CSA addresses the relationship between agriculture and poverty:*** Agriculture continues to be the main source of food, employment and income for many people in Uganda. Through the support of CSAT smallholder farmers in targeted areas will improve their knowledge, skills and technologies in climate change adaptation and apply climate relevant farming practices. They will also increasingly use appropriate farming practices for the selected crops. Through the e-Voucher system they will have access to and hence increase the use of improved inputs. Increased use of improved input that is tailored to address the farmers' production constraints will in turn increase productivity, production and surplus for sale. This would increase their income and hence ability to afford CSA practices and technologies and will in turn lead to gains in productivity, marketable surplus, market participation, produce sales and household food security and incomes.

j. ***Envisages to bring about maintenance of ecosystems goods and services:*** Ecosystems provide farmers with essential services, including clean air, water, food and materials. It is therefore imperative that CSA interventions do not contribute to their degradation. The goal of the climate change, natural resources, environment and water management program is to stop and reverse the degradation of water resources, environment, natural resources as well as the effects of climate change on economic growth and livelihood security.

Under the project, some of its set targets are to attain;

- Reduced or prevention of silting of water sources;
- Restoration of degraded wetlands;
- increase land area covered by forests;
- increase the accuracy of meteorological information;
- increase the percentage of automation of weather and climate network.

These will all go a long way in addressing wider climate change implications and concerns facing Uganda. Thus, the planned CSA adopts a landscape approach that builds upon the principles of sustainable agriculture that are able to go beyond the narrow sectoral approaches that result in uncoordinated and competing land uses, to integrated planning and management.

k. ***Increase commercialization and competitiveness of agricultural production and processing:*** The agro-industrialization agenda is aimed at increasing commercialization and competitiveness of agricultural production and agro-processing. Some of the proposed interventions under the agro-industrialization program that are of high significance for this project are to: strengthen the capacity of Uganda National Metrological Authority through recruiting community-based facilitators and strengthening linkage of UNMA and districts in collecting and disseminating area specific and timely weather information;

l. weather for crop weather index insurance up to sub-county level; improve the transportation and logistics infrastructure for priority commodities, like refrigerated trucks and cold rooms; promote

sustainable land and environment management practices by promoting land and soil conservation practices in the prioritized commodities and introducing and upscale Agro-forestry in order increase agricultural production while adapting and mitigating climate change.

m. ***Building resilience and associated mitigation co-benefits*** – CSA will help reduce vulnerability of Uganda's agriculture sector by increasing productivity, enhancing adaptation and resilience of the farming systems and reducing emissions intensity in the context of achieving sustainable development and poverty eradication.

n. ***Value chain integration*** –This approach is holistic in that it considers input supply, production, agricultural services, marketing and business support services as necessary building blocks. Under the approach, both public and private sectors are seen as critical actors in the value chain. Knowledge and capacity building are critical strategic priorities to leverage innovations and increase efficiencies. The approach also provides enabling framework for integrating gender and the needs of the youth.

o. ***Research for Development and Innovations***- Although Uganda has a well-developed agricultural research system, use of modern science and climate smart technologies in agricultural production is still limited. Inadequate research–extension–farmer linkages to facilitate demand-driven research and increased use of improved technologies continue to constrain efforts to increase agricultural productivity as farmers continue to use outdated and ineffective technologies. Therefore, in this project, the role of research will be re-oriented to support innovations that are geared to facilitate the transition to climate-smart agriculture by smallholder farmers. In addition, new and emerging agricultural research partnerships will identify technological advances that respond to the impact climate change and climate variability. A major thrust will be use of climate-smart agricultural practices, promoting improved land management and sustainable crop-livestock and fisheries intensification, in order to bolster farmers' adaptive capacity and support the national vision of achieving food security.

p. ***Improving and sustaining agricultural advisory Services*** Agro-advisory services that include climate applications for agriculture will help farmers to make better and informed decisions in the face of risks and uncertainties, in addition to the integrated management of present and emerging pests and disease challenges. Climate applications include seasonal weather forecasts, monitoring and early warning products for drought, floods and pests and disease surveillance. These products and services would increase the preparedness of the farmers, well in advance, to cope with risks and uncertainties. Furthermore, robust agro-advisory services are likely to catalyze private sector investment in priority areas such as weather-based index insurance and associated infrastructure.

q. ***Support and empowerment of refugees and the host communities*** in their common interest groups (CIGs) to improve their livelihoods by effectively participating in agricultural value chains, and all year-round production of micro-nutrient dense (rich) foods for their improved household nutrition. Through the project, refugees are to become self-reliant and empowered through adoption of holistic integrated district-level refugee management approach.

r. ***Serve to strengthen institutional capacity for effective delivery of services to refugees and host communities*****:** The project plans to invest in building and strengthening the capacity for implementation of planned interventions in support of productivity and production enhancement in selected CSA value chains, and orientation of refugees and host communities towards markets. The CIGs will be formed in where they are none exist or strengthened to be the entry points for planning for and undertaking technology up-scaling. The CIGs will also be supported to aggregate to form higher level associations and organizations for business planning and investments for value chain activities (off-farm post-harvest handling, storage, and market linkage). In addition, the project will support and build the capacity of refugee settlements and host districts for effective planning,

management, and coordination of project interventions in this communities including the provision of agricultural extension services in refugee settlements.

s. ***Increasing production, productivity, and access to markets for identified climate smart value chains:*** Under the project, up to three appropriate climate smart agricultural value chains will be identified for each of the refugee settlements and host communities by supporting farmers accessing TIMPs for their selected CSA crops, livestock including poultry and aquaculture as well as soil and water, and agroforestry. These will be complimented with training on climate-smart technologies, and the CIGs linked to private sector actors to access quality inputs such as seeds, fertilizers, micro-irrigation kits and mechanization among others through micro-projects funds. The project will facilitate on-going efforts to develop partnerships between refugees and host communities for land utilization as a way of increasing access to land for agricultural production. Furthermore, it is envisaged that, the refugees and host communities will be trained on climate-smart technologies and linked to private sector to access quality inputs such as seeds, fertilizers, micro-irrigation kits and mechanization among others, to enable them increase productivity of the selected value chains and food crops.

t. ***Support towards*** investments to improve food and nutrition security at household levels through all year-round production and consumption of a diverse range of micro-nutrient dense food crops including indigenous and introduced vegetables, legumes, pulses, tubers, and fruits (dietary diversification) will be supported for both household consumption and market. A separate nutrition grant will be provided for investments in CIGs micro-projects such as sourcing for foundation technologies for group multiplication and demonstrations. Funds will also be provided to support access and installation of infrastructure for agricultural production, including irrigation, processing and storage to address household food and nutrition needs in both refugee settlements and host communities. Specifically, under the project, financing will be provided to support nutrition education to refugees and host communities with particular emphasis on children, pregnant women, and lactating mothers.

u. ***Skills development and job creation for refugees and host communities:*** Although estimated 43% of refugee children are enrolled in education institutions, opportunities for post-primary alternative education and life skills are lacking, with limited alternatives for youth engagement in vocational training in refugee settlements and host communities. For the refugees and host communities to meaningfully engage in agricultural value chains, a diversity of skills is required in the different segments of the value chains, mainly in-service provision. The project will support competitively selected youth to acquire relevant skill sets and enable them to become service providers in the various agricultural value chains and through this, the youth both in the refugees and host communities will be equipped with necessary skills for gainful employment.

4.2 POTENTIAL-GENERIC NEGATIVE ENVIRONMENTAL AND SOCIAL IMPACTS AND MITIGATION MEASURES

The project has a potential to generate negative E&S impacts and thus affect negatively the environment and livelihoods of the host communities though the envisaged overall impacts are mainly positive. For the negative impacts the magnitude will vary in degree depending on the nature of investment under the UCSAT project. At this point, the exact impact of the future investments under the UCSAT project is not yet known and it will only be known when investments under the project are identified. Once the sub-project sites, designs and scope are known, cumulative impacts shall be considered as part of site specific ESIAs/ESMPs.

As discussed in the preceding Sections above, the main potential environmental and social risks and impacts associated with project activities emanate mainly from Components 1, 2, 3 and 4. Therefore, the management measures to mitigate the environmental and social risks and impacts shall include among other measures to minimize potential negative risks and impacts on communities, ecologically and agronomically sensitive areas, here summarized in Table 4-1 below. Detailed technical guidance on E&S aspects of different sub-projects shall be guided by and not limited to the generic mitigation measures outlined in the following Table.

Table 4-1: Generic E&S Impacts and Mitigation Measures for SLM and associated small scale infrastructure

Impacts	Mitigation
General Sustainable Land Management Sub-projects	
Geology/Hydrogeology •Interruption or disruption of surface and groundwater flows from construction, excavation and ground clearance during introduction of related infrastructure.	Design to take account of local hydrological conditions (e.g. taking extra care near permanent watercourses, do not hamper drainage of surface water, avoid works in areas prone to flooding especially during rainy season).
Soils, Run-off and Flooding •Loss, damage or disruption of soil from construction, excavation and ground clearance during development or introduction of related infrastructure.	•Minimisation of cleared areas and soil disturbance in key habitats, retention of topsoil for restoration following construction activities, revegetation of cleared areas as soon as feasible with native species. •Early installation and regular maintenance of drainage around agricultural land and construction areas, silt traps, etc; outlets to discharge into vegetated areas if possible; vegetation along watercourses and drainage lines to be retained if possible. •Careful consideration of timing of works (overall duration and seasonality), and design to reduce sedimentation and facilitate maintenance.
Pollution of Soils and Water •Release of hazardous substances during construction or maintenance activities (e.g. accidental spills and leaks) and during operation (e.g. fertilisers, pesticides, chemicals used in wastewater treatment) leading to soil, surface or groundwater contamination.	•Implementation of standard good wastewater management procedures, including appropriate treatment to international standards and monitoring quality of receiving waters and soils; plan discharge of wastewater in accordance with the absorbing capacity of receiving water bodies. •Conserve vegetation along water bodies and near wetlands, especially at wastewater discharge points.

Impacts	Mitigation
	•Materials handling and control procedures, use of storage and containment equipment meeting international standards. •Control of construction/maintenance vehicle movements and prohibition of vehicle washing in watercourses, and similar practices. •Emergency response plans during construction (contractors and local authorities) and operation (local authorities).
Air Quality •Dust and emissions from construction and maintenance activities could affect human health, vegetation and wildlife.	•Sensitive site selection and siting of project components. • Use of modern equipment meeting appropriate emissions standards, and regular preventative maintenance. •Dust control and suppression measures such as dampening, use of vegetation hedges etc. •No use of ozone depleting substances during construction. •Use of energy saving technologies
Noise and Vibration •Noise and vibration from construction and maintenance equipment, traffic and activities, may disturb sensitive noise receptors (human, fauna).	•Sensitive local siting of components and construction sites, accompanied where necessary by noise attenuation measures. •Use of modern, well-maintained equipment fitted with abatement devices (e.g. mufflers, noise enclosures). •Strict controls of timing of activities, e.g. blasting and other high noise emissions; prohibition on night working. • Observance of seasonal sensitivities (e.g. breeding seasons), and alteration of activity to reduce noise levels at that time.
Resources and Waste •Inefficient resource use and waste management during construction, operation and maintenance leading to excess consumption of materials, generation of wastes/emissions, pollution of soils and water.	•Plans for land/water usage to be informed by detailed study as part of project preparation and design, considering all uses and users. •Any abstraction to take place with approval of relevant authorities at all locations. •Regular preventative maintenance of all system components to ensure that water wastage is as far as possible limited.

Impacts	Mitigation
	• Promotion of water efficiency and water recycling: implement water fees/tariffs and other demand management measures to avoid the wastage of water or over-consumption. • Clearly define rights to resources and any responsibilities, fees and conditions in consultation with affected groups. • Preparation of Waste Management Plan following the waste hierarchy, supported by staff training. • Earthworks to be designed to achieve a balance between cut and fill wherever possible. • Use of authorised contractors for hazardous and any other wastes which the project cannot dispose of safely. • Implementation of standard good wastewater management procedures.
Loss, fragmentation and degradation of habitat, and severance of animal migration routes and pathways • Outputs from sustainable land management activities (e.g. wastewater and non-point source pollution agricultural intensification) causing loss, degradation or fragmentation of protected or ecologically sensitive areas, and other areas of conservation interest; degradation following poorly managed rehabilitation; with resultant impacts on species supported by these habitats.	• Careful siting of all project components, with advice from biodiversity authorities/wildlife specialists. • Wherever feasible, establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive and avoidance or minimisation of activity within these zones. • Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value (especially those providing ecosystem services related to land or water resources), using specialist advice and input so as to maintain the integrity of the habitat, backed up by a long-term monitoring programme and corrective actions as necessary. *Where development in sensitive areas cannot be avoided, mitigation may include:* • Minimisation of area impacted, clear demarcation of remaining intact areas of habitat, and prohibition of activity into those areas for any purpose; prohibit or minimise activities in vicinity of sensitive

Impacts	Mitigation
	areas, e.g. upstream. •Habitat rehabilitation and ecosystem restoration of areas no longer required to occur as soon as possible after construction. *See also Pollution of Soils and Water above, and Induced Access below.*
Impacts from Induced Access •Development activities may encourage or facilitate human access in remote or undeveloped areas, which can lead to further development, increased disturbance and pressure on natural resources through bushmeat hunting, logging, fire, etc.	•Careful site selection and siting of all project components, with advice from biodiversity authorities/wildlife specialists to avoid remote and previously inaccessible areas where possible. •Restrictions on access to all temporary access roads, and their removal after construction. •Access controls on permanent access roads required for operation and maintenance. *See also Bushmeat Hunting below.*
Direct Impacts on Flora and Fauna •Earthworks and clearance during development of land may lead to loss of plant and animal species. • Introduction of related infrastructure and development could displace animals and disturb their habitats, by direct disturbance during construction and operation (e.g. from noise, general human presence).	•Careful site selection and siting of all project components, with advice from biodiversity authorities/wildlife specialists. •Careful planning of phasing and timing of construction activities. •Demarcation and avoidance of areas of conservation interest (high value species, feeding or breeding sites, migration routes, etc.) where possible, with expert advice. •Also see measures under Soils, Run-off and Flooding, Pollution of Soils and Water, Noise /Vibration and Induced Access above.
Economic Displacement of People, Property, Assets and Resources •Development activities and introduction of related infrastructure may physically displace people, or lead to loss of assets, e.g. loss of agricultural land. •Changes in balance of allocation between users may result in losses to some users.	•Careful site selection and siting of all project components, avoiding occupation of areas which are inhabited or regarded as of high value by communities (e.g. horticulture, community orchards) where possible. •Clearly define rights, fees and conditions in consultation with affected groups. • Develop corrective/compensation measures for affected parties where required (e.g. vulnerable groups, individuals or groups experiencing

Impacts	Mitigation
	reductions in land/water allocations). •Create a user organisation to effectively manage resources and ensure equitable access among users.
Economic Development and Employment •Potential for adverse effects if expectations not met and community relations are not well managed.	•Implement requirements of LMP . •Transparent and culturally appropriate communication with communities regarding employment opportunities. •Fair and transparent hiring and staff management procedures. •Local capacity building to foster community resilience.
Cultural Heritage •Displacement or damage to cultural heritage sites by construction activities, harm to local setting, amenity value, etc.	•Careful site selection and siting of all project components, taking account of community consultation/specialist surveys. •Development of a Cultural Heritage Management Plan covering tangible and intangible (e.g. local traditions and practices) cultural heritage. • Implementation of a "Chance Finds" procedure during construction. *See also Guidance Note on Cultural Heritage*.
Labour and Working Conditions •Poor management of occupational health and safety leading to accidents, injuries and illnesses among workers Sensitive. •Differences in nationality, ethnicity, religion, etc. may lead to discrimination and harassment, and differences (perceived or real) in working conditions between workers may lead to resentment.	•Employment practices and working conditions should conform to International Labour Organisation (ILO) Standards and national regulations. •Rest and recreational facilities and time should be provided, and rules on alcohol and drugs defined and clearly communicated to workers. •The basis for differences in the standard of accommodation should be non-discriminatory; it should be documented and communicated transparently to the workforce. •Clear and comprehensive health and safety reporting and grievance procedure system should be established, and be freely available to the entire workforce. *See also Employment and Economic Development.*
Community Health, Safety and Security •Poor construction management practices may lead to adverse	•Good construction site "housekeeping" and management procedures (including

Impacts	Mitigation
effects on safety, human health and wellbeing. •Interaction between workforce and local communities may increase occurrence of communicable diseases, including HIV/AIDS and sexually transmitted diseases (STDs). •Changes in exposure to water-borne and water-related diseases (e.g. those associated with wastewater, or with presence of wetland habitats).	site access). •Risk assessments and emergency response planning to consider impacts on local communities. •Implementation of a health management system for workforce, to ensure it is fit for work and that it will not introduce disease into local communities. •Training and awareness raising for workforce and their dependents on HIV/AIDS and other STDs, and communicable diseases including malaria; health awareness raising campaigns for communities on similar topics. •Provide information, education and communication about safe uses of water and hygienic behaviour. •Implement environmental management measures for vector control: e.g. monitoring for key vectors; focal insecticide and molluscicide application. •Establish regular controls and maintenance activities to protect quality of local water supply (e.g. through education and training, measures to limit contamination with wastewater). •Facilitate programmes/measures to ensure appropriate sanitary and medical facilities are available. *See also control of pollution under Physical Impacts heading.*
Workforce-Community Interactions •Real or perceived disruption to normal community life, through the physical presence of a workforce Sensitive	•Adoption of a Stakeholder Engagement Plan, as a framework for early and ongoing community consultation. •Implementation of a Grievance Procedure (see Grievance Procedure and Redress Mechanisms guidance note). •Works procedures, defining a Code of Appropriate Conduct for all workers, including acceptable behaviour with respect to community interactions.
In-migration •Local development and improved infrastructure may encourage migration into the area, which may cause conflict with existing resident communities, and put pressure on resources and	•Careful site selection and siting of all project components, after consultation with communities and local authorities. •Preparation and implementation of an

Impacts	Mitigation
infrastructure.	Influx/In-migration Management Plan, in consultation with local authorities. *See also Economic Development and Employment and Induced Access above.*
Small Scale Animal Husbandry Sub-projects	
Human Environment Human health hazards •Introduction of diseases to humans and contamination of water supplies for human use by animal manures and urine. •Pollution and environmental disruption from inappropriate use of agro-chemicals. • Transformation of indigenous (sometimes communal) tenure systems and organizations.	•Collect and store manure for composting and later application to fields. •Keep manure and urine away from household areas and waterbodies. •Consider using a bio-gas system. •Provide protective clothes to minimize danger to field workers applying agro-chemicals. •Avoid overuse of fertilizers. •Apply herbicides and pesticides at recommended times and doses. •Consider pest management. •Comprehensive community participation and attention to rights and needs of all groups.
Soil and Vegetation Degradation of vegetation due to •Too many animals and overgrazing, possibly as a result of stock improvement measures. • Excess harvesting of fodder and forage resources. •Decrease in favoured fodder species and increase in inedible weedy species. •Increased soil erosion due to: Clearing and degradation of vegetation, Trampling and loosening of soil, Animal paths scarring hillsides and triggering erosion, sediment-laden runoff and, possibly, gully formation. •Increased rapid runoff due to vegetation clearing, soil compaction diminishing infiltration capacity. •Deterioration of soil fertility and physical characteristics due to removal of vegetation, increased erosion, soil compaction diminishing infiltration capacity.	•Limit animal numbers. •Control length of grazing time and succession of use on particular areas by using rotational grazing. •Development of dry-season grazing areas and grazing reserves. •Mix animal species to maximize use of vegetation resources. •Reseed and produce fodder. •Use cut-and-carry feed from elsewhere. •Restrict animal access to unstable areas (e.g. by defining and fencing-off critical slopes). •Use soil erosion control measures (e.g. reforestation, reseeding of grasses, land preparation, terracing.
Water Points •Degradation or depletion of vegetation and soil around water points. •Too much use of surface and groundwater sources results in reductions in surface flow and the water table. •Lowering of the immediate water table and degradation of local vegetation through drilling wells and use of boreholes.	•Place water points strategically to spread the effect. •Develop many small-capacity water sources. •Control use of water points (animal numbers and time of year). •Fence off permanent water sources when

Impacts	Mitigation
•Aggravation of the effect of droughts through poor planning, placement, management and control of water points.	temporary pools and streams are available. •Limit well capacity by choice of technologies (e.g. handpumps or buckets instead of motor pumps).
Water Quality •Increased muddiness of surface water courses due to soil disturbances from grazing and increased soil erosion. •Contamination of surface and groundwaters -- and negative effects on wildlife, vegetation, crop yields, aquatic ecology and wildlife -- by agro-chemicals used to control pests and diseases. •Contamination of water supplies from leaching or runoff of animal urine and manures.	•Use biological pest controls before chemical controls to reduce adding toxic residues to the environment. • Choose agro-chemicals that are species-specific, with short active period and low impact on other plants. •Choose appropriate spraying measures and timing to minimize water pollution. •Fence off waterbodies from grazing animals.
Wildlife •Displacement or reduction of wildlife populations by loss of habitat. •Disruption of migratory stop-over points. • Competition for food and water resources. •Increased poaching and killing of wildlife considered as pests or predators to animals, or as human food sources. •Introduction of diseases to wildlife.	•Plan and implement range management strategies (choice of species, animal numbers, grazing areas) that minimize adverse effects on wildlife and avoid excessive competition. •Rehabilitate degraded areas nearby as wildlife habitat. • Investigate management of wildlife ranching which will help protect wildlife resources. •Consider wildlife ranching, tourism and controlled hunting as alternatives to animal production.
Animal Processing •Degradation of surface waters by effluents with high biochemical oxygen demand (BOD), chemical oxygen demand (COD), and suspended and dissolved solids. • Introduction of diseases to humans through bacteria in discharge effluent. •Land degradation through inappropriate disposal of solid wastes on- or off-site. •Damage to aquatic ecosystem and water supply quality from equipment washing detergents. •Human health effects within the facility, Unhygienic work conditions, Spread of animal diseases to humans, Attraction of predators and scavengers.	•Liquid and solid waste disposal or treatment to prevent contamination of water supplies by effluent from tanneries, abattoirs and other animal processing facilities. •Proper management of animal processing facilities to reduce health impacts: - Institute hygienic work practices - Ensure adequate refrigeration - Clean machinery - Implement an operational health and safety programme •Monitor for changes in human health and water quality.

Impacts	Mitigation
Small dams, reservoirs, water ponds/ valley tanks Sub-projects	
Human Environment •Loss of productive land (e.g. agriculture, grazing, forestry). •Displacement of people and families. •Loss of local livelihoods. •Reduction of water available to downstream water users. •Dam failure risk (for Small and Low-Risk Dams)	•Consider alternatives to a new dam and reservoir, for example: - Upgrading and renovating existing water supply and irrigation systems - Alternate locations and/or dispersed, smaller dams in less sensitive areas - Watershed improvement program to enhance retention of precipitation in soils (see below) •Compensate for taken land and structures, and resettlement (including re-housing, re-establishment of livelihood activities, water and sanitation, training). •Avoid areas of significant economic or cultural value to local people. •Implement catchment conservation activities. •Ensure that downstream water users (e.g. water supply, irrigation, livestock watering) are partners in planning the dam and mitigation/compensation measures. •Undertake site specific ESIA/ ESMP to inform the design and confirm that there will be no or negligible risk of significant adverse impacts as a result of potential failure of the dam structure to local communities and assets, including assets to be financed as part of the proposed project. •Maintenance of environmental flow reserves for the river to retain water in reservoir during drought, ensure that water retention in dam is controlled to ensure that adequate reserve is left to flow downstream for users. •Dam safety measures designed and supervised by qualified engineers in accordance with Good International Industry Practice (GIIP) will be adopted and implemented. •Include emergency spillway and low-level outlets

Impacts	Mitigation
	•Train and enhance capacity of MAAIF on Dam Safety management. •If necessary, institute dam safety panel, develop a dam safety plan and proper Standard Operation Procedures for operation and maintenance for dam infrastructure.
Human Health •Creating habitats for disease carriers such as mosquitoes and snails Limit. •Increases in water-related diseases such as malaria, schistosomiasis (bilharzia), onchocerciasis (river blindness), dysenteries, fevers and worms.	•Assess the ecology of disease carriers in the watershed. • Employ suitable prevention and mitigation measures, including education of local people and construction workers, e.g.: - Ensure all construction sites, borrow pits and quarries are properly drained - Finish and manage reservoir margins for proper drainage - Vary the reservoir water level - Proper design and operation of dam spillways and gates (timing and volume of discharges) •Monitor disease and public health indicators, during and after construction, and take corrective measures (e.g. education, medical) as needed.
Natural Environment (General) •Loss of natural areas, important habitats, and number and variety of species (biodiversity). •Threatened water source(s) for the reservoir (e.g. siltation, evaporation losses).	• Avoid: - Protected natural areas - Critical habitats or areas with significant biodiversity (e.g. wetlands) • Assess state of the watershed, and plan and implement appropriate water conservation program, perhaps including: - Watershed improvement measures (e.g. revegetation, reforestation, afforestation, controlled use) to reduce erosion and increase infiltration of precipitation. - Training to ensure effective tending of improvement measures (e.g. watering, protection from grazing). - Agricultural methods that maximize soil moisture conservation (e.g. mulching, terracing, contour cropping, maintaining soil cover).

Impacts	Mitigation
Aquatic Environment – River/Stream •Reduced or altered timing, quantity, quality and temperature of downstream water flows. •Altered rates and locations of bed and bank erosion and deposition downstream. •Reduction in quantity and quality of aquatic habitats and fish production. •Reduction/loss of downstream subsistence or commercial fisheries. •Blockage of fish migration and access to upstream spawning areas by dam; decreases in fish populations downstream.	•Ensure thorough analysis and assessment of potential impacts to develop and plan, as part of the project, an acceptable combination of: - water releases required to sustain habitats and fish production - habitat improvements to sustain production and fisheries - development assistance to people dependent on reduced fisheries •Consider alternate dam locations and possibility of fishway around dam.
Aquatic Environment – Reservoir •Conversion of aquatic species in reservoir from those that require flowing water to those that need still water, and resulting effects on fishing activities. • Deterioration of reservoir water quality. •Deterioration of reservoir water from: - Decomposition of flooded vegetation, - Nutrients in eroded soils and agricultural fertilizers.	•Assess fish production potential of reservoir, and implement feasible measures to enhance production (e.g. habitat design, stocking, aquaculture). •Provide development assistance to local people to benefit from reservoir fisheries. •Provide areas for bathing, laundering, and animal watering away from reservoir. •Ensure local sanitation facilities do not release pollutants to surface or groundwaters reaching the reservoir. •Prevent livestock access to reservoir. •Clear vegetation from reservoir area before flooding. •Train farmers in soil and water conservation, and in appropriate use of fertilizers.
Terrestrial Environment •Raised water table around the reservoir, waterlogging and salinization of soils, and lowered agricultural productivity.	•Project support to improve agricultural land drainage and production around reservoir. • Develop tolerant fodder and crop species around reservoir.
Small Scale Irrigation Schemes Sub-projects	
Human Environment •Upsetting existing social and economic community management relationships, land tenure system, security of livelihoods, and gender division of labour. •Conflicting demands on surface or groundwater supplies.	•Avoid sites that require: - Resettlement - Displacement of other important land uses, or - Encroachment on historical,

Impacts	Mitigation
	cultural, or traditional use areas • Locate and size irrigation schemes: - Where water supplies are adequate and the scheme will not conflict with existing human, livestock, wildlife or aquatic water uses, especially during dry seasons - So that withdrawals do not exceed "safe yield" from groundwater resources •Encourage crops with lower water demands. •Ensure effective community organization for equitable distribution of water.
Human Health •Creating habitats in canals and ditches for disease carriers such as mosquitoes and snails responsible for spreading diseases such as malaria and schistosomiasis (bilharzia). •Spreading infection and disease through the inappropriate use of irrigation canals for water supply, bathing or human waste disposal. •Health effects from improper storage, handling, use or disposal of agro-chemicals (pesticides, herbicides).	•Assess ecology of disease carriers in the project area, and employ suitable prevention and mitigation measures, e.g.: - Site and orient water works, fields and furrows to ensure adequate natural drainage of surface water - Use lined canals and pipes to discourage vectors - Avoid unsuitable gradients, and creating stagnant or slowly moving water - Construct straight or only slightly curved canals - Install gates at canal ends to allow complete flushing - Ensure adequate sub-surface drainage of fields - Avoid over-irrigation - Maintain water works, and clear sediment and weeds, regularly •Provide/ensure alternate facilities for domestic water supply, bathing and human waste disposal. •Provide education and training for farmers and other community members on: - Irrigation health risks - Efficient use of irrigation water - Maintenance of irrigation and drainage works - Proper storage, handling, use and disposal of agro-chemicals - pest management

Impacts	Mitigation
	•Monitor disease/infection occurrence and public health indicators, and take corrective measures (e.g. physical changes to irrigation scheme, education, medical) as needed.
Soils • Waterlogging • Salinization • Erosion	• Thoroughly assess project soils and their management needs under irrigated agriculture • Apply water efficiently. Consider drip or dawn/evening sprinkler irrigation. • Install and maintain adequate surface and sub-surface drainage • Use lined canals or pipes to prevent seepage • Avoid waterlogging (above) • Mulch exposed soil surfaces to reduce evaporation • Flush irrigated land regularly • Cultivate crops having high tolerance to salinity • Design and layout of furrows appropriately • Avoid unsuitable gradients • Avoid over-irrigation • Install sediment traps in fields and canals to capture sediment for return to fields • Minimum tillage, contour cropping, terracing and other methods of conserving soil moisture
Water Bodies and Aquatic Ecosystems • Loss or damage to wetlands and their environmental services, biodiversity, and ecological productivity Reduced quality of surface and groundwaters receiving excess irrigation water or drainage (nutrients, agro-chemicals, salts and minerals)	I. Avoid: - Locating irrigation schemes on or near important wetlands - Developing irrigation water sources that may reduce wetland water supply - Draining irrigated fields into wetlands • Follow *Soils* mitigation measures (above) to minimize risks of waterlogging and salinization • Use agro-chemicals appropriately (see *Human Health* above) • Prevent surface drainage of fields into nearby water bodies (streams, ponds,

Impacts	Mitigation
	etc.).

Small Dam Safety: Desirable Elements *(Source: Good Practice Note on Dam Safety, WB 2020)*

Governance of Small Dam Safety:
Awareness creation among stakeholders, especially people living within the catchment area: The intended activity The reason for the intervention Scope of works and duration Likely impacts and how they could be addressed The role of various stakeholders in maintaining the facility
Identify and empower the entity responsible for surveillance, maintenance, and operation.
Such entity should be at the lowest appropriate level, ideally at the local level (for example, water user associations).
Establish a regional or national entity responsible for gathering surveillance information and assist the local entity as needed.
Provide access to and disseminate appropriate handbooks or manuals for planning and construction of small dams.
Train responsible staff to enhance their understanding of safety-related tasks and to serve as “trainers of trainees” for the community-level trainings that they may deliver.
Training should cover at least the following essential elements: The causes of dam failure and their possible effects The emergency response procedures and the chain of command The notification flowchart and the roles and responsibilities of relevant stakeholders
Prepare a concise and clear description of duties, including checklists.
Periodic training of surveillance staff.
Allocate budget to remunerate surveillance staff.

<table>
<tr><th>Impacts</th><th>Mitigation</th></tr>
<tr><td colspan="2">
<table>
<tr><th colspan="3">Local Communities' Potential Contributions to Small Dam Safety</th></tr>
<tr><th>What can communities do?</th><th>With basic training</th><th>With some more training</th></tr>
<tr><td>Surveillance</td><td>✓</td><td></td></tr>
<tr><td>Routine observations</td><td>✓</td><td></td></tr>
<tr><td>Seepage measurements (especially for long embankments)</td><td></td><td>✓</td></tr>
<tr><td>Basic maintenance tasks</td><td></td><td>✓</td></tr>
<tr><td>Respond to simple and clear emergency protocols</td><td></td><td>✓</td></tr>
</table>
</td></tr>
<tr><th colspan="2">Small Scale Aquaculture Sub-projects</th></tr>
<tr><td>• Land use conflicts

• Water supply conflicts:
– Social and economic disruptions to existing community water management practices and relationships
– Conflicting demands on surface or groundwater supplies</td><td>I. Avoid project sites that require:
- Resettlement
- Displacement of other important land uses, or
- Encroachment on historical, cultural, or traditional use areas
• Encourage use of existing depressions, hollows and ditches
• Limit areas converted to ponds
• Good pond design, construction and maintenance to avoid premature abandonment and digging of new ponds
• Ensure adequate community participation in the planning and operation of the project
• Site ponds to avoid disrupting existing/traditional uses of water (e.g. drinking, washing, animal watering)
• Develop ponds with other activities to combine water uses (e.g. pond water used for irrigation of crops)
• Develop supply sources
– Where water quantities are adequate and the project will not conflict with existing human, livestock, wildlife or aquatic water uses, especially during dry seasons So that withdrawals do not exceed "safe yield" from groundwater resources.</td></tr>
<tr><td>Human Health</td><td>• See Water Quality below</td></tr>
</table>

Impacts	Mitigation
• Illness or disease due to pollution of water sources from aquaculture wastes • Creating habitats for disease carriers such as mosquitoes and snails, and increasing the prevalence of water-related diseases such as malaria and schistosomiasis (bilharzia)	• Assess ecology of disease carriers in the project area • Monitor disease occurrence and public health indicators, and take corrective measures as needed (e.g. change project works, improve maintenance, education, medical) • Employ suitable prevention and mitigation measures, including education of local people, e.g.: – Good surface drainage around project water supply, ponds and drainage works – Use fish species that feed on disease carriers
Terrestrial Environment • Loss of ground cover and erosion at project site • Depletion of local fuelwood to dry fish	• Restrict area cleared for ponds • Construct ponds during dry season • Stabilize exposed soil with grasses and other ground cover • Ensure good drainage and erosion control around ponds • Careful project planning and management to ensure sustainable source of fuelwood • Consider the need for a small, complementary forestry project (see *Community Forestry* resources sheet)
Water Quality • Pollution of surface waters with aquaculture wastes	• Keep fish densities at moderate levels to reduce disease risk and need for antibiotics • Pump air through the water to speed up decomposition • Release pond water into water body with adequate dilution and dispersal capability • Dilute pond water prior to release • Time releases with period of high-water levels or flows • Use shorter retention time of water in ponds – i.e. more frequent exchange and flushing of pond water • Consider using pond bottom sludge as agricultural fertilizer if properly decomposed and non-toxic
Aquatic Environments	• Ensure adequate pollution control (see

Impacts	Mitigation
• Deterioration of water quality from aquaculture discharges causes contamination or decline of aquatic habitats and resident species • Loss of wetlands, especially mangrove forests • Accidental or deliberate release of aquaculture stock leads to decline in wild species important for local food supply or restocking and improvement of domestic stock	*Water Quality* above) • Site project well away from wetlands • Design project features to prevent disturbing water flows to and from wetlands (e.g. flow regulating works, access road crossings on trestles or pilings) • Enhance or protect other nearby wetlands to offset losses at project site • Use local, wild species rather than introduced species as seed stock • Ensure aquaculture stock is kept healthy
Effects of the Environment on the Project • Contamination of aquaculture operations, and deterioration of culture environment, from poor source water quality due to: – Pollution (e.g. pesticides, heavy metals) – Suspended sediments from upstream erosion – Nutrients from agricultural run-off and livestock, detergents, sewage	• Analysis of source water quality and threats • Careful location of the project within the community and watershed
Community Forestry Sub-Projects	
Human Environment • Displaced human settlements • Conflicts over: – Land tenure and use (legal or illegal) – Security of local and traditional livelihoods, and cash income generation Disruption of sites of cultural, religious or historical importance	• Avoid areas that require significant or involuntary resettlement • Provide compensation for resettled families and lost livelihood opportunities (e.g. cash, in-kind, employment, training) • Avoid existing land use areas that are economically productive or important for subsistence or traditional livelihoods • Consider use of already cleared or barren lands for tree planting • Consider sites currently used unsustainably (e.g. agriculture, grazing) • Plan and operate the forest to ensure an equitable distribution of benefits to all community members, and to not exacerbate economic disparities within the community • Account for differing tree product needs between women and men • Provide for intercropping, agro-forestry and other measures that will accelerate the flow of benefits to, and support of, a range of local people • Train and use local labour in the

Impacts	Mitigation
	development and operation of the forest • Avoid such sites, or incorporate them in the project sensitively and to local people's satisfaction
Terrestrial Environment • Loss of natural areas, important habitats, biodiversity • Unsustainable forest production • Soil Erosion	• Avoid infringing on: – Protected natural sites, watersheds and wilderness areas – Critical wildlife habitats or areas with significant biodiversity (e.g. wetlands) • As much as possible, use a variety of multipurpose and fast-growing indigenous tree species to enhance: – Effective use of site micro-climates and soil conditions – The diversity and flow of benefits to local people – Soil and water conservation – Resistance to significant outbreaks of disease and pests – Wildlife habitat and species diversity • Draw upon local cultural knowledge and values in planning and operating the forest • Adapt imported technology (e.g. erosion control, forest management and harvesting) to local conditions, rather just adopt it • Use low impact equipment and methods for forest management and harvesting, and minimize skid trail distances • Select sites where the benefits from the new forest can help reduce illegal or unsustainable uses of nearby forests • If a heavy reliance on cash crops is anticipated, ensure that a thorough market analysis is carried out during project planning • Avoid areas of fragile or unstable soils/slopes • Avoid any project activities within 20-40 metres of streams, ponds, etc. unless they are for rehabilitation and conservation of the riparian zones

Impacts	Mitigation
	• Leave existing grass/shrub cover on lands that are very steep or have shallow soils • Use techniques such as bunding to strengthen control of surface water flows and erosion, and enhance infiltration • Harvest trees in small, unconnected blocks to minimize exposed soils and enhance opportunities for natural regeneration from adjacent forest • Road and track development (also see *Rural Roads* resources sheet): - Construct during the dry season - Keep gradients low but sufficient for natural drainage - Locate as far away from waterbodies as possible - Leave vegetated strips along roadsides, and reseed disturbed areas - Coordinate development schedule with overall plan for forest development and operation
Water Quantity and Quality • Reductions in down-slope water supplies • Pollution of groundwater, and of surface waters and habitats	• Avoid watercourses • Retain existing tree and grass/shrub cover, and harvest selectively, sustainably and carefully, where down-slope water supply is a critical concern • Avoid overusing fertilizers, herbicides and pesticides • Avoid any use near waterbodies
Rural Roads Sub-Projects	
Human Environment • Negative social and economic effects on local people and communities, such as: - Unplanned commercial development - Demand for local public infrastructure and services increases beyond existing capacities - Disruption of traditional lifestyles • Induced population movements and natural resource exploitation activities, due to improved access (e.g. conversion of forest to pasture, or of sustainable land use to unsustainable, short-cycle cropping; illegal or unsustainable hunting)	• Work with affected communities to anticipate and plan for enhanced access to and demand on local public infrastructure and services • Provide project funds to strengthen local public infrastructure and services (e.g. health clinics, markets, schools) • Avoid creating congested and unsafe road conditions at intersections, and in villages and towns
Human Health	• Comprehensive community participation

Impacts	Mitigation
• Social disruption during construction (e.g. enhanced transmission of STDs and TB) • Creation of stagnant water in construction borrow pits and quarries, and on road sides, that breed disease carriers • Health risks during road use due to herbicides used to control road-side weeds	in construction planning and management • Education on avoiding communicable diseases • Assess ecology of disease carriers in road corridor, and employ suitable mitigation measures (e.g. proper drainage of construction areas and road sides, effective road maintenance) • Minimize use of road-side herbicides
Soil and Vegetation • Loss of natural areas, important habitats, biodiversity • Landslides, slumps and slips • Increased soil erosion leading to sediment in runoff and, possibly, gully formation from: – Construction activities such as grading, excavations, and borrowing/quarrying – Inadequate design of culverts and drainage controls – Inadequate maintenance of road surface, ditches, borrow/quarry sites, and drainage and erosion control measures	Avoid infringing on: – Protected natural sites and wilderness areas – Critical habitats or areas with significant biodiversity (e.g. wetlands) – Areas of soil, slope or geological instability – Unstable river crossing sites Design: – Use surface drainage controls and mulch on vulnerable surfaces and slopes – Size and locate roadside drainage and culverts to handle maximum anticipated flows – Line receiving surfaces with stones or concrete – Locate and design borrow/quarry sites for erosion control during road construction *and* future maintenance operations Construction: – Limit earth movement and soil exposure to the dry season – Balance cut and fill for minimum deposition of earth – Provide sedimentation basins – Resurface and revegetate exposed surfaces Ensure proper and timely maintenance of erosion control and drainage measures along the road *and* at borrow/quarry sites
Surface and Ground Water • Disruption of natural surface and subsoil drainage patterns, especially in flood-prone or wetland areas	– Minimize soil compaction and time that soil surfaces are exposed – Provide adequate surface drainage

Impacts	Mitigation
• Increased runoff from road surface • Contamination by spills oil, fuels and lubricants from construction equipment	control for both construction and operation – Size and place culverts and bridges correctly – Collect and recycle used lubricants – Establish measures to avoid accidental spills, and contain them if they do happen
Aquatic Environments Soil erosion leading to: – Increase in the turbidity of surface water courses – Temporary or permanent covering of riverbed organisms and habitats • Watercourse and drainage blockages at culverts and bridges • Erosion of embankments and roadside slopes	• Follow *Soil and Vegetation* and *Surface and Groundwater* mitigation measures above • Install culverts and bridges in dry season • Ensure adequate maintenance of: – Culverts and bridges – Roadside slopes, drainage control measures and vegetation – Road surface
Animals and Wildlife • Blocked animal and wildlife movements • Animal/wildlife road kills	• Avoid fencing across known animal and wildlife movement routes • Animal/wildlife crossing warnings, nighttime speed limitations or perhaps closures
Management of Wastes Generated by the Project Activities	
Contamination of Soil, Water, and Air by waste produced	• Determine the volumes of waste materials by category (e.g. organics, hazardous materials, burnables, recyclables, etc.), and design the management system to deal with each waste category separately as required. • Training and awareness on Safe Waste Disposal, importance of a healthy environment and on the principles and values of waste reduction, recovery and recycling to reduce waste disposal requirements and extend the life of disposal site(s) • Assess nature and quantity of hazardous wastes, and provide for separate collection and disposal • Encourage home composting of organic wastes • Where recycling is practicable, have households' separate recyclables from

Impacts	Mitigation
	other waste *before* collection • Site selection is critical. Locate project site(s) (e.g. landfill, incinerator) with buffer zones from other land uses and waterbodies to minimize land and water resource impacts, aesthetic impacts, and health risks • Minimize handling of waste, and maximize containment • Enclose vehicle unloading and refuse sorting (for recovery and recycling) areas, as well as good ventilation and dust suppression • Contract NEMA approved waste collector & transporter. Waste oil disposal to be undertaken by NEMA approved oil companies or agents.
Cross-cutting Environmental and Social Impacts and Mitigation Measures	
Soil Erosion	• Site planning to ensure that the maximum amount of existing vegetation is left in place during the excavation. • Suitable erosion and sediment controls measures should be designed and implemented to construction of structural soil conservation works such as contour, graded and diversion banks and drop structures together with sediment control dams. • The use of cover crops and/or organic ameliorants will reduce soil dispersion and surface crusting thereby reducing surface runoff and increasing infiltration which will subsequently reduce erosion and sedimentation. • Stockpiled soils should be re-vegetated as soon as possible to minimize loss of soil quality. Construction of sediment control dams is recommended in order to capture sediment laden runoff so as to improve water quality. • Minimize need for cut and fill through building placement on slopes no greater than 7%.

Impacts	Mitigation
	• Backfill borrow pits where appropriate overburden aggregate is available and landscape construction scars; locate new pits far from lodging facilities. • Incorporate in culvert design an entrance pool and discharge exit that eliminates bank erosion. • Construction of all drainage structures (i.e. culverts, sediment basins, and catch drains) will be carried out as early as possible. • Disturbed fertile topsoil will be covered and protected with vegetation, mulch, or erosion-resistant material. • The area of soil exposure and disturbance will be limited to the construction site only. • The topsoil and subsoil will not be mixed during the earthworks. Where soils are vegetated stripped topsoil will be stored and preserved to the maximum extent possible to be re-used during re-vegetation of excavated areas, cut and embankment areas. • The surface stockpiled soil should be left in as coarsely textured condition as possible to promote infiltration and minimise erosion until vegetation is established and to prevent anaerobic zones forming. • Soil striping should not exceed the prescribed depths. • All topsoil stockpiles will be in suitable areas to reduce disturbance and potential for erosion. • Wind erosion will be prevented via fencing and covering. • Topsoil should be spread, treated with recommended ameliorants (if required) and seeded in one. • Consecutive operation should be conducted to reduce the potential for topsoil loss to wind and water erosion. • Assessment of weed infestation on stockpiled soils should be undertaken to determine if individual stockpiles require herbicide application prior to topsoil spreading to avoid spreading weeds and invasive plant species.

Impacts	Mitigation
Soil Contamination	• Any spillages from handling fuel and other hazardous liquids will be immediately contained on-site and the contaminated soil will be removed from the site for suitable treatment and/or disposal. • Leave a continuous buffer of vegetation around the site perimeter to intercept any sediment that might be transferred off site via surface water flow. • Limit heavy earthworks in fast flowing areas and in rain. • Pro-active risk assessments will be conducted based on the potential for the presence of soil contamination on the ROW of the Roads. These risk assessments should follow best practices to assess the potential of contamination. • A methodology will be set up for identifying and dealing with contaminated materials when unexpectedly encountered during construction, including the appropriate temporary storage of contaminated soils until further steps can be agreed upon with the local authorities. The temporary storage must be such that the contaminated materials are placed in appropriate metal skips or other containers with sealed bottoms and covers to prevent runoff and wind dispersion. • Construction workers will be trained to spot signs of contamination during earthworks. Any contaminated soils/wastes encountered during construction must in any case be reported to the Project Env.Spec and to local responsible authorities and further measures conducted as agreed with the authorities and local enterprises. • Topsoil should be maintained in a slightly moist condition during stripping. Material should not be stripped in either an excessively dry or wet condition to avoid affecting the soil structure and associated properties.
Loss and Disturbance of Tangible and Intangible cultural heritage	• Alternative alignment or special

Impacts	Mitigation
	measures to preserve cultural sites of importance to attached persons/communities. • Special measures such as relocating cultural sites in consultation with community. • Chance Find Procedure provided in this ESMF will be customized and adopted to each applicable subproject (with earthworks/excavations) and workers will be trained on it's protocol, so that any potential artefacts or findings during the construction works can be protected and archeological sites can be identified and zoned based on a clear methodology. • Sociologist to train workers regarding cultural norms of the surrounding communities so that they are aware of the local traditions and ensure that no disrespect of local traditions occurs. • Training workers on their general CoC that would be developed specifically for this project, in addition to the general CoC that any visitor to project sites has to be trained on. • Installing signs where cultural heritage sites are located to increase awareness for their protection.
Habitat Degradation	• Erosion control measures to minimize in-stream turbidity and deleterious siltation upon the construction of road chokes and irrigation infrastructure. • Plan restoration of benthic habitat based on area and composition (site specific). • It is recommended that bird counts be undertaken periodically (dry and wet seasons) to establish trends in numbers of IUCN threatened species and overall diversity. This will serve as a good indicator of the quality of environment and well as standards of management practices. • Release compensation flow downstream for the conservation of microflora, aquatic insects and fish in the dewatering zone should be within 10-20% of the regular flow.

Impacts	Mitigation
	• Design road crossings to streams to divert road surface runoff and ditch flow before the road reaches the stream so that the road does not become a point source for sediment influx. • There should be regular monitoring on septic tanks and entire sewage systems so as to detect in time any leakages.
OHS Impacts	• Train staff in occupational health and safety risk management and emergency response, administer all requisite PPE and post safety signage. • Conduct regular hazard analysis to determine the correct PPE needed and require PPE use. • For construction sites, include safety signage to remind workers regarding safety measures, etc. • Development of a Site Emergency Preparedness and Response Plan (EPRP) to define procedure for fire response, rapid clean-up in the event of accidental spills or leaks, to protect soil and groundwater. • Good Practice for OHS Management o Create a culture of positive reinforcement; don't just react to things that have gone wrong. Share safety information across organizational boundaries through activities such as occasional interdivisional toolbox sessions. o Balance formal and informal safety training requirements (i.e., certified trainers vs. local experts who are not yet certified to train). o Help workers know their physical limitations and emphasize the role fitness plays in safety. o Encourage managers to support safe work practices. o Daily toolbox should be given to workers in order to share any information about OHS. • Strict adherence to PPE policy and adoption of penalty system. • Sufficient number of OHS supervisors should be assigned in order to minimize the breaching of OHS

Impacts	Mitigation

	requirements.
	• Require two-person lifts for heavy and cumbersome items.
	• Training
	  o Conduct safe lifting training
	  o Train workers on the benefits, limitations, use, and care of PPE.
	  o Train all workers on first aid kit usage.
	  o Train all workers on virus infection management (COVID 19).
	  o Training on hazardous works such as work at heights, work in confined spaces like excavation works, trenching processes, electrical & welding works, etc.
	• Ensure adequate measures in place to limit spread of infections and viruses.
	• Provide health insurance for workers and basic first aid amenities.
	• Sensitize workforce to HIV/AIDS prevention and treatment.
	• Ensure hygienic and safe environments for workers, and adequate sanitation facilities.
	• The contractor should submit a Job Hazard Analysis for all activities on site. An OHS plan/Manual for risk management specific to the site and the foreseen activities, and following the risk control hierarchy, should be submitted.

Health, Accidents and Security Impacts	• Ensure adequate information-sharing and collaboration with the local authorities. • MAAIF should take responsibility for handling of grievances triggered by the project in the community. • Development and implementation of a Traffic Management Plan (including routes and alternative routes, truck movements, transport of workers, and short-term closure of roads). • MAAIF together with the local authorities should plan for the provision of communal sanitation facilities to take care of the job seekers and camp followers. • MAAIF should ensure that the

Impacts	Mitigation
	stakeholder engagement plan is adequately adopted and implemented. • SOP Fire Management Plans to be enforced and contractor workers to be made aware of their procedures. • Adequate waste management mitigation measures as mentioned previously. • Adequate pollution prevention as mentioned previously. • Develop and implement procedures to avoid or minimize the transmission and spread of COVID-19 that may be associated with the influx of temporary or permanent contract-related labour. • The mitigation measures identified under the sections on noise, air quality, waste management and traffic deviation, will all minimize the potential negative impacts for communities. • Provide adequate health care to project workers to avoid adding additional pressure on the existing health facilities in project areas. • The construction sites to be fenced and guarded in locations closed to border areas in order to prevent any unauthorized access to the site.
GBV	• Ensure that the Code of Conduct and corresponding training concerning commitment of labour towards the community and the different behaviour that should be avoided emphasizes zero tolerance of gender-based violence (GBV) i.e. sexual harassment, sexual exploitation and sexual abuse. • Apply penalties to workers violating the Code of Conduct (Strict policy). • The contractor to prepare an awareness session/training on GBV issues for workers. • The contractor to ensure all available capacity building trainings are accessible to both male and female workers. • Implement all facets of the established grievance mechanism, ensuring anonymous channels are available. • Conduct ongoing consultations with

Impacts	Mitigation
	women and girls only that is understandable and culturally appropriate (keep identities anonymous). • Establish a grievance mechanism that is sensitive to gender by assigning a female SWO in case of GBV incidents. • Apply the full requirements related to operating the grievance mechanism including anonymous channel. Ensure grievance mechanism that is survivor centred. • Workplace environment including the ergonomics of tools and equipment should be gender friendly.
Child Labour	• Prohibit hiring of child labour at all times and in all subproject activities. • Engage District Labour Officers to guide on hiring of labour and monitor compliance with the National Laws on Child Labour.
Increased transmission of communicable diseases and STDs	• Ensure that the Code of Conduct and corresponding training concerning commitment of labour towards the community and the different behaviour that should be avoided emphasizes zero tolerance of gender-based violence (GBV) i.e. sexual harassment, sexual exploitation and sexual abuse, STDs. • Ensure that the Code of Conduct and corresponding training concerning commitment of labour towards the community and the different behaviour. • Reduce labour influx by tapping into the local workforce. • Establish a grievance mechanism that is sensitive to gender by assigning a female SWO in case of GBV incidents. • Sensitize workers on HIV/AIDS, Undertake voluntary counselling and testing, and provide condoms to workers free of charge.
Temporary Labour Influx	Management of Temporary Labour Influx

Impacts	Mitigation
	impacts during construction requires **strict adherence to code of conduct** requirements for the workers and ensuring they are adequately trained/sufficiently made aware of local norms and culture. • Ensure adequate information-sharing and collaboration with the local authorities. • Establish Grievance Redress Committees, train them and support their functionality. • Contractors to provide for their own workforce, including health care, water and sanitation, camps, etc. • MAAIF should ensure that the stakeholder engagement plan is adequately adopted and implemented. • Establish transparent recruitment procedures to avoid camp followers in form of jobseekers. • Priority for recruitment to be given to local residents for less specialized services. • Recruitment procedures to be shared with the local authorities for further dissemination. • Opportunities for sub-suppliers and sub-contractors should be awarded to local firms which in turn employ local labour. • Conduct public health campaigns to surrounding communities addressing issues of behavioral change, water and sanitation, Malaria, HIV/AIDS, etc. • Develop and implement procedures to avoid or minimize the transmission and spread of COVID-19 that may be associated with the influx of temporary or permanent contract-related labour. • A code of conduct for workers should be developed, all workers should be trained on. All types of inappropriate behavior of workers should be identified, and the importance of adhering to the code of conduct is emphasized. • Apply penalties to workers violating the code of conduct. • It includes workers 'adherence to the

Impacts	Mitigation
	CoC within the workplace and places of residence as well, in a way that ensures that no negative impacts or social conflicts occur between workers and residents. • Regulate access to the project site via security measures.
Road Traffic and Transportation	• Conduct a traffic assessment study and develop and implement a traffic plan, including safety measures. • Dust control measures especially in sections close to schools and health centers (this is not focused on construction site, rather locations where there is sourcing of material near communities). • Signage should be installed in the access roads, including speed control structures such as humps in populated areas. • Erection of warning signage ahead of construction sites and stationing of construction/traffic control personnel where necessary. • Review any complaints related to traffic and accidents. • Ensure vehicle safety and regular maintenance.
Vulnerable Groups	• A code of conduct for workers should be developed, all workers should be trained on. All types of inappropriate behavior of workers should be identified, and the importance of adhering to the code of conduct is emphasized. • Apply the full requirements related to operating the grievance mechanism including anonymous channel. • MAAIF must ensure positive discrimination in job allocation to construction workers whereby women are given responsibility for tasks that are well-suited to the individual woman's capacities, based on their potential in addition to people who identify as vulnerable groups (people with disabilities, elderly where applicable).

Impacts	Mitigation
	• Workplace environment including the ergonomics of tools and equipment should be gender and disability friendly.
Land use conflicts during the establishment of new and/or enforcement of existing land use plans	• Pro-active stakeholder engagement prior to the activity. • Participatory planning with communities. • Integrated land use plans reviewed and ground truthed with respective LGAs and Ministry before approval and implementation.
Economic Displacement	• Prioritize capable locals in recruitment of construction and operational labor. • Source products and ancillary services from local providers. • Promote equal and non-discriminatory opportunities in local employment. • Enhance capacity-building and micro-enterprise development programs to equip local communities for sustainable access to production resources and emerging markets within the tourism and agricultural sectors (especially for community members at risk of losing their markets or having a weakened occupation due to increase in tourism).
Security Risks	• Regulate access to the project site via security measures. • Creating a project zonation system, where certain zones are prohibited for entry by workers and part of their CoC training. • Establish and operationalize Grievance Committees in communities. • Subject Security Personnel to a CoC and Train them regularly on their roles and conduct. • Resident District Commissioners to coordinate and manage involvement of Security personnel in project activities.

5 ESMF PROCEDURES AND KEY INSTRUMENTS TO ADDRESS ENVIRONMENTAL AND SOCIAL ISSUES

This section defines steps, actions and responsibilities for screening potential environmental and social (E&S) issues and classifying risk levels. The classification of each subproject under the appropriate environmental risk category will be based on the provisions of the World Bank ESF ESS1 Assessment and Management of Environmental and Social Risks and Impacts. The screening will also be cognizant of Uganda's National Environment Act N°.5 of 2019, especially Section 113 which provides for Projects Categorization.

High ESRC (WB) requiring Mandatory ESIA (Uganda's NEA 2019): A detailed ESIA study is always required for projects that are in this category. Impacts are expected to be 'adverse, sensitive, irreversible and diverse with attributes such as pollutant discharges large enough to cause degradation of air, water, or soil; large-scale physical disturbance of the site or surroundings; extraction, consumption or conversion of substantial amounts of forests and other natural resources; measurable modification of hydrological cycles; use of hazardous materials in more than incidental quantities; and involuntary displacement of people and other significant social disturbances. The impacts under this category affect broader area than the sites or facilities subject to physical works. **Such subprojects would require a full ESIA.** ***UCSAT project activities are not expected to fall under High Risk Classification.***

Substantial ESRC: The proposed project falls under this risk category since the nature of the project is not expected to be complex, the scope and scale of activities are expected to be large to medium and shall not be undertaken at sensitive locations, and the likely E&S risks are significant but can be avoided and/ or mitigated, with enhanced implementation capacity at national and districts levels. The Substantial risk categorization is appropriate given the geographical scope of 69 districts to be covered by the project, multi-institutional nature and relatively weak district level E&S capacity, coupled with the inherent risks in the broad agricultural activities to be financed. The project also involves construction and/or refurbishment of 6 water supply dams/reservoirs of small/medium scale with inherent health and safety risks, likely impacts of labor influx, sexual exploitation and abuse, gender based violence and risks associated with the use of security forces during project implementation in the Karamoja region.

Moderate ESRC (WB) requiring ESMP/Project Brief (Uganda's NEA 2019): Any project which is likely to have potential environmental and social impacts, which are less adverse than those of High/ Substantial Risk Categories, bearing moderate or low impacts on human populations or environmentally important areas including wetlands, forests, grasslands and any other natural habitat. The impacts are usually site specific, few or none of them are irreversible, and most of them are mitigated more readily than impacts from High/Substantial sub projects. **Although an ESIA is not always required, some environmental analysis is necessary. Such subprojects would require an ESMP.**

Low ESRC (WB) which are exempted from Environmental Assessment (Uganda NEA 2019): These refer to projects that are likely to have minimal or no adverse environmental and social impacts. Beyond screening no further ESA action is required. **No assessment would be required under World Bank requirements and Uganda's NEA 2019 Schedule 11.** ***It should be noted that screening will always be undertaken to qualify the placement of project activities under this classification/ category.*** **The UCSAT**

Project has been assigned Environmental & Social Risk Classification "Substantial" requiring (based on E&S screening) full ESIA, ESMP/ Project Brief for most sub-project activities/ components.

5.1 ENVIRONMENTAL AND SOCIAL SCREENING AND RISK CLASSIFICATION

Environmental and social screening is undertaken to anticipate the likely risks and it facilitates early identification of potential impacts and consequently guide on the needed level and form of assessment that is commensurate with importance of possible impacts. The screening based on World Bank's ESF also establishes a Project's Environmental and Social Risk Classification whereas on Government of Uganda's National Environment Act this establishes the form and level of assessment required.

The classification of each subproject under the appropriate environmental category will be based on the provisions of the World Bank Environmental and Social Framework (ESF), specifically (ESS-1 Assessment and Management of Environmental and Social Risks and Impacts), and in consideration of Uganda's NEA (2019) and ESIA Regulations (2020) and Guidelines. The Bank as per its ESF classifies projects into four classifications: High Risk, Substantial Risk, Moderate Risk, or Low Risk. In determining the appropriate risk classification, the Bank takes into consideration issues such as project type, location, sensitivity and scale; nature and magnitude of potential environmental and social impacts; and the capacity and commitment of the Borrower to manage environmental and social risks and impacts in a manner consistent with the applicable ESSs. In addition, contextual issues are also taken into consideration including but not limited to legal and institutional considerations; nature of the mitigation and technology being proposed, governance structures and legislation; and aspects of stability, conflict or security. The Bank discloses the project's risk classification on their website and in project documents, such as in this ESMF. The risk classification is reviewed by the Bank on a regular basis, including during implementation, and will change the classification where necessary, to ensure that it continues to be appropriate. Any change is disclosed on the Bank's website.

Based on Uganda's NEA 2019, projects are *Categorized* based on the anticipated level and form of assessment (Section 113), largely determined by the following factors among others (Section 5(2) *Principles of Environmental Management*: nature and scale of proposed project or activity; the documented impacts of similar or related projects or activities previously undertaken in Uganda; and the anticipated magnitude of environmental, social, economic and cultural impacts of the proposed project or activity (NEA, 2019 Section 110 (2). Schedule 11 provides list of activities exempted from ESIA, whereas Schedule 4 provides list of activities which require a simplified form of ESIA called a Project Brief (ESMP) in accordance with Section 112 and Schedule 5 provides list of projects or activities that require mandatory detailed ESIA referred to as Environmental Impact Study. NEA defines Project Brief as a summary statement of the likely environmental impacts of a proposed activity. The Tables 5-1 and 5-2 below provide summary explanation of environmental and social attributes under the various risk categories in line with the ESF and closely aligned with the NEA 2019 requirements:

High/Substantial Risk/Full and detailed ESIA –as per Uganda's NEA, these are typically projects with adverse environmental impacts that are *broad, diverse*, *beyond local site, irreversible*; usually entail major resettlement or conversion/degradation of natural habitats; and use of hazardous materials. In line with World Bank's ESF, the projects that entail full and detailed ESIA are classified as High and Substantial Risk projects as on **Error! Reference source not found.**.

Table 5-1: Summary of High and Substantial Environmental and Social Risk Classification (ESRC)

Aspect	High Risk	Substantial Risk

Aspect	High Risk	Substantial Risk
Project type, location, sensitivity, scale	"Complex large to very large scale in sensitive location(s) ".	"Not as complex; large to medium scale not such sensitive location ".
Nature & magnitude of risks & impacts, available mitigation	Mitigation unproven: unable to entirely address significant risk; high residual value.	Mitigation more reliable: significant risks but possible to avoid or address.
Borrower capacity and commitment	Challenges and concerns about track record regarding E&S issues, significant stakeholder engagement capacity, commitment, track record concerns.	Some concerns about borrower track record, engagement capacity but readily addressed.
Context of risk relevant to ES measures	Significant effects on ability to mitigate risk - significant contextual risks outside project control impacting on E&S performance and outcomes.	Some effects on ability to mitigate risk - known and reliable mechanisms to prevent or minimize, enforcement is weak in some respects, some stakeholder engagement concerns but readily addressed.

Moderate Risk and Low Risk Projects Vs Project Brief/ ESMP projects – These are projects with potential adverse impacts more *limited, fewer, site-specific, largely reversible*, readily and reliably mitigated through known methods. As per Ugandan classification, they are either exempted from ESIA or require a simple form of ESIA, nationally called Project Brief or ESMP. They are likely to have *no adverse environmental impacts, or minimal* and easily mitigated. No EA required, but ESMP may be done to manage specific aspects. In line with the WB-ESF, the projects of this type are classified as Moderate or Low Risk projects, and their specific attributes are summarized on **Error! Reference source not found.**.

Table 5-2: Summary of Moderate and Low Environmental and Social Risk Classification (ESRC)

Aspect	Moderate	Low
Project type, location, sensitivity, scale	"No activities with high potential for harming people or environment; located away from sensitive areas ".	"Few or no adverse risks and impacts.
Nature & magnitude of risks & impacts, available mitigation	Easily mitigated: site specific, low magnitude risks.	Nothing to mitigate: - no further assessment after screening.
Borrower capacity and commitment	Sufficient borrower experience, track record, stakeholder engagement capacity.	Minimal or negligible risks to and impacts on human populations and/or the environment

Context of risk relevant to ES measures	No effects on ability to mitigate risk – no contextual risks with effects on E&S performance	Negligible risk.

The UCSAT project has been assigned overall Substantial Environmental and Social Risk Classification: By and large, the project will generate moderate E&S risks and impacts, as described under Section 1.2 (project components), Section 2.2 (Relevant ESSs and requirements), and Section 4 (Potential Impacts and Mitigation). Overall, the environmental and social impacts are expected to be minimal and not adverse, site specific, reversible, can be well identified and readily avoided, minimized, and readily mitigated/ manageable. However, the overall E&S risk is rated Substantial considering the diverse activities to be included in the project, wider geographical coverage with likely cumulative impacts, and inadequate Institutional ESF capacity of the implementing entities, coupled with the inherent risks in the broad agricultural activities to be financed, especially those involving use of agrochemicals, construction and/or refurbishment of 6 water supply dams/reservoirs of small/medium scale with inherent health and safety risks, likely impacts of labor influx, sexual exploitation and abuse, gender based violence and overall risks associated with the use of security forces during project implementation in the Karamoja region. These will be managed through in-depth stakeholder engagement during site specific assessments and development of ESMPs for civil works, Capacity building to strengthen local government and local community organizations will also help to reduce risks. The ESMF has provided guidance on the use of security forces in Annex 10.5. MAAIF will ensure implementation of the developed ESMPs to help avoid significant adverse impacts on the environment and or potentially affected people. Additional E&S staff will be recruited by MAAIF. For this reason, the project is considered to be of **Substantial E&S Risk Classification (ESRC),** and this shall be reviewed and revised during project implementation. Similarly, in line with the NEA 2019, with exception of construction and/or refurbishment of water supply dams/reservoirs of medium scale, the project is composed of sub-projects that typically fall under Schedule 4 (list of activities which require a simplified form of ESIA called a Project Brief (ESMP) in accordance with Section 112.

5.2 ENVIRONMENTAL AND SOCIAL ASSESSMENT PROCESS

The key regulations for environmental and social assessment in Uganda include the National Environment Act (NEA) 2019, the ESIA Regulations, 2020, the EIA Guidelines of 1997 and the National Environment (Audit) regulations, 2006. The National Environment (Environmental and Social Assessment) Regulations, 2020 define the role of ESIA as a key tool in environmental management, especially in addressing potential environmental and social impacts at the pre-project stage. The Regulations apply to: (a) a project or activity for which (i) a project brief is required to be undertaken in accordance with Section 112 and Schedule 4 of the Act; (ii) an environmental and social impact study is required to be undertaken in accordance with Section 113 of the act and Schedule 5 of the Act; (iii) an environmental risk assessment is required under Section 114 of the Act. The regulations define the ESIA preparation process, required contents of an ESIA, and the review and approval process including provisions for public review and comment. The regulations are interpreted for developers and practitioners through the Guidelines for Environmental Impact Assessment in Uganda (1997). The Section 5.3 below illustrates the steps involved during environmental and social assessment and management process as per Ugandan regulations that will lead to the review and approval of subprojects under the UCSAT Project.

5.3 KEY STEPS

The section below illustrates the steps involved during environmental and social assessment and management process as per Ugandan regulations and World Bank ESF that will lead to the review and approval of environmental assessments for the UCSAT Project activities, as guided by the ESMF during implementation.

5.3.1 STEP 1: SCREENING OF ACTIVITIES AND SITES

MAAIF PIU and the respective Districts Implementation Teams (DITs) will carry out scoping and screening of the sub-projects using the Environmental and Social Screening Form (ESSF) in Annex 1. MAAIF PIU will be composed of qualified Environmental (1) and Social (1) Specialists and the District Implementation Teams shall be led by District Production Officer and District Environmental and Natural Resource Officer, working closely with the subcounty extension and community development officers on-ground to undertake E&S Screening of all sub-projects proposed for implementation. The ESSF requires information that determines the characteristics of the prevailing local bio-physical and social environment with the aim of assessing the potential project impacts on it. The ESSF also shall be used to identify the potential socio-economic aspects that will require assessment, mitigation measures and or resettlement and compensation. However, the project shall not involve physical resettlement in any way and subprojects with such requirements shall be excluded from the project (in line with the Exclusion List under Section 5.3.7 and ESSF Part C). Besides the onsite-specific characteristics and scope of project activities, the E&S screening shall take into consideration the preliminary assessments that have been provided in the ESMF under Section 1.2 (project components), Section 2.2 (Relevant ESSs and requirements), and Section 4 (Potential Impacts and Mitigation). Where necessary, the E&S Risk Classification may be adjusted based on the adaptive principle under ESS-1.

5.3.2 STEP 2: ASSIGNING THE APPROPRIATE ENVIRONMENTAL CATEGORIES

a. MAAIF and DITs will then assign the appropriate environmental category to the subproject based on the information contained in the ESSF and the national criteria for categorization. At this stage, the project is classified as SUBSTANTIAL risk based on World Bank's ESF and the Uganda's NEA 2019, explained under Section 5.1 above. Under WB and GoU requirements, and depending the sub-project under consideration/selection, a Full ESIA and/or ESMP/Project Brief suffices. The potential categories, in line with the National Environment Act 2019 and EIA Guidelines are further elaborated here below:
b. Projects are categorized based on the anticipated level and form of assessment, largely determined by the following factors: nature and scale of proposed project or activity; the documented impacts of similar or related projects or activities previously undertaken in Uganda; and the anticipated magnitude of environmental, social, economic and cultural impacts of the proposed project or activity (NEA, 2019 Section 110 (2). Schedule 11 provides list of activities exempted from ESIA, whereas Schedule 4 provides list of activities which require a simplified form of ESIA called a Project Brief (ESMP) and Schedule 5 provides list of projects or activities that require mandatory detailed ESIA referred to as Environmental Impact Study. NEA defines Project Brief as a summary statement of the likely environmental impacts of a proposed project referred to in Section 112. Therefore, based on the nature of project activities described in detail under Section 1.2, and Section 2.2, and since they are implied under respective Schedules of NEA 2019, these shall be screened and where necessary, subjected to a Project Brief (ESMP), and eventual incorporation of various environmental and social aspects under the respective TORs/Documents guiding their implementation. Schedule 11 of NEA 2019 lists activities that are exempted from Environmental Assessments and this includes

among others establishment of fish breeding or nursery areas, construction of fish ponds of size 10m by 20m.

5.3.3 STEP 3: CARRYING OUT ENVIRONMENTAL ASSESSMENT

Given the SUBSTANTIAL risk classification of the proposed project, applicable Full ESIA and/or ESMPs/ Project Briefs shall be prepared during Implementation by consultancy firms registered by NEMA, following the Format/Content provided under Regulation 6 of the ESIA Regs (2020). The TORs for full EISA are required to be approved by NEMA in line with Section 113 and Schedule 5. Such TORs shall be prepared by MAAIF-PIU, reviewed, and cleared by the World Bank before launching the Assessment/s. However, Project Briefs may be prepared by non-NEMA registered persons. A Project Brief doesn't require preparation of ToRs but their approval is done by NEMA, issuing a certificate of approval of environmental and social impact assessment in accordance with Part IV of the ESIA Regulations. According to the National Environment Act, "project brief" means a summary statement of the likely environmental effects of a proposed development referred to in section 112. Unlike the ESIA, a project brief does not require a scoping report and neither submission of terms of reference for approval by NEMA. The Project Brief will for each potential impact include: mitigation measures, monitoring indicators, implementing and monitoring agencies, frequency of monitoring, cost of implementation, and necessary capacity-building. It is possible that after completing the Checklist, the Environmental and Social Specialists at the PIU/MAAIF may recommend that the subproject concerned should be subjected to a full ESIA, and submitted to NEMA for review and decision making. According to Regulation 6 (5) of the ESIA Regulations, a Project Brief is to contain amongst others, the following:

a. the nature of the project in accordance with the categories identified in the Fourth Schedule of the Act;
b. the projected area of land, air and water that may be located and affected, including a map and coordinates;
c. the activities that shall be undertaken during and after the development of the project;
d. the design of the project, activities to be undertaken, including evaluation of alternatives;
e. the materials that the project shall use, including both construction materials and inputs;
f. the possible products and by-products, including waste generation of the project;
g. the of the workforce and the economic and social benefits to the local community and the nation in general;
h. description of alternative resettlement areas for the PAPs, if any, their associated E&S impacts, and plans for compensation to PAPs;
i. plan for stakeholder engagement throughout the proposed project or activity development, including details on how to address potential related grievances, and evidence of stakeholder consultation undertaken;
j. the environmental effects of the materials, methods, products and by-products of the project, and how they will be eliminated or mitigated;
k. an environmental and management and monitoring plan developed in accordance with regulation 46, incorporating climate adaptation and mitigation pan;
l. Any other matter which may be required by the Authority.

In addition to the above, it is currently a practice and requirement by NEMA to include details of stakeholder consultations in Project Briefs. In the immediate term and as part of preparation of the ESMF, this has been limited (not extensive) given the COVID-19 restrictions on public gatherings. But will

be possible in the mid-long term after relaxation of COVID-19 restrictions on public meetings, expected in January 2022.

In case an ESIA/EIS needs to be undertaken for ***HIGH/SUBSTANTIAL*** risk projects, E&S scoping and ToRs for the study will be prepared by implementing agency and reviewed & cleared by World Bank and approved by NEMA. The ESIA/EIS report will identify and assess the potential environmental and social impacts for the planned activities, assess the alternative solutions, and will design the mitigation, management and monitoring measures to be implemented.

For project aspects that entail use of substantial amounts of pesticides (and requiring PMP), affecting Vulnerable and Marginalized Groups (requiring VGMP), having GBV (GBV-MP) aspects, etc, such aspects are mainstreamed into the site specific Project Briefs/ESMPs and no stand-alone instrument is prepared. However, for HIGH/SUBSTANTIAL risk projects, separate PMP is prepared and submitted to NEMA for approval. Though the ESMF provides overall framework guidance, site specific assessments (ESMPs) shall take into consideration applicable provisions based on individual site characteristics and requirements for management of identified E&S aspects. Otherwise, for the rest of the social aspects, they are mainstreamed into the general ESIA process. Where RAP is required, the Lead Government Agency responsible for its review and approval is the Chief Government Valuer under the Ministry of Lands, Housing and Urban Development. Where RAP is required, NEMA will issue ESIA approval with conditions requiring implementation of the RAP, along-side the socio-economic mitigation measures considered as part of the ESIA process.

Suffice it to say Schedule 11 of NEA 2019 lists activities that are exempted from Environmental Assessments and this includes among others Emergency situations and disasters, and as per Section 95 require participation of the Office of the Prime Minister, National Environment Management Authority, the Uganda People's Défense Forces (UPDF), the Uganda Police Force, to mention but a few. In such emergency circumstances, the basic mitigation actions listed under Section 5.3 shall be used to guide project implementation.

5.3.4 STEP 4: PUBLIC CONSULTATIONS AND DISCLOSURE

Public consultation will be initiated during preparation of the Project Brief/ESMP, during scoping and ESIA preparation stages and views of stakeholders (general public and lead agencies) have to be included in the Project Brief (ESMP) and ESIA report. Public consultation is also be an integral part of the process throughout the planning and execution of the project. MAAIF and the respective implementing District Local Governments will interact closely with beneficiary communities, project personnel, government departments, and NGOs, right from the early stages of the project preparation on a continuous and regular basis for developing and implementing the respective project ESIAs. For this purpose, public awareness drives shall be organized by MAAIF and the respective implementing Districts, in close collaboration with NGO's and other social organizations active in the project areas. During the public awareness drives, the project team will ensure that accurate information is given about the project and its possible environmental and social impacts. The opinion/suggestions made by the community/affected groups shall be incorporated in the respective ESIA and ESMPs. After clearance, the assessment reports (PBs/ESMPs and ESIAs/ESIS, etc.) shall be disclosed both in Uganda by Implementing Agency/MAAIF through the daily print media, websites and by the WB through their website.

5.3.5 STEP 5: REVIEW AND APPROVAL

Following internal review of the ESIA/ESIS or PB/ESMP, by the respective implementing agency/MAAIF and clearance by the Bank, these shall be forwarded to NEMA for final review and decision (approval or disapproval). If the Executive Director is satisfied that the subproject will have no significant impact on the environment, or that the assessment (ESIA/ESIS and/or Project Brief/ESMP) discloses sufficient mitigation measures to cope with the anticipated impacts, he may approve the project. The Executive Director of NEMA or his delegated official shall then issue an EIA Certificate of Approval for the project. Implementation of subprojects cannot commence until the environmental and social aspects have been reviewed and appropriate mitigation measures have been adopted. As possibilities of social impacts regarding land acquisition, where necessary, the implementation of subprojects cannot proceed until the resettlement and/or compensation plans have been prepared and implemented after clearance by the Chief Government Valuer in the Ministry of Lands, Housing and Urban Development (MoLHUD).

5.3.6 STEP 6: ENVIRONMENTAL AND SOCIAL MONITORING

Environmental and social monitoring aims at checking the effectiveness and relevance of the implementation of the proposed mitigation measures. Monitoring exercises should be undertaken in sequences and frequencies stipulated in the ESIA/ESIS, PBs/ESMPs, or RAPs. Local Government leaders, District Environment Officers, Community Development Officers as well as NGOs and CBOs will undertake monitoring exercises as required by the National Environmental Act at the District and Community level. The District Environment Officer in conjunction with the District Community Development Officer will monitor the implementation of environmental and social mitigation measures. MAAIF will have the lead role in monitoring to ensure that various project environmental and social obligations are met, and will ensure that the requirement for an environmental and social audit is fulfilled not less than 12 nor more than 36 months after project completion or commencement of operations respectively in line with the National Environment Act and the Audit Regulations of 2006. The monitoring indicators will be developed by MAAIF's project Environmental and Social Specialists based on the mitigation measures and the ESMP. It is critical to note that NEMA has a regulatory and coordinating role in monitoring of compliance with permits, standards, regulations and all approval conditions. The Environmental and Social Monitoring Report (ESMR) is a management tool that shall be developed by during the construction and operation stages of the project, in order to follow up and monitor the implementation of the environmental and social measures identified in the ESMPs. The ESMR contains basic information about the periodic field visits, the persons who visited the project, the environmental and social aspects observed during the site visit, and recommendations for the contractor.

Contractor-related E&S plans shall be prepared by the respective Contractors, building upon ESMP/s prepared for each subproject as part of respective designs that shall be drawn for implementation.

5.3.7 EXCLUSIONS LIST

Throughout project implementation and as part of the assessment process conducted under Section 5.3.7 & Section 5.3.8 above, the Recipient (GoU/MAAIF) shall EXCLUDE the following types of activities as ineligible for financing under the Project in accordance with the Project Environmental and Social Commitment Plan (ESCP):

a. Activities that may cause long term, permanent and/or irreversible (e.g. loss of major natural habitat) impacts or significant conversion of critical habitat as defined in ESS6.
b. Activities that have a high probability of causing serious adverse effects to human health and/or the environment, other than associated with use of pesticides.

c. Activities that may have significant adverse social impacts and/ or may give rise to significant social conflict.
d. Activities that may affect lands or rights of indigenous people or other vulnerable minorities.
e. Activities that may involve involuntary resettlement or land acquisition (other than voluntary land donation) or impacts on cultural heritage.

5.4 OTHER ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT INSTRUMENTS PREPARED FOR THE PROJECT

Environmental and social risks associated with the project will be managed by MAAIF by the preparation of this Environmental and Social Management Framework (ESMF) which contains among others the following instruments: Pest Management Plan (PMP) which also includes waste management measures (Annex 3), Stakeholder Engagement Plan (Seperate), Labor Management Procedures (LMP) (Annex 4), and Gender Based Violence (GBV) Action Plan (Annex 10) as appropriate for the project and Uganda country circumstances. Since the Ik community in Kaabong district and related vulnerable and marginalized groups, such as the Benets and Tepeth, exist in the project area and meet the requirements of ESS7, culturally appropriate community engagement mechanisms have been included in the SEF to ensure meaningful engagement project activities.

5.4.1 PEST MANAGEMENT PLAN

The project will support use of agrochemicals to boost crop and animal production and these will range from pesticides, acaricides, fertilizers, etc. This necessitated development of a Pest Management Plan to ensure a guided acquisition, storage, handling and application of pesticides and other agrochemicals. The plan includes development of comprehensive strategies for handling, transportation, application and disposal of pesticides in compliance with national and international requirements relating to different agrochemicals. To ensure these issues are managed in an integrated manner and ensuring healthy and safe application of pesticides, it was imperative to develop Pest Management Plan (PMP) to guide handling, application and disposal of agro-pesticides in the project activities thereby provide agricultural practices which can reduce problems associated with pesticide usage, following and in compliance with the national legislation (The Uganda Agriculture Chemicals (Control) Act 2006), guidelines, the World Bank's Environment and Social Framework and Food and Agricultural Organization (FAO) Guidelines, International Code of Conduct on the Distribution and Use of Pesticides Guidelines on Management Options for Empty Pesticide Containers, WHO & FAO May 2008, and Good Management Practice Guide and Pesticide Management Measures contained in Annex 3.

5.4.2 LABOR MANAGEMENT PROCEDURE

The Labor Management Procedure has been developed to set the way in which project workers will be managed in accordance with the requirements of Uganda Labor and Employment Laws and World Bank's Environmental and Social Standard 2 (ESS2) –Labor and Working Conditions. The Labor Management Procedures (LMP) apply to project workers including full-time, part-time, temporary, migrant workers, etc. The LMP is applicable, per ESS2 to the project in the following manner:

a. people employed or engaged directly by the Government (including the project proponent/MAAIF and the project implementing agencies) to work specifically in relation to the project *(direct workers);*
b. People employed or engaged through third parties to perform work related to core functions of the project, regardless of location (*contracted workers*). 'Third parties may include contractors, sub-contractors, brokers, agents or intermediaries;

c. People employed or engaged to provide community labor (*community workers*) as that term is identified in paragraphs 34-38 of ESS2; and
d. people employed or engaged by Government's primary suppliers (*primary supply workers*) – are those suppliers who, on an ongoing basis, provide directly to the project goods or materials essential for the core functions of the project identified in paragraphs 39-42 of ESS2.

The Labor Management Procedure (LMP) has been developed to manage labor risks during the implementation of the Uganda Climate Smart Agriculture Project." The LMP has linkages with the ***Pest Management Plan*** **(PMP*)*** which takes care of the safety and health of the workforce before, during and after application of pesticides. The PMP provides measures for workers and community safety, including emergency procedures. Both documents form part of this ESMF and should therefore be used in cross-reference. It is recommended that the key aspects of LMP including those of other E&S instruments, shall be incorporated in the bidding documents and contracts for implementation. Details of LMP are in Annex 4 herein.

5.4.3 DISADVANTAGED, VULNERABLE GROUPS AND GENDER BASED VIOLENCE (GBV) ASPECTS

Project activities can exacerbate exposure of women/girls to GBV and SEA as household stresses and forced changes in livelihood strategies exacerbate existing high rates of GBV. The project will involve the use of some external labour to undertake some infrastructure related activities and to a limited extent may involve the use of Uganda Police Force or the Uganda People's Defence Forces in the Karamoja region to provide security to project staff in areas where cattle rustling is rampant, and this may pose negative impacts on women and girls due to likely SEA, if mitigation actions are not put in place. Generally, military engagement in a civilian community poses risks to the community; such risks would include Gender Based Violence (GBV), Sexual Exploitation and Abuse (SEA) and Sexual Harassment of the civilian community. To mitigate this a rapid risk assessment has been conducted and a GBV action plan developed as part of this ESMF. The GBV Action plan provides details on appropriate means for preventing and responding to violations including reporting, response institutions and ways of resolving the issues. Please refer to Annex 10. A Social Specialist with experience on gender-based violence will be recruited by the project to manage this issue.

The GBV prevention and response action plan details the operational measures that the project will put in place to assess and mitigate the risks of gender-based violence, including sexual exploitation and abuse (SEA) and sexual harassment that are project related, and how they will be integrated over the life of the project. This includes among other things, procedures for preventing and responding to GBV/SEA/SH including managing grievances that might arise. Data from around the world suggests increased risk of gender-based domestic violence during the COVID-19 pandemic. The task team will make use of key service providers (NGOs) offering support, and use Farmer training forum/meetings to sensitize and inform clients and communities, and sensitively and appropriately expand the use of the grievance redress mechanism for addressing the same. Gender based violence (GBV)/ Sexual Exploitation and Abuse (SEA)/Sexual Harassment (SH) assessment would not be necessary as GBV/SEA/SH have been criminalized in Uganda through the National Gender Policy of 1997 and law enforcement mechanisms are in place and operational, up to the lowest administration level. It is a tool to guide and direct the planning, resource allocation and implementation of development programs with a gender perspective. The adoption of the gender policy has facilitated Uganda's gender mainstreaming programs in all sectors of the economy. The Climate Smart Agriculture project has already mainstreamed gender dimensions into its formulation, planning and implementation framework, hence, its compliance with the National Gender Policy for Uganda.

Guidance for Development of Vulnerable and Marginalized Group Management Plan

Vulnerable Group Plans will be prepared once sub-project activities have been identified in areas where VGs are present. This plan will be undertaken as part of identification and management of social aspects following the general E&S screening provided in the ESMF. Based on the Environmental and Social Impact Assessment (ESIA), the project will develop appropriate mitigation measures and livelihood enhancement activities for vulnerable and marginalized groups. A VMGP will address;

a. Aspirations, needs, and preferred options of the effected VMGs,
b. Potential positive and negative impacts on VMGs;
c. Measures to avoid, mitigate, or compensate for adverse project effects;
d. Measures to ensure project benefits will accrue to VMGs;
e. Measures to strengthen the capacity of Local Governments and relevant government departments to address VMGs issues;
f. The possibility of involving local organizations and non-governmental organizations with expertise in VMGs issues;
g. Detailed budget allocations for implementation of VMGMP; and
h. Monitoring framework for VMGMP. MAAIF will submit the VMGP to the Bank for review and approval prior to commencement of project works.

The Vulnerable and Marginalized Groups Management Plan shall be prepared in a flexible and implementable manner, and its level of detail will depend on keys issues and nature of effects to be addressed. The VMGP shall, among other things, include the following elements:

a. A summary of the Social Impact Assessment
b. An action plan of measures to ensure that VMGs receive social and economic benefits that are culturally appropriate, including, if necessary to enhance the capacity of the project implementing agency.
c. Appropriate action plan which includes measures to avoid, minimize, mitigate, or compensate for the adverse effects.
d. The cost estimates and financing plan for VMGMP.
e. Accessible procedures appropriate to the project to address grievances by the affected VMGs' communities arising from project implementation.
f. Mechanisms and benchmarks appropriate to the subproject for monitoring and evaluating, and reporting on the implementation of the VMGs. The monitoring and evaluating mechanisms should include arrangements for the free, prior, and informed consultation with the affected VMGs.

NB: Please refer to the Project's VGMF for detailed guidance on development of VMGP.

5.4.4 OVERALL PROJECT GRIEVANCE REDRESS MECHANISM

Grievance redress mechanisms provide a way to provide an effective avenue for expressing concerns and achieving remedies for communities, promote a mutually constructive relationship and enhance the achievement of project development objectives. It provides a platform for communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). Grievance redress mechanisms are increasingly important for development projects where ongoing risks or adverse impacts are anticipated. They serve as a way to prevent and address community concerns, reduce risk, and assist larger processes that create positive social change. It has been learned

from many years of experience that open dialogue and collaborative grievance resolution simply represent good business practice both in managing for social and environmental risk and in furthering project and community development objectives. The project will therefore operate two grievance mechanisms; (i) Bank based Grievance Redress Service and (ii) Project Based GRM, briefly explained here below.

BANK BASED GRIEVANCE REDRESS SERVICE

The World Bank based Grievance Redress System (GRS) ensures that complaints received are promptly reviewed in order to address project-related concerns. The GRS provides an accessible way for individuals and communities to complain directly to the World Bank if they believe that a World Bank financed project has or is likely to cause harm to the community and the environment which may have adverse effects. The GRS seeks to ensure that grievances are promptly reviewed and responded to, and resolution sought at the earliest of time. Project-level grievance mechanisms remains the primary means through which complaints will be raised and addressed. The WB GRS will facilitate resolution of issues that cannot be resolved at the project level. The GRS also provides opportunity to WB Management Level to provide guidance on how some project issues can be resolved before being forwarded to the Inspection Panel. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org

PROJECT LEVEL GRIEVANCE MECHANISM

When local people present a grievance, they generally expect to receive one or more of the following: acknowledgment of their problem, honest response to questions about project activities, apology, compensation, modification of the conduct that caused the grievance and some other fair remedy. In voicing their concerns, they also expect to be heard and taken seriously. The project level grievance mechanism shall be outlined in the following instruments: ESMF, SEF, VMGF, RPF, and ESIA/ESMPs.

PROCEDURES AND TIME FRAMES

There is no ideal model or one-size-fits-all approach to grievance resolution. The best solutions to conflicts are generally achieved through localized mechanisms that take account of the specific issues, cultural context, local customs, and project conditions and scale. In its simplest form, a grievance mechanism can be broken down into the following primary components:

a. Receive and register a complaint.
b. Screen and validate the complaint.
c. Formulate a response.
d. Select a resolution approach, based on consultation with affected person/group.
e. Implement the approach.
f. Settle the issues.
g. Track and evaluate results.

Learn from the experience and communicate back to all parties involved

Level 1: Local grievance redress committees (LGRC) will be initiated at the village level to record grievances and also help in mediation. This committee will comprise the LC I Chairperson, a trusted village elder, a religious representative, an elected PAP representative, representative of Farmer Group and specific vulnerable group representatives of relevance to the village i.e. women, youth and the disabled. Disputes will be resolved at the village level as far as possible. The project will prioritize use of existing Grievance Redress Structures/ Committees as opposed to forming new ones. In such cases, the project will be introduced to the existing GRCs and taken through the project specific GRM requirements.

Level 2: The Grievance Redress Committee at the Sub County level

This will be established at sub county level to deal with grievances unsettled at the community or farmer groups level. It will comprise of approximately 5 members;

1. The Sub County Chief, Chairperson to the committee
2. The Community Development Officer, Secretary to the committee
3. Secretary for Production, as member
4. A representative of vulnerable groups (women etc.), as member
5. Agriculture extension officer, as member

Level 3: District Level Grievance Redress Committee

This will be established to deal with any grievances unsettled at the Farmer Group or Sub County levels. the GRC at the district will comprise of 7 members;

1. Chief Administrative Officer, shall be the Chairperson to the committee
2. District Community Development Officer, shall be the Secretary
3. Secretary for Production, as member
4. District Production and Marketing Officer, as member
5. District Project Focal Person, as member
6. District Environment Officer, as member
7. District Labour Officer, as member

The PIU through the Social Development Specialist will technically guide the formation and selection of GRCs and continually build their capacities to receive and handle complaints first hand. The Social Development Specialist will be supported by the National Grievance Redress Committee that will be established to handle all referral complaints. The Chairperson of the Village GRC shall have responsibility to liaise with the Sub County Community Development Officer who shall coordinate the functioning of all farmer groups GRCs in the Sub County including documentation and reporting to the district Focal Person. The District Community Development Officer or as designated at the discretion of the CAO shall be the Technical Focal Officer for the GRM. The mechanism will utilize tools and devices such as Logbooks, Complaints Registration Form, E-GRM developed under Agriculture Cluster Development Project (ACDP), telephones, opinion/suggestion boxes, emails, letters, and walk-ins.

The grievance mechanism implementation process is as follows for the project:

a. The Local Grievance Redress Committee (LGRC) will interrogate the PAP/Complainant in the local language and complete a Grievance Form which will be signed by the leader of the LGRC and the PAP/complainant. This will then be lodged in the Grievance Log/Register provided by the Grievance focal Officer;
b. The PAP should expect a response from the LGRC within seven days of filing the complaint. If the issue is not resolved, the LGRC will forward the complaint to the GRC at the Sub County, and accordingly inform the Complainant;
c. The GRC at the Sub County will be given a fourteen-day notice to hold a meeting. Two days after the meeting, the Sub County GRC will call the PAP and LGRC for discussions, feedback and resolution. The resolution will be presented to the PAP in written form within the same day of the meeting. If there is no resolution to the grievance, the GRC at the Sub County and the PAP shall then refer the matter to the GRC at the District level;
d. The GRC at the District will be given a fourteen-day notice to hold a meeting. Two days after the meeting, the GRC will call the PAP and LGRC for discussions and resolution. The resolution will be presented to the PAP in written form within the same day of the meeting;

e. If there is no resolution to the grievance, the GRC at the district level and the PAP shall then refer the matter to the District Land Tribunal for land-related issues and to MAAIF head office for all other grievances; and

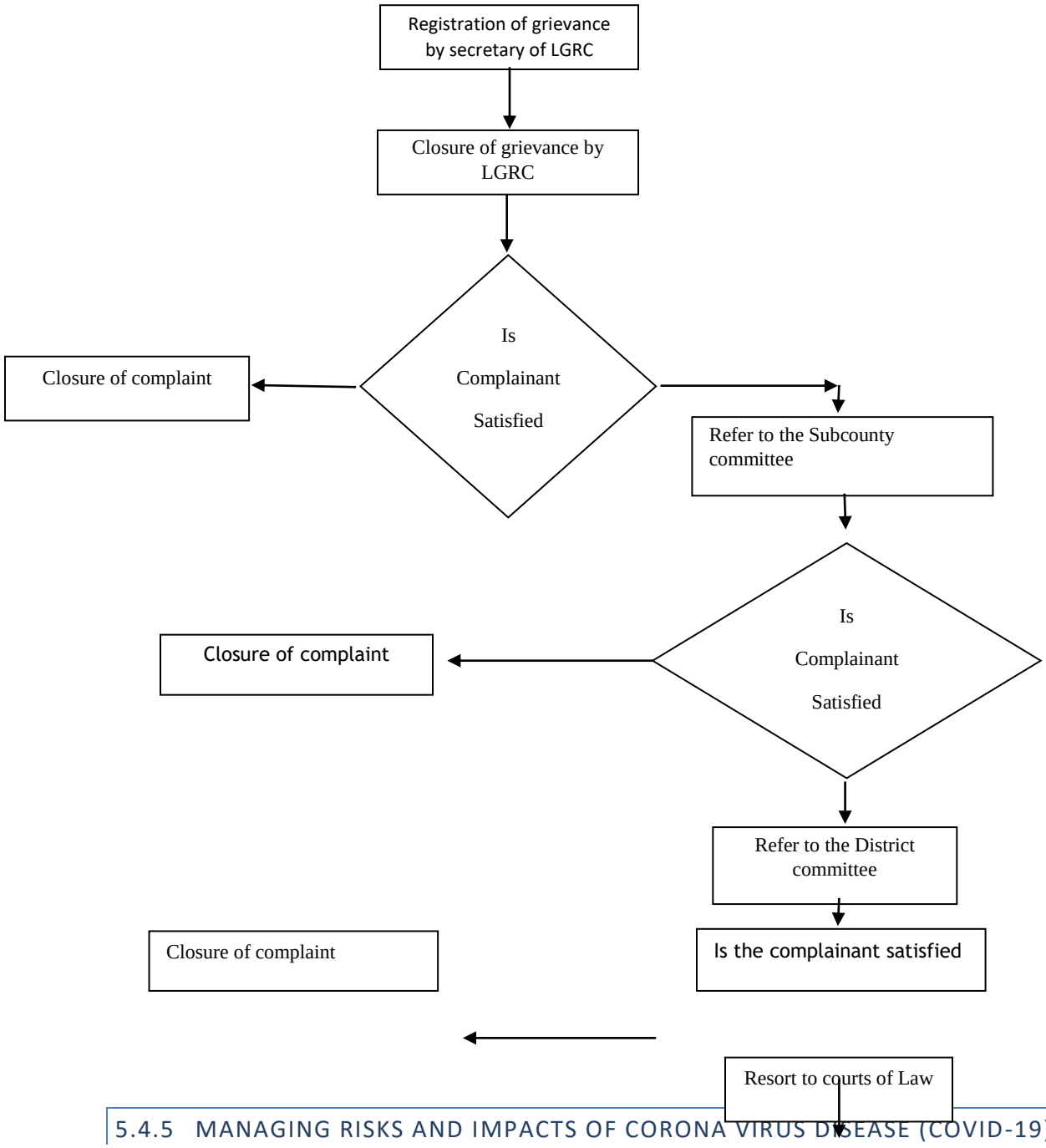
Appeal to Court - The Ugandan laws allow any aggrieved person the right to access to Court of law. If the complainant still remains dissatisfied with the District Land Tribunal or MAAIF top management in Entebbe, the complainant has the option to pursue appropriate recourse via judicial process in Uganda. Courts of law will be a "last resort" option, in view of the above mechanism.

Management of grievances

There are ways to proactively solve issues before they even become grievances, and this is in tandem with the E&S mitigation hierarchy. Implementers should be aware and accept that grievances do occur, that dealing with them is part of the work, and that they should be considered in a work plan. Project Implementers should do the following:

a. **Provide sufficient and timely information to communities**. Many grievances arise because of misunderstandings; lack of information; or delayed, inconsistent, or insufficient information. Accurate and adequate information about a project and its activities, plus an approximate implementation schedule, should be documented in the SEF and SEP and communicated to the communities, especially PAPs, regularly. Appropriate communication channels and means of communication should be used;
b. **Conduct meaningful community consultations**. MAAIF shall continue undertaking community consultations and dialogue throughout the implementation of the project. Sharing information, reporting on project progress, providing community members with an opportunity to express their concerns, clarifying and responding to their issues, eliciting communities' views, and receiving feedback on interventions will benefit the communities and the project management; and
c. **Build capacity for project staff, particularly community facilitators and other field-level staff**. The community-level facilitators and field-level staff of MAAIF and the participating Districts shall continue to be provided with adequate information on the project such as project design, activities, implementation schedules, and institutional arrangements as well as enhanced skills in effective communication, understanding community dynamics and processes, negotiation and conflict resolution, and empathizing with communities and their needs. Building trust and maintaining good rapport with the communities by providing relevant information on the project and responding effectively to the needs and concerns of the community members will help solve issues before they even become grievances. It is also important that community facilitators and field-level staff provide regular feedback on their interactions with the communities to the higher levels of the implementing agencies as will be in both the Project Implementation Manual and, the project SEF.

The Process Flow Chart of Grievance Redress Mechanism



5.4.5 MANAGING RISKS AND IMPACTS OF CORONA VIRUS DISEASE (COVID-19)

During implementation of the project, there is need to be cognizant of COVID-19 pandemic and its associated risks of infection, if the required measures are not followed. The World Health Organization declared COVID-19 a global pandemic after assessing both its alarming levels of spread and severity, and the alarming levels of inaction. Consequentially, WHO issued various measures to prevent the spread of the virus, and these measures have been adopted worldwide. In Uganda, Ministry of Health has adopted most of the WHO measures and as a result the government has enforced lockdown measures, restricted movements, popularized and encouraged people to practice regular hand-sanitization/hygiene and introduced social distancing guidelines among other Standard Operating Procedures.

While a number of countries worldwide have eased the conditions and allowed restricted human interaction, WHO has warned the virus might persist and become a way of life, thus requiring Standard

Operating Procedure (SOPs) throughout. Therefore, nearly all aspects of the project, including preparation, execution and completion will be affected. More so, project stakeholder and public consultations, including mobilization and execution activities will have to be undertaken at a slower and cautious pace, than usual, taking into consideration SOPs and guidelines from the Ministry of Health, including the Presidential directives issued on the same.

Therefore, in order to ensure project implementation is not greatly affected the following measures shall be followed by the project implementers;

a. MAAIF shall develop as part of Project Implementation Manual, the COVID-19 Standard Operating Procedures (SOPs) for managing the spread of Covid-19. The SOPs shall be prepared jointly in consultation with the Ministry of Health and the District COVID-19 Task Forces;
b. At the bare minimum, the following measures shall be ensured: observance of 2 meters social distance as guided by MoH, non-shaking of hands, regular use of hand-sanitizers and washing hands with soap, wearing of face masks while in public, use of temperature guns to screen project participants during project events that bring participants together, reporting protocol of any likely infection of persons, regular training of communities and leaders on COVID-19 control measures; etc.
c. Provision of appropriate Personal Protective Equipment (PPE) to all project workers and visitors;
d. Adopting electronic means of consulting stakeholders, whenever possible. At community Level stakeholders, telephone communication and local FM Radio Stations is encouraged.
e. Upon guidance by MoH, the project shall adopt rapid testing of workers for covid-19 on a regular basis;
f. The project will liaise with MoH and District COVID-19 Task Forces to make special effort to ensure that healthcare providers effectively include Indigenous Peoples communities. For example, in case of COVID-19 outbreak, health personnel with specific knowledge of their social customs and culture should be included in teams providing emergency services to indigenous and marginalized peoples; and
g. Corroboration with the Ministry of Health and COVID-19 District Task Forces will be key in ensuring that the potential impact of COVID-19 on the project is minimized as much as possible.

The PCU and district project focal point persons shall maintain contact with the community facilitators (CFs) via zoom meeting, phone calls, and messaging. This will aid districts and communities to continue operations while complying with health and safety directives by the government of Uganda. Further actions will be taken as the situation evolves to encourage and support safe approaches to operating under COVID-19 conditions.

6 STAKEHOLDER ENGAGEMENT, CONSULTATIONS AND DISCLOSURE

6.1 OVERVIEW

Stakeholder engagement is an inclusive process that will be conducted throughout all the stages of the project. It is aimed to support the development of strong, constructive and responsive relationships which are important for the sustainability and acceptability of the project. Stakeholder engagement is most effective when initiated at an early stage of the project development process, and is an integral part of early project decisions and the assessment, management and monitoring of the project's environmental and social risks and impacts.

As seen under the ESS10 Stakeholder Engagement and Information Disclosure under the ESF recognizes the importance of open and transparent engagement with project stakeholders. Success of any project is hinged on the level and quality of stakeholder engagement, which is to be an inclusive process expected to occur throughout the project life cycle. Engagement is more useful when introduced in the early phases of project development and is mainstreamed into all levels of decision-making. To this end, the Project ESMF shall be disclosed. Under Component 5 (Project Coordination, Management, Monitoring, Evaluation and Learning), the project has allocated an adequate budget to undertake implementation of the environmental and social mitigation measures effective and meaningful stakeholder engagement with all of the project affected groups throughout the life cycle of the project. GoU through MAAIF and Ministry of Finance Planning and Economic Development have committed to implement the project in compliance with the World Bank's ESF as documented in the Environmental and Social Commitment Plan which forms part of the Financing Agreement.

6.2 OBJECTIVES OF STAKEHOLDER AND COMMUNITY CONSULTATIONS

The consultations with stakeholders and communities were carried out to specifically achieve the following objectives to:

a. provide information about the project and to tap stakeholder information on key environmental and social baseline information in the project area;
b. provide opportunities to stakeholders and PAPs to discuss their opinions and concerns respectively;
c. solicit the stakeholders' views on the project and discuss their involvement in the various project activities;
d. discern the attitudes of the community and their leaders towards the project so that their views and proposals are taken into consideration in the formulation of mitigation and benefit enhancement measures;
e. identify specific interests of and to enhance the participation of the poor and vulnerable groups; and
f. Inform the process of developing appropriate management measures as well as institutional arrangements for effective implementation of the Project.

6.3 ENGAGEMENT WITH STAKEHOLDERS

The following key methods of engagement were used to inform the various stakeholders and public about the proposed Climate Smart Agricultural Transformation Project, specifically its key components and activities. The public consultation period began on 6th December 2021 to 7th January 2022. The process served to provide information about the project and the purpose of the ESMF as well as a

framework plan for environment and social compliance during project implementation. Introductory meetings were held with the Environmental and Social Safeguards Specialists for ACDP which helped to map out stakeholders to be contacted and their contacts as well. The ACDP Environmental and Social Safeguards Specialists also did raise the district stakeholders on phone to inform them about the study which paved way for subsequent consultative engagements, besides the letters sent to the participating district CAOs to introduce the Consultants.

6.4 ISSUES OF FOCUS DURING STAKEHOLDER ENGAGEMENT

The stakeholders were invited to respond to specific questions relating to the proposed Climate Smart Agricultural Transformation project and were also encouraged to make additional comments during the consultation process. Some of the key issues discussed with stakeholders regarding the project were summarized as follows:

a. Provision of information on the project to the stakeholders i.e. its development objective, key components, activities to be undertaken;
b. Target beneficiaries of the project;
c. SLM and Restoration Component and how it will be implemented, including targeting of specific CSA Technologies, Innovations & Management Practices (TIMPs);
d. Modalities of mobilizing communities to engage in LIPWs with a focus on the youth, women and other vulnerable groups;
e. Wider stakeholder fears in the use of pesticides and acaricides to boost crop and animal husbandry respectively;
f. Suggestions on how best the project could be implemented while ensuring sustainability; and
g. Any other suggestions to improve project plans and its implementation.

Cognizant of the existing World Bank (March 2020) guidelines in relation to physical meetings, the consultant used online platforms such as Zoom, telephone, WhatsApp and Email exchanges to conduct the consultations.

6.5 FACE TO FACE CONSULTATIONS AND ISSUES RAISED ABOUT UCSATP

Where this was feasible and safe and in line with Ugandan Ministry of Health and World Bank Guidance of March 2020 on Public Consultations amidst COVID-19, the Consultant conducted face to face engagements especially with stakeholder government Ministries and Departments. This was done through initial written requests for such meetings and upon receipts of such requests, Ministries scheduled the meetings.

The stakeholders raised some concerns which can summarized as follows and details of the meetings are in Annex 11:

- Expectant on employment opportunities: There are high expectations from the project in the communities in that, they look forward to some employment opportunities in its various activities. The project should provide information to the public with respect to possible employment that are likely to be generated;
- Possible avenue for gaining on-job training and capacity building for those to be employed in the project. Implicit desire of affected people and the communities to develop new/existing skills needed for employment or to support entrepreneurial ambitions. However, skills development is part of the project interventions under its capacity building plans;

- Potential to serve as source of income for local service providers who supply materials and other basic goods required to the operations of the project. It is clear they communities require support their businesses by availing right and update information on goods and services that will be required in the project;
- ensuring that, capacities of the beneficiaries to manage the investments at the end of the project cycle are built so that they are able replicate and adopt to their conditions;
- The project should start as soon as it is approved so that, the communities are saved from the problems of rampant droughts, floods and related weather challenges that have affected food production;
- The project will require extensive gender sensitization through training of staff, community sensitization and awareness creation on gender using gender sensitive language, gender sensitive and inclusive IEC material and radio talk shows. Need for adequate involvement of diverse stakeholders taking into gender and related vulnerabilities in the communities; ensuring that technologies to be promoted in the project should be easily adapted to the local settings; This will help get women to be part of the project for their meaningful engagement in the project interventions;
- Value chain improvements interventions must incorporate measures and technologies for waste management which use technologies like rec-cycling etc. Outside most rice mills, there are heaps of straw which farmers are not able to effectively turn to usable products that can be used as fertilizers, sources of cooking fuel amongst others;
- The livestock component has to come with technologies for Greenhouse gas management especially biogas technologies and applications;
- One of the challenges in farming is erratic weather, how does the project ensure timely early warning weather information reaches the grass-root farmers so that they are able to synchronize their cropping schedule in line with the rains?
- Issues of encroachment in swamps and wetlands by communities who grow rice growing hence, swamp reclamation. The project should come with alternatives so that people can easily get of wetlands if this CSA project is to meaningfully support environment and natural resource management. The question is, why have communities continued to be engaged in wetland encroachment despite them knowing the benefits from wetlands in terms of their values and uses, this is what should be looked at in the project to be able to have tangible project interventions;
- Need for continued engagement with communities living near degraded and fragile ecosystems such as wetlands and forests so that, the project has responsive interventions that can enable communities abandon engaging in livelihoods in such ecosystems;
- Issues of tree cutting by the communities for charcoal and firewood has degraded the environment, the need for the project to come clear with tangible measures of tree planting and the women be on the forefront on this as well as the youth. How are schools being targeted as well as tertiary training institutions as well as academia?
- Need for continued sensitization and mobilization of the communities especially on the timelines of the project so that they are set to be meaningfully engaged in the project. The teams preparing the project should be providing such milestones;
- Need for adequate involvement of diverse stakeholders taking into gender and related vulnerabilities in the communities; ensuring that technologies to be promoted in the project should be easily adapted to the local settings;
- Enhancement of household livelihood initiatives under UCSATP; ensuring there is a clear and robust communication mechanism for managing grievances without reprimanding victims especially where there are instances of gender-based violence (GBV), sexual harassment (SH) and sexual exploitation (SE);

- ❖ Wider stakeholder perceptions on the possible usage of safer pesticides especially in the event of pest invasions citing the current nationwide attacks by the ravaging Armyworms;
- ❖ Insufficient water supply for farming purposes in that, farmers rely on rain water for irrigation therefore, irrigation technologies ought to be those which even the local communities can co-opt and operate;
- ❖ Lack of mechanization is affecting farming. People have problems of opening up land by hand and others by oxen which oxen are not even available. There is urgent need for mechanization of agricultural operations so that agriculture is not seen as a burden but rather a venture that is enjoyable and profitable capable of attracting youth not when it has still its hand-hoe technology;
- ❖ ensuring that infrastructure constructed by UCSATP especially the Labour-Intensive Public Works (LIPWs) are well operated and maintained, reviewing project designs to ensure they include community needs including needs of the vulnerable;
- ❖ Interest groups and vulnerable categories ought to have their resources and involvement ring-fenced otherwise they are often left out during implementation. What is key, let there be clear provisions for interventions meant for vulnerable groups in view of their uniqueness. In NUSAF 2 and 3 there was a special program and approach meant for Karamoja which should be the case under UCSATP otherwise these groups tend to miss out from programs where they are included in the overall project interventions;
- ❖ UCSATP in its PMU should amongst its staffing include a VMG Specialist who is to ensure information regarding the project is accordingly packaged and delivered to and from VMGs for their effective and meaningful involvement in UCSATP; and
- ❖ improvement of information disclosure, more support to vulnerable persons and community training on safety awareness.

Table 6-6-1: Summary of stakeholder issues during consultations

Date and stakeholder met	Issues raised	Remarks and clarifications by the Consultants	Proposed Actions to address outstanding issues.
6th December 2021 to March 2022 Stakeholders include; District CAOs, DPOs, DAOs, DEOs, Farmer organisations, and ZARDIs from selected districts, ZARDIs, and MDAs	Conflicts over some of the production resources such as; land – among refugees, men and women and youths within the households, wetlands due to a proposal for some of the value chains such as fish, rice, wild life and human settlements and farmer fields, pasture especially among the pastoral communities that are doing communal grazing.	• These issues have been noted and they will be taken care off at the project design to ensure inclusiveness in the project •	Appropriate measures have to be defined in the SEF including the GRM
	Will the beneficiaries be required to co-fund?	• This will be clarified at inception of the project but obviously its	❖ Undertake farmer sensitisation

Date and stakeholder met	Issues raised	Remarks and clarifications by the Consultants	Proposed Actions to address outstanding issues.
		important for farmers to co-fund	throughout project implementation
	What will be the role of local government in the project	• Mobilize and involve the beneficiaries to benefit from the project	❖ Clearly map out stakeholders and define their role in the project
	Management of water infrastructure for it to be sustainable	• There were established water committees at the existing dams	❖ Need to strengthen the water management committees

6.6 FUTURE CONSULTATIONS

6.6.1 ISSUES FOR CONSULTATION

The project intended objectives, the locations, enhancement mechanisms, its ownership as well as the need of public consultation have to be briefly discussed in an inclusive, comprehensive, culturally sensitive, meaningful and effective manner to all to the participants that they can forward their views on these bases. The CDOs and DEOs will have to refine and clearly indicate the issues that have to be pointed out and discussed during public consultations. As the situation permits and depending on the public health circumstances, the project will ensure compliance with national law, policies and protocol requirements as well as World Health Organization and World Bank guidance[28] regarding the COVID-19 situation in relation to stakeholders' consultations, project worksites and related areas.

6.6.2 CONSULTATION DURING MOBILIZATION AND SENSITIZATION

At this stage, MAAIF and Local Governments (LGs) will undertake awareness creation among the key stakeholders of the Project at national, district, sub-county and community levels. This will help create a good understanding of Project objectives, activities, access criteria, implementation modalities and inspire stakeholders to actively participate in Project implementation. The awareness creation will be done through electronic, print and traditional media, workshops, seminars and community meetings as an ongoing undertaking. The sensitization and mobilization campaigns are expected to initially stimulate community interest in the project support as well as promote effective stakeholder participation, transparency and accountability in Project implementation throughout the subproject cycle. The communities will express their interests in Project support in form of subproject interest forms (SPIFs) that shall be distributed free of charge. The distribution of sub-project interest forms will be the responsibility of the Sub-County Chiefs, Community Development Officers or any other officers assigned

[28] For example, see "Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings," March 20, 2020

the task. The SPIFs will be made available in public places e.g. sub-county headquarters, places of worship, trading centres, etc. The Sub-County Focal Persons shall receive all SPIFs and register them in the SPIFs register to be opened in each the sub-county.

6.6.3 CONSULTATIONS ON TORS FOR ESIA/ESMP/PROJECT BRIEFS

The intent of public consultation during scoping is to ensure that the ESIA/ESMP/ Project Briefs take full account of the priority concerns of project-affected people and other relevant stakeholders and identifies the full range of potential impacts. Once the ToRs for the ESIA/ESMP/ Project Briefs are available in draft form and before they are finalized, the respective implementing agencies will have to obtain community and stakeholders' inputs on the ToRs and particularly to check that no issue of concern to communities/stakeholders has been omitted in the scope of assessments in the final ToRs.

The Consultant will assemble appropriate materials, (maps, graphs, drawings, simulations, models, key environmental figures) and disclose them in a manner acceptable to Bank policies (timely prior to consultation, in a form and language that are understandable, in locations accessible with reasonable effort to the groups being consulted) and organize venues which will enable the affected population to participate without excessive undue efforts. Suggested venues would be near the project sites ensuring accessibility to all affected people. After finalization of the ToRs, the respective implementing agencies will meet with representatives of the key stakeholders to review the final draft ToRs and receive feedback on any issues they feel are missing. Terms of Reference for the follow-on ESIA/ESMP/ Project Briefs will be reviewed and adjusted depending on the outcomes of this phase and will be final after this stage.

6.6.4 CONSULTATIONS ON DRAFT ESIA REPORTS

The second round of consultations will be held on draft environmental and social assessment documents and management plans to integrate stakeholder concerns into the final versions. Once the drafts of ESIA/ESMP/ Project Briefs are available, and before they are finalized, the Consultant will have to obtain stakeholders' inputs on the reports' conclusions and particularly on the mitigations and management plans. As far as public disclosure is concerned, major initiatives to inform the public and interested parties about the Climate Smart Agricultural Transformation Project may include the following:

a. Press advertisement describing the project and inviting interested parties to provide comments at a stakeholder workshop; and
b. Disclosure of the Draft Final ESIA/ESMP/ Project Brief Reports, including the Executive Summary, locally and via the World Bank *website*.

It is expected that the Draft Final ESIA/ESMP/ Project Brief reports, together with the respective Non-Technical Summaries will be disclosed locally for 30 days at the offices of the implementing agencies and the World Bank *website.* In order to make people aware of the disclosure of the Draft Final ESIA/ESMP/ Project Brief Reports, an advertisement will be placed in one of the national newspapers, which will also draw readers' attention to the date and venue of the proposed public meeting if any.

6.6.5 ONGOING CONSULTATIONS

The World Bank also requires that the consultation process is ongoing during the construction and operation phases of the project. To this effect, MAAIF and the participating Districts will be required to maintain long term and mutually beneficial open dialogue with local authorities and the public through the Environmental and Social Safeguards Specialists and District Officers (DEOs & CDOs) during implementation. A key role of post consultations will be to ensure that local stakeholders have an opportunity to raise questions, comments or concerns and that all issues raised are answered promptly and accurately. Therefore, disclosure of information will also continue throughout project construction

and operation. The primary emphasis here will be to assure stakeholders that the environmental and social mitigation, monitoring and management practices established in the ESIA and ESMPs/ Project Briefs are being implemented and the environmental and social standards and guidelines required by Government of Uganda and the World Bank are being met through a comprehensive monitoring and reporting process.

In that regard, the implementing agencies will have to maintain Environment and Social Registers of written records with respect to environmental and social impacts from the planned Climate Smart Agricultural Transformation Project. In addition, an annual report containing information relating to the monitoring program will be prepared by the implementing agencies and submitted to NEMA and the World Bank.

6.6.6 CONSULTATIONS WITH SPECIAL GROUPS

The majority of the target beneficiaries include Internally Displaced Persons (IDP) returnees, widows, orphans, people living with HIV/AIDS, ex-combatants, former abductees, female-headed households, child mothers, unskilled and unemployed youth, disarmed Karamojong, youth, elderly, child headed families, persons with disability, landmine victims, and persons/communities meeting the criteria of ESS7. Interest in the Climate Smart Agricultural Transformation Project will therefore vary among different vulnerable groups (and individuals) in the community, and they may be affected differently. It will be important to keep this in mind during the consultation process, and in some cases, it may be more appropriate to consider the needs and priorities of sub-communities rather than those of a whole village. The consultative and communication strategy has to place a special emphasis to ensure the participation of vulnerable groups in decision making throughout Climate Smart Agricultural Transformation Project planning, implementation and evaluation.

Given the social setup of the vulnerable and marginalized groups, a Free, Prior and Informed Consent (FPIC) in the consultation should be applied in line with World Bank's ESS7 because consultations will definitely require time and an effective system of communication amongst interested parties to ensure that it adequately deals with their needs, priorities, and preference. This will be best achieved through discussions in focus groups specific to each category. Where participation of certain group of people in community meetings is difficult, due for example to geographical distance or social segregation, other methods such as door-to-door visits, structured and unstructured interview, separate community meetings or other participatory techniques will be considered. Local languages should be used and efforts should be made to include all community members.

People with disabilities are the world's poorest of the poor and vulnerable in countries even where the World Bank has invested in a number of development projects. This is because sometimes PWDs are not systematically consulted and therefore excluded in the planning and implementation of projects. Due to the Lord Resistance Army (LRA) conflict in the Northern and North-Eastern Regions, there are a number of PWDs in the project areas and the consultation of PWDs will be critical to guide subproject designs to ensure their inclusion.

During the implementation of the project, PWDs will be consulted, particularly those in leadership positions. To be effective there is a need for sign language interpretations services and information in Braille as may be applicable. Therefore, the Climate Smart Agricultural Transformation Project Implementation Manual should clearly provide details on consultation of PWDs.

6.7 DISCLOSURE

Consistent with the requirements of the ESF (ESS-10) and Uganda's NEA 2019; all the environmental and social risk management instruments and reports shall be disclosed, at host communities' level, district level and at national level. Disclosure of documents at National level shall be undertaken by MAAIF, through the daily print media and on the websites of MAAIF, NEMA, MoGLSD. Disclosure at the District and Community level shall be undertaken by the host District Environment Officers and Community Development Officers, by display of hard copies of project reports for public access at the district Offices, Sub-county Offices, and village groups. Comments shall be compiled by community facilitators and passed on to the District Officials, who in-turn will submit to the National PIU for consideration and incorporation into project design, as much as possible.

7 PROJECT IMPLEMENTATION ARRANGEMENTS, RESPONSIBILITIES AND CAPACITY BUILDING

The implementation of UCSATP will involve a number of key agencies at the national and local level. Given the scope of project activities, several ministries will be involved in providing guidance and oversight of the project. Accordingly, the project will require strong coordination of activities and consultation at the national, zonal/regional, district, sub-county and community levels. At the national level, the Ministry of Finance, Planning and Economic Development (MoFPED) will represent the Government of Uganda ("the Borrower") and the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) will be the lead implementing agency with primary operational guidance and implementation functions as well as the over responsibility for project implementation. Within MAAIF, the project will be anchored in the Department of Agriculture Infrastructure Mechanization and Water for Agriculture Production (DAIMWAP). A Project implementation Manual (PIM) will describe institutional relationships at both national and District levels; their roles and responsibilities; the development and approval of Action Plans and annual workplans and budgets (AWP/B).

National level:

At the national level, the project will establish the **National Project Steering Committee** co-Chaired by the Permanent Secretary (PS) MoFPED and the PS MAAIF responsible for providing strategic guidance to the project. It will comprise of Permanent Secretaries (PS) of MAAIF, Office of the Prime Minister (OPM), MoFPED, Ministry of Trade, Industry and Cooperatives (MTIC), Ministry of Local Government (MoLG), Ministry of Water and Environment (MWE). The committee shall also include Directors of National Animal Genetic Resources Centre and Data Bank (NAGRC&DB), National Agricultural Research Organization (NARO), Uganda National Meteorological Authority (UNMA), Comprehensive Refugee Response Framework (CRRF), a representative of Chief Administrative Officer (CAO) with the National Project Coordinator being an ex-officio and Secretary to the committee. The committee will also approve the project's Annual Work Plans and Budgets (AWP&BS).

There shall be a **National Technical Advisory Committee**, comprising (among others) Commissioners of relevant line Ministries and departments - Commissioner Refugees, including, NAGRC, CRRF, UNMA, NEMA, MGLSD, NARO Director for Technical Promotion and Outreach, Inter-governmental Technical Working Group responsible for Projects/Programs as well as private sector and farmer organization representation. The committee shall be chaired by the Director of Agricultural Extension Services[1]. The advisory committee will be responsible for providing technical support to overall project implementation and approving the national, zonal and district level investments and selected CSA research proposals.

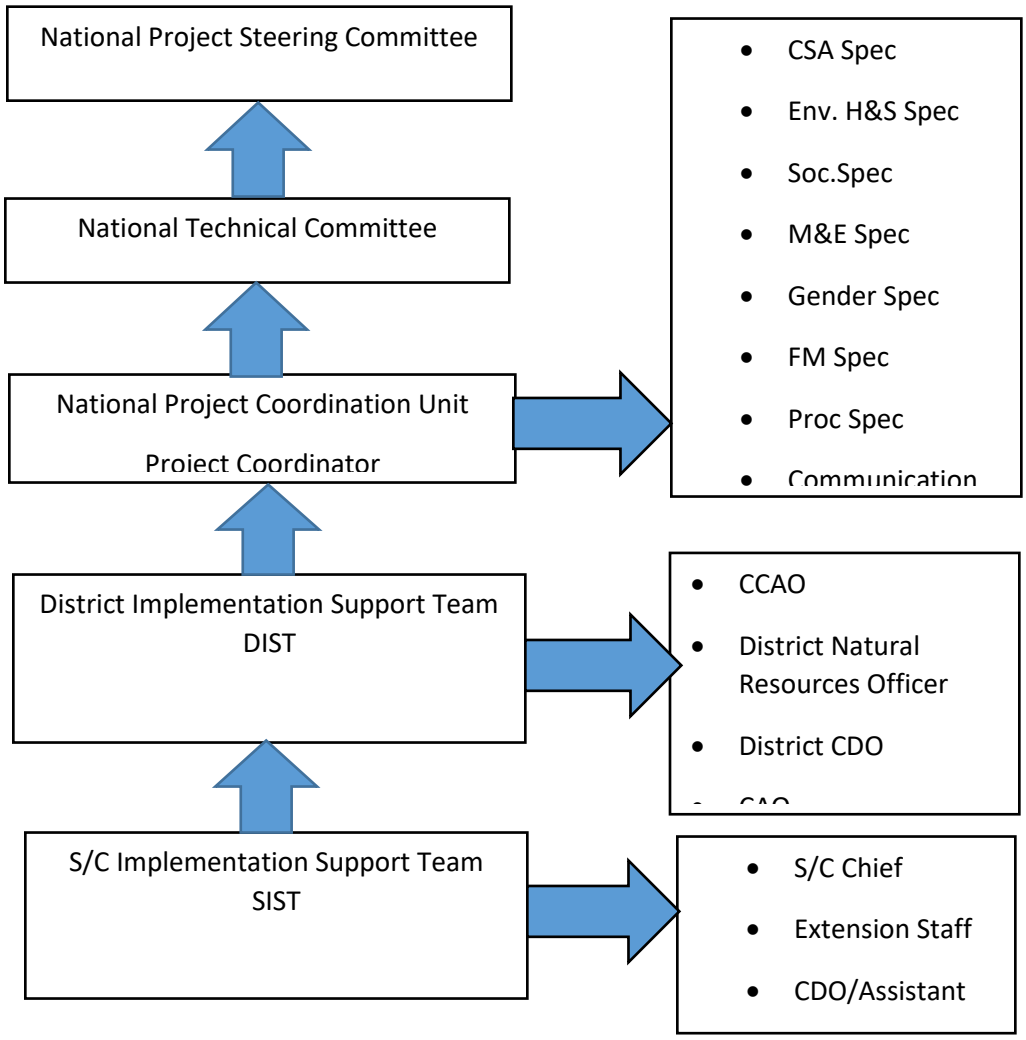
A National Project Coordination Unit (PCU) will be constituted and headed by the National Project Coordinator and a Deputy National Project Coordinator who will be supported by Component Managers

assigned by the PS, MAAIF. These shall be full time officers assigned to the project by MAAIF. The following support staff shall be recruited on competitive basis; an M&E Specialist, Financial Management Specialist, Procurement Specialist, Communication and Knowledge Management Specialist, CSA Specialist, Gender Specialist, Environmental, Health and Safety Specialist, Social Safeguard Specialist. The project shall procure short term consultants to support the Environment and Social Safeguards Specialist in executing selected project activities. A Refugee Agriculture Specialist will be included in the PCU working with the Jobs and Livelihoods Integrated Response Plan (JLIRP) Secretariat. The National Project Coordinator will serve as the secretary to both national project Steering and technical advisory committees. The PCU shall therefore be responsible for overall coordination of implementation, receive plans, and progress reports for consolidation, provide overall guidance, monitoring and quality assurance of project activities. MAAIF shall further provide information and communication services to Local Governments, strengthen inter-institutional linkages among research, educational and farmer institutions, promote agribusiness services, enterprise development and agricultural value chain development in close collaboration with the private sector. NARO shall coordinate the competitive agricultural research grants under the project using existing NARO Sec structures, systems and guidelines to manage the Competitive Grants.

Considering the demands required for project management and coordination and MAAIF's own limited human resources. Five (5) Zonal Coordination offices will be established at the Zonal/regional level to support the NPCU with consolidation, monitoring and reporting on project activities and progress at the Zonal/regional level. The offices will have a Zonal Coordinator, Accounts Assistant and M&E Assistant based at Zonal level and hosted by ZARDIs. The coordinators will be seconded to these roles by MAAIF, in cases where technical manpower exists. The Zonal Coordination offices will be housed at the ZARDIs participating in the project for a more streamlined

At local government level, the project will be implemented through the District Production Officer, Labour Officer, District Community Development Officer, District Environmental Officer or and District Natural Resources Officer together with subcounty extension and community development officers. In addition, community-based facilitators will be recruited to support subcounty implementation. The overall coordination and supervision of the project at the district level shall be handled by the Chief Administrative Officers (CAO) who will also be in charge as the accounting officer.

At the subcounty level, the project will utilize the existing structures. A Sub-County Technical Planning Committee will be chaired by the Sub-County Chief. The committee will review and consolidate the work plan and budgets for micro-projects submitted by the farmer Organizations. The Sub-County Technical Planning Committee will support and guide the planning and priority setting process for farmer Organizations. One Extension Officer and/or Community Development Officer/ Assistant shall be assigned as Focal Point person to support and coordinate management of E&S.



7.1 ROLE OF MAAIF

The overall responsibility for project implementation will lie with MAAIF. A Project Coordination/Implementation Unit (PCU/PIU) comprised of senior level officials from the respective technical departments of MAAIF to take on responsibility for day-to-day management of the project. Among other staff, the PIU will be constituted by Environmental, Health and Safety Specialist, Social Specialist, Financial Management Specialist and Procurement Management Specialist. MAAIF will undertake overall technical coordination and implementation of the project, coordinating the National level MDAs and the participating District Local Governments.

The PCU/PIU will have the following overall E&S Roles:

- Recruiting and maintaining qualified Project Environmental, Health and Safety Specialist (1) and Social Specialist (1) throughout the project duration;
- Ensures the dissemination of the ESMF to the various key actors (MDAs, Districts, Sub-Counties) during project launch and throughout project implementation;

- Undertake Periodic E&S Training of all project Implementing entities (MDAs, Districts, Sub-County Extension Staff, and Community Facilitators);
- Preparation of the Annual Work Plan and Budget (AWPB) of the Project, ensuring budgeting for environmental and social works including operational costs, costs of compensation (if necessary), E&S monitoring, facilitating ongoing Stakeholder Consultations and feedback, operation of the grievance management, etc;
- Undertaking Preliminary analysis / Screening activities listed in the AWPB (year n-1) against the National Check List and / or ESMF criteria (*regulatory and technical process that begins in the office and ends in the field and which allows a project / sub-project to be classified in one of the ESF ESRC (H, S, M, L) and the levels set by National law and procedures: (Exempt, Project Brief (ESMP), EIS)*: and to identify those that must be object of:
    - The development of ESIA (simplified ESIA/ESMP/Project Brief or detailed ESIA/EIS) , Environmental Audit and / or RAP;
    - The environmental and social requirements, i.e. Low ESRC/ Exempt activities should be screened even if the activity is not subject to an EA, and where necessary relevant measures specified to address the minor E&S risks which may be associated with such project activities.
- Preparation of the preliminary screening & scoping report and development of ToRs for the required ESA studies;
- Share with the Bank the ToRs produced by the E&S Specialists for the performance of specific environmental assessments for sub-projects / activities;
- Procurement/ hiring of E&S Consultants to undertake the required ESIA studies;
- Carrying out the Study or specific studies required (ESIA, RAP, ESMP / EA), etc.), ensuring close supervision of the Consultants to deliver quality work on time;
- Review of ESIA, RAP, ESMP, EA, etc.;
- Sharing with the Bank for review all E&S specific instruments prepared for the sub-projectsand ensuring incorporation of comments from the Bank;
- Undertaking Disclosure of the documents by MAAIF;
- Where necessary submitting the ESA Documents for relevant Statutory Approvals by the respective Government Agencies; ensuring that all the required authorizations (Permits, Certificates, Licenses, etc.) are obtained before the start of works;
- In collaboration with the Procurement Specialist, undertake integration of environmental and social requirements following the E&S Screening or environmental and social management measures (when the ESIA is carried out) in the Bidding Documents (BD) /Contracts;
- Sharing with the Bank for advice the Bidding Documents for works and the ToRs relating to works control/supervision, for review and No-Objection approval;
- Integrate E&S measures into BDs, then environmental and social clauses in contracts;
- Monitoring-Evaluation of the implementation of environmental and social management measures, ensuring the execution of E&S measures and clauses by contractors;
- Preparation and transmission of periodic reports on the implementation of environmental and social safeguards by stakeholders at different levels:
    - Contractors or service providers (including technical structures that have signed an agreement) must send to the Project Implementation Unit (PIU) monthly or periodic reports on the implementation of safeguard measures in accordance with their specifications as well as the accident reports (within 24 hours of the accident);
    - Supervision Consultant/ (Resident Engineer/ Project Manager) must produce monthly environmental and social monitoring reports to the PIU;

- The Project Implementation Unit (PIU) must send: (a) to the Bank the periodic reports on the implementation of environmental and social safeguards and the monthly RAP implementation report (if RAP / carried out) and (b) to the Environmental Agency (NEMA) the periodic reports on the implementation of E&S safeguards according to the frequency required by national regulations.

- Ensuring conduct of periodic E&S Audits, and in any case, undertaking Project Closure E&S Audit at least 6 months before closure in order to allow time for implementation of any required corrective E&S measures.

7.2 LIAISON WITH LOCAL GOVERNMENTS

Given that the project will rely heavily on decentralized delivery mechanisms, the local governments (Districts) will have a key role in planning and oversight. To this end, each District will have a District Implementation Support Team (DIST), composed of relevant technical staff at the District (District Natural Resources Officer, District Environment Officer, District Community Development Officer, District Forest Officer, Wetlands Management Officer, District Labour Officer, District Gender Officer, District Probation officer and Community Based Officers), led by the District Production or Agriculture Officer. The DIST will meet regularly to discuss implementation activities, as well as activities generated by the communities. They will also be the focal point to reporting up to the sub regional level and national level. At sub-county level, a similar structure, Sub-county Implementation Support Team (SIST), will be established to ensure closer engagement at the sub-county level.

At community level, the project will adopt the Community Based Watershed Development (CBWD) model linked with Ministry of Water and Environment and they will be managed directly by the District Natural Resources and Environmental Officers. The Ministry of Water and Environment has prepared Integrated Water Resources management plans for different catchments in the country, covering at least 50% of the country. The catchment management plans will be updated to confirm the hotspots that need intervention and as well as for preparing plans for micro catchments. The project will work with the Catchment Management Organizations in place, including the catchment management stakeholder forums that bring together all actors on catchment management across different districts in the catchment, the catchment management committees composed of representatives of all relevant stakeholder groups (government, politicians, and community-based organizations, NGOs, water users, media, academic institutions, and private sector). The project will also support the creation of catchment management organizations where they do not exist.

7.3 MONITORING AND EVALUATION

Implementation of the ESMF includes monitoring, reporting and evaluation. C**omponent 5: Project Coordination, Management, Monitoring, Evaluation and Learning** will support the operational expenditures related to the management and the monitoring and evaluation of the project. It will strengthen the planning and coordination of activities supported by the project, as well as the monitoring of their implementation, including environmental and social aspects.

Monitoring shall be undertaken at different levels by the respective project management teams at MAAIF, in the different Districts, and at local level. Local communities will be responsible for monitoring at their level to ensure that all required environmental and social mitigation measures are being implemented satisfactorily. Information collected from various stakeholders together with observations of project activities will be reported quarterly to MAAIF.

At national level, MAAIF will take overall responsibility for overseeing progress in implementing the ESMF requirements and assessing the effectiveness of mitigation measures against agreed indicators and parameters. MAAIF will consolidate and review monthly reports submitted by the different agencies.

All project results indicators will be disaggregated by gender to monitor women's participation in the project interventions. The project will also enhance capturing this environmental and social in a disaggregated manner data gender where applicable.

The compliance with ESMF will be monitored. The PCU at MAAIF will establish a monitoring system involving the PCU staff at national and District level, as well as community groups of CIGs/CDDCs to ensure effective preparation and implementation of the subprojects instruments in line with the frameworks prepared (ESMF, RPF, LMP, SEF, VMGF, GBV Action Plan)in order to address all activities that have potentially significant impacts on the environment, occupational health and safety, and social during implementation. ESHS monitoring activities should be based on direct or indirect indicators of emissions, effluents, and resource use applicable to the sub project. The ESIA for subprojects will be prepared following the provision and requirements of this ESMF and if necessary, subproject specific ESMP will be prepared. The Contractor will be required to prepare C-ESHSMPs. This will include the requirement for monitoring of ESHS in the sub-projects. Monitoring frequency should be sufficient to provide representative data for the parameter being monitored. The monitoring should be conducted by trained individuals, following monitoring and record-keeping procedures and using properly calibrated and maintained equipment. The monitoring data should be analyzed and reviewed at regular intervals and compared with the operating standards so that any necessary corrective actions can be taken. In addition, environmental and social monitoring should address all possible effects that the specific subprojects could have on the environment. The monitoring, therefore, should encompass vegetation loss, effects on natural terrestrial and aquatic habitats, erosion, air and water quality, as well as social surveys, impacts on vulnerable groups, traffic safety and health, and other occupational health and safety issues. A set of monitoring indicators will be determined during ESMP implementation and will be guided by the indicators contained in the ESMF/PAD document. The PCU support consultants will carry out monitoring as well as the World Bank environmental and social staff. Appropriate monitoring formats will be prepared for monitoring and reporting requirements.

The ESMF M&E outcome indicators should contribute to ensuring that:

- E&S screening of all subprojects is being undertaken and issues identified in the screening are being addressed. If not, the PIU, contractor/ service provider must develop and present for approval a plan to regain and/or maintain future compliance.
- E&S instruments specific to subproject level are being prepared in line with guidance provided in the respective frameworks. Where an ESIA and or an ESMP is developed, that all the commitments with regard to impact mitigation, monitoring, training of workers, etc. have been implemented. If not, the MAAIF shall develop and agree to a plan to regain and maintain future compliance.
- New environmental or social concerns that may have arisen because of the project implementation and operations are addressed and documented.
- If the environmental and social concerns identified are deemed significant the proponent may need to modify the ESMP to reflect a need for ongoing work to address the new impacts. Information on this new plan will be provided in the annual report and or be required shortly thereafter.

The PCU will develop terms of reference and cost and include M&E for any additional surveys or assessments proposed prior to conduct of an ESIA and or ESMP.

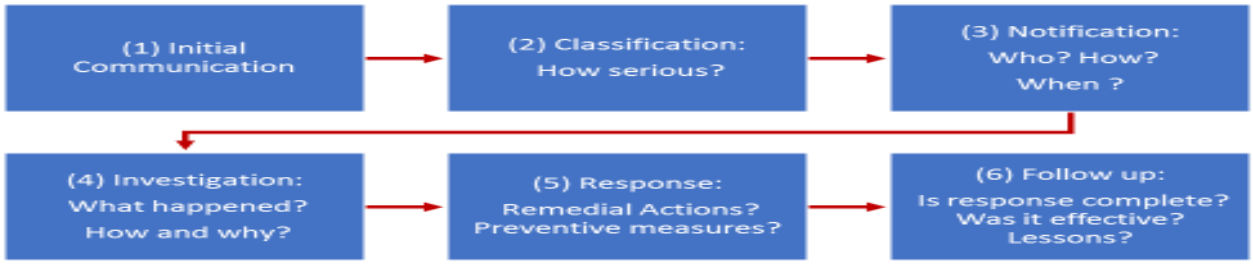
The following Table shall be used to monitor implementation of the ESMF:

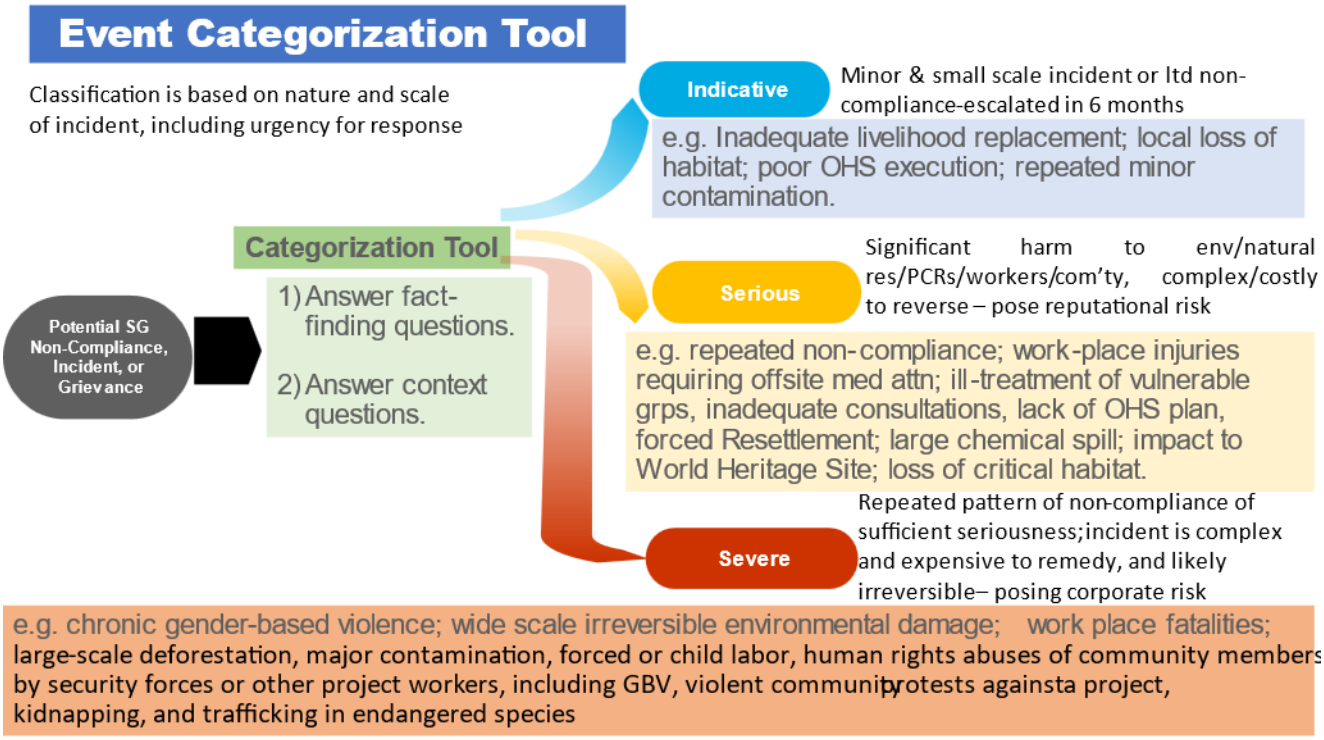
Project Subcomponent	ESSF Done (Y/N)	ESRC	E&S Instrument/s to be prepared	Timeframe	Responsible	Reviewed & Approval	Budget (USD)
			ESIA/ ESMP/ PMP and C-ESMP	Before start of civil works or implementation	MAAIF/ PIU, Contractor	WB NEMA	500,000
			H&S Mgt Plan LMP	Before start of civil works or implementation	MAAIF/ PIU, Contractor	WB NEMA, MGLSD	Contractor
			VGMP/ SEP	Before start of civil works or implementation	MAAIF/ PIU, Contractor		70,000
			RAP/ ARAP	Before start of civil works or implementation	MAAIF/ PIU, Contractor	Chief Gov Valuer	130,000

Regular Reporting to the World Bank: Being the main implementing and coordinating Government Ministry, MAAIF will on a quarterly and Annual basis prepare and submit to the World Bank (Association) monitoring progress reports on the environmental, social, health and safety (ESHS) performance of the Project, including but not limited to, the implementation of the ESCP, status of preparation and implementation of E&S documents required under the ESCP, stakeholder engagement activities, and the functioning of the grievance mechanism. Besides the quarterly, implementation support mission, and annual reports, the reporting period may vary from time to time, depending on nature of ongoing activities, and this may range from monthly or activity-based reports. Depending on the nature of the intervention and availability and or need for close follow up, more frequent monitoring visits can be made to projects that show any signs of risks or impacts.

Reporting of Incidents and Accidents: MAAIF shall within 48 hours of occurrence promptly notify the Association of any Environmental, Social, Health and Safety (ESHS) incident or accident related to the Project which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers *including* child abuse, gender-based violence, Sexual Exploitation and Abuse, fatality, pesticide spills or misuse, etc. Provide sufficient detail regarding the incident or accident, indicating immediate measures taken or that are planned to be taken to address it, and any information provided by any contractor and supervising entity, as appropriate. Within fifteen days after the incident/accident, in consultation with the Bank, MAAIF shall undertake a Root-cause analysis and develop a Safeguards Corrective Action Plan to be shared with the Association, and this will include measures to prevent its recurrence, including actions, responsibilities and timelines for implementation, and monitoring program. The RCA should be based on existing country processes, where available.

Handling and reporting of Incidents/ Accidents shall be undertaken in the following order/process:





Initial Communication within 48 hrs of incident should contain the following information:

- What was the incident? What happened? To what or to whom?
- Where and when did the incident occur?
- What is the information source? How did you find out about it?
- Are the basic facts of the event clear and uncontested, or are there conflicting versions?
- What were the conditions or circumstances under which the incident occurred?
- Is the event still ongoing or is it contained?
- Is loss of life or severe harm involved?
- What measures have been or are being implemented? By who?
- Has the Government been informed? What is their response (if any yet)?

Further details and guidance in reporting incidents can be found in the World Bank's Environmental and Social Incidents Reporting Tool Kit.

Closure Environmental and OHS Audit: Before closure of project implementation (six months to closure), MAAIF shall commission an independent Environmental and Social Audit with a view of identifying any residual issues which will require to be addressed and/or followed up before and after project implementation.

7.4 GENERAL CAPACITY DEVELOPMENT FOR MANAGEMENT OF ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

7.4.1 CAPACITY ASSESSMENT NEEDS

Uganda Climate Smart Agricultural Transformation (UCSAT) Project has established a set of minimum standards of staffing and capacity which MAAIF and participating Government MDAs and Districts should have in order to successfully implement the project. Project Coordination Unit shall be established within MAAIF - headed by a Project coordinator and staffed, at a minimum, with a procurement specialist, a financial management specialist, environmental, health and safety specialist and social specialist- and shall be responsible for overall Project implementation including provision of technical guidance as well as coordination with Recipient's ministries and agencies". The positions of Project Coordinator will be seconded from staff under MAAIF. Social Specialist and Environmental, Health and safety Specialist positions, shall be competitively recruited within the timeline that will be set forth in the Environmental and Social Commitment Plan (ESCP) (within four months of project effectiveness). The staff shall have qualifications, skills and experience acceptable to the Bank in accordance with the Project Implementation Manual (PIM). The details of staffing arrangements will be further elaborated in the PIM to be prepared by the project team.

At National level, the project will closely work with National Environment Management Authority and Ministry of Gender Labour and Social Development. The participating Districts shall ensure participation of the following staff as part of the District Implementation Support Teams: Natural Resources Staff (District Natural Resources Officer, District Environment Officer, District Community Development Officer, District Forest Officer, and Wetlands Management Officer) and Community Based Services Department (District Labour Officer, District Gender Officer, District Probation officer, Community Based Officers). The full structure for project coordination including roles and responsibilities will be clearly outlined in a Project Implementation Manual (PIM) that will be prepared by the project team before commencement of project activities as indicated in the Financing Agreement.

In order to effectively implement the ESMF and other Environmental and Social (E&S) instruments prepared for the project, MAAIF, the line agencies, participating District Local Governments, Sub-Counties, Community Facilitators, and participating Community Groups shall need to enhance their basic skills and understanding of general environmental and social dimensions and with specific reference to the World Bank Environmental and Social Framework (ESF) requirements under which the UCSAT project has been prepared. The overall objective will be to build and strengthen the institutional capacity of the implementing agencies to better support the development and integration of social and environmental measures into the project. The institutional capacity building strategy will seek to:

a. Develop organizational mechanisms to ensure that environmental and social requirements of the World Bank and Uganda are followed throughout project implementation.

b. Assist MAAIF and the respective project implementing agencies and Districts in strengthening their capacity to deal with environmental and social issues in a sustainable and safe manner.
c. Ensure effective coordination between the respective implementing agencies and the districts.
d. Identify and assess overall needs for environmental education, information, awareness building and training.

7.4.2 STRATEGY

Prior to the subproject cycle, mobilization and sensitization of relevant technical teams and communities is important. MAAIF will put together a team of experts/consultants/persons that will orient the National MDAs, District and Sub-county technical planning committees, Community Facilitators, and Community Groups, on the ESMF implementation requirements and equip them with skills to undertake E&S screening and analyse potentially adverse environmental and social impacts, prescribe mitigation approaches, integrate environmental standards for planning and implementation into project activities and to prepare and supervise the implementation of the project. This training will address such matters as community participatory methods; undertaking E&S screening, environmental analysis; social analysis, reporting; and subproject supervision and monitoring, etc.

Furthermore, the MAAIF, MDAs, District, Sub County Authorities and Community Facilitators will undertake sensitization and awareness raising among key stakeholders of the project at national, district, Sub County and community levels. The CDO, together with Sub County Authorities and Community Facilitators will mobilize communities and sensitize them on the project objectives and its implementation modalities. Special emphasis will be put on the relevance and significance of environmental and social issues all through the sub project cycle so that they are familiar enough with these issues and can make informed and specific decisions and requests for technical support whenever need arises.

MAAIF/PIU Environmental and Social Specialists will work through the DCDOs, labour Officers and DEOs at the respective Districts and other relevant MDAs to organize practical training to build the knowledge and awareness of local government officials and local communities, on environmental and social issues related to the proposed project activities. Training will also seek to build the skills of local people to participate actively in identifying appropriate mitigation measures to avoid or reduce potential negative impacts of project activities. The Capacity building will be required to implement the recommendations outlined in the ESMF.

The key areas of capacity building in the Project to include:
a. World Bank ESF, the applicable Environmental and Social Standards and their implementation requirements;
b. Understanding Uganda's Environmental and Social Management Process, requirements and integration with WB-ESF;
c. Undertaking E&S Screening of Sub-project activities, development of ESMPs/Project Briefs and associated TORs;
d. Introduction to the project, description of each project Component and Implementation requirements and coordination/ management arrangements;
e. Training on safe use of agrochemicals, general health and safety in project activities;

f. Supervision of project activities, including documentation and reporting of severe and serious project incidents;
g. How to monitor implementation of mitigation measures and reporting;
h. Establishment and operationalization of Grievance Redress Committees;
i. Waste Management and Disposal of pesticides contaminated materials, and
j. Undertaking periodic (Annual and Quarterly) refresher E&S Trainings for various groups (National Teams, District Teams, Sub-county teams including Community Facilitators, Community Groups).

7.4.3 TRAINING IN ENVIRONMENTAL AND SOCIAL SAFEGUARDS IMPLEMENTATION

The training modules below are proposed to form part of the training program to ensure awareness of how to effectively implement the ESMF. Each Module will be delivered in one day.

7.4.3.1 MODULE 1

a. Introduction to Basic concepts on environment and social issues;
b. Their relevance and significance in project implementation;
c. Overview of environment and social management requirements in Uganda;
d. World Bank Environmental and Social Framework, summary of the 10 E&S Standards, and their requirements;
e. Introduction of ESF Instruments prepared for the UCSATP and their implementation requirements (ESMF, ESCP, SEF, PMP, LMP, GBV-AP, VMPP, and GRM);
f. FAO's Guidelines on Pesticides - key aspects for implementation.

7.4.3.2 MODULE 2

a. Introduction to Project Components, Implementation requirements and coordination/ management arrangements, responsibilities of various stakeholders and communities, including formation and coordination of various project Committees;
b. Environmental and social considerations of each project component;
c. Environmental and social assessment processes;
d. Mobilization and consultation of communities, taking into consideration vulnerable and marginalized groups;
e. Screening using the Environmental and Social Screening Form;
f. Development of and ESMP, its implementation, monitoring and reporting;
g. Training of District Health Teams on Health impact surveillance and monitoring.
h. Training on supervision of ESMP and associated implementation plans. This would address: how to ensure appropriate ESHS conditions included in project contracts, how to perform site visits to supervise/check works/activities, how to review project ES monitoring reports (e.g., from contractors) and how to prepare ES reports and notifications (e.g., to be sent to PIU, etc.), how to develop actions (plans) to resolve issues or non-compliances, etc.

7.4.3.3 MODULE 3

These will include:

a. Introduction of the project components and E&S requirements
b. Training all project workers on key provisions of project Code of Conduct;
c. Management of Occupational and Community Health and Safety aspects including emergency response;

d. Establishing and operationalizing Grievance Redress Committees, including their Training, Grievance Log maintenance and resolution of grievances;
e. Reporting Serious and Severe Incidents and Accidents relating to project operations, in compliance with World Bank's Operational Procedures;
f. Training project team on handling of Sexual Exploitation and Abuse cases; and
g. Training of project staff on implementation and observance COVID-19 SOPs.
h. Labour and Working Conditions, and Compliance with National Labour Laws
i. SGBV, child labor and protection issues
j.

k.

Table 7-1: Training categories and modules

S. Nº.	Trainees Categories	Module	Budget (USD)
1.	National Level (MAAIF, NEMA, MoGLSD, MoWE) – to be facilitated by JBN, WB & PIU	Modules 1, 2, 3	100,000
2.	District (DTPC) (Regional – Karamoja, Teso, Sebei, Bugisu, Bukedi, Busoga)–to be facilitated by MAAIF PIU & JBN	Modules 1, 2, 3	250,000
3.	Sub-County (STPC) and Community Facilitators (congregated at District)–to be facilitated by MAAIF PIU	Modules 1, 2, 3	300,000
4.	Community Facilitators (CFs)–to be facilitated by DISTs	Modules 3	300,000
5.	Community Groups (Farmer Groups, Catchment Mgt Committees, etc) –to be facilitated by DISTs & CFs	Modules 3	400,000
6.	Communities – to be facilitated by CFs	Awareness and Sensitization on Project activities and impacts, including community participation	500,000
	TOTAL		**1,850,000**

8 GENERAL ENVIRONMENTAL AND SOCIAL IMPLEMENTATION BUDGET

8.1 ENVIRONMENTAL AND SOCIAL BUDGET COMPONENTS

Financial resources are required to support implementation of the ESMF and general environmental and social management activities. Below are budget estimates to support basic environmental and social project management activities. The project is urged to prioritize and financially fund the listed activities in order to mitigate the likely environmental and social risks and impacts of the project activities.

Under Component 5 (Project Coordination, Management, Monitoring, Evaluation and Learning), the project has allocated an adequate budget to undertake implementation of the environmental and social mitigation measures effective and meaningful stakeholder engagement with all of the project affected groups throughout the life cycle of the project. The budget shall be adjusted as and when necessary to ensure implementation of environmental and social risk management measures. Government of Uganda (GoU) through Ministry of Agriculture Animal Industry and Fisheries (MAAIF) and Ministry of Finance Planning and Economic Development have committed to implement the project in compliance with the World Bank's ESF as documented in the Environmental and Social Commitment Plan which forms part of the Financing Agreement.

Table 8-1: ESMF Implementation Budget

Item	Annual Budget estimates (USD)				
	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027
Implementation of General Capacity Development Plan for Management of Environmental and Social Risks and Impacts in the project (Chapter 7.4).	800,000	400,000	300,000	250,000	100,000
Projects supervision by project Environmental and Social Specialists at MAAIF	300,000	300,000	200,000	200,000	100,000
ESSH compliance supervision by District ESS team	205,800	205,800	155,800	155,800	155,800
Enhancing MAAIF's safeguards management infrastructure such as E-ESSH safeguards tracking system and analytical monitoring equipment		533,200	331,600	127,200	
stakeholder engagements, preparation and implementation of site-specific instruments and tools including mainstreaming of ESHS aspects in other sector operations	1,062,300	1,062,300	1,062,300	1,062,300	1,062,300
Strengthening Grievance Redress	205,800	205,800	205,800	205,800	205,800

Item	Annual Budget estimates (USD)				
	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027
Mechanism structures,					
Enhancing acquisition of ESSH safeguards statutory permits and certificates in respect of project components		3,346,700	57,200	57,200	
Strengthening stakeholder, institutional participation, and mindset change including protection of vulnerable groups	200,000	200,000	200,000	200,000	200,000
Project Closure Environmental and Social Audit.					150,000
Facilitating Implementation of ESMF (Ref. Section 7.3)	200,000	200,000	200,000	50,000	50,000
Total Annual Budget	2,993,000	6,453,800	2,712,700	2,308,300	2,173,900
GRAND TOTAL BUDGET FOR MGT OF E&S RISKS AND IMPACTS	**USD 16,472,600**				

Note: The figures provided are lump-sum budget estimates.

8.2 ESMF DISCLOSURE

This ESMF will be disclosed in compliance with relevant Ugandan regulations and the World Bank Environment and Social Framework. It will be disclosed by MAAIF at their Website and copies provided to all participating Districts and render the ESMF accessible to the project host communities. It will be disclosed at the Info shop of the World Bank and will also be available to any interested persons.

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10 ANNEXES

10.1 ANNEX 1: SCREENING FORM FOR POTENTIAL ENVIRONMENTAL AND SOCIAL ISSUES

Please type or print clearly, completing this form in its entirety. You may provide additional information on a separate sheet of paper if necessary. Kindly note that the information you are to provide is required by Section 110 of the National Environment Act, 2019.

a. Component under UCSAT-Proj	
b. Name of Subproject	
c. Sub-Project Objective	
d. Expected Commencement Date	
e. Location (District, Parish, Village)	
f. Proposed Main Project Activities	
g. Approximate size of land area available for the sub project and Ownership Status / Evidence (Land Title, Agreement, Community Contribution, etc)	
h. Estimated Sub-project cost UG.Shs	
i. Name, Title and Contact (Email & Tel) of Evaluator	

BRIEF DESCRIPTION OF THE PROPOSED PROJECT

EMPLOYEES AND LABOURERS

Number of people to be employed: Employees and Laborers	During Construction	During Routine Operation
Full-time		
Part-time		

DESCRIPTION OF PROCESS THAT COULD BE IMPLEMENTED

Briefly describe the type and nature or type of the project at the site.----------

---

List the type and quantity of raw materials to be used in the project and highlight their sources

Material	**Quantity**	**Source**

POTENTIAL ENVIRONMENTAL IMPACTS

Please indicate environmental impacts that may occur as a result of the proposed project.

A. The Biological Environment

The Natural Environment

Describe the habitats and flora and fauna in the project area and in the entire area expected to be affected by the sub-project (e.g., downstream areas, access roads):

a. Will the project directly or indirectly affect: Natural forest types? swamps? Wetlands (i.e., lakes, rivers, swamps, seasonally inundated areas)? Natural critical habitats (parks, protected areas)?
b. Other habitats of threatened species that require protection under Ugandan laws and/or international agreements? YES _____ NO ___
c. Involve drainage of wetlands or other permanently flooded areas? YES _____ NO _____
d. Reduce the quantity of water for the downstream users? YES _____ NO _____
e. Result in the lowering of groundwater level or depletion of groundwater? YES _____ NO _____
f. Are there according to background research/observations any threatened/ endemic species in the project area that could be affected by the project? YES _____ NO _____
g. Will vegetation be cleared? If yes, please state the distance/length/ha of affected area YES NO_____
h. Will there be any potential risk of habitat fragmentation due to the clearing activities? YES _____ NO
i. Will the project lead to a change in access, leading to an increase in the risk of depleting biodiversity resources? YES _____ NO _____
j. Will the project Divert the water resource from its natural course/location? YES _____ NO _____

Provide an additional description for "yes" answers:

Protected Areas

Does the subproject area or do subproject activities:

a. Occur within or adjacent to any designated protected areas? YES _____ NO
b. Affect any protected area downstream of the project? YES _____ NO ____
c. Affect any ecological corridors used by migratory or nomadic species located between any protected areas or between important natural habitats (protected or not) (e.g., mammals or birds)? YES _____ NO

Provide an additional description for "yes" answers:

Invasive Species

a. Introduce exotic plants or animals? YES _____ NO _____
b. Is the sub-project likely to result in the dispersion of or increase in the population of invasive? plants or animals (e.g., along distribution lines)? YES _____ NO ____

Provide an additional description for a "yes" answer:

B. The Physical Environment

Geology/Soils

Will slope or soil stability be affected by the project? YES _____ NO _____

Will the subproject cause physical changes in the project area (e.g., changes to the topography)? YES _____ NO

Will local resources, such as rocks, wood, sand, gravel be used? YES ____ NO _____

Could the subproject potentially cause an increase in soil salinity in or downstream the project area? YES NO

Could the soil exposed due to the project potentially lead to an increase in lixiviation of metals, clay sediments, or organic materials? YES _____ NO

Landscape / Aesthetics

Is there a possibility that the sub-project will adversely affect the aesthetics of the landscape? YES _____ NO

Pollution

Will the sub-project use or store dangerous substances (e.g., large quantities of hydrocarbons)?
YES _____ NO _____

Cause pollution of aquatic ecosystems by sedimentation and agro-chemicals, oil spillage, effluents, etc.?
YES _____ NO _____

Will the subproject produce harmful substances, or Create waste that could adversely affect local soils, vegetation, rivers and streams or groundwater? YES _____ NO _____

Will the subproject produce solid or liquid wastes? YES _____ NO _____

Will the subproject cause air pollution? YES _____ NO _____

Will the subproject generate noise? YES _____ NO _____

Will the subproject generate electromagnetic emissions? YES ____ NO _____

Will the subproject release pollutants into the environment? YES ____ NO _____

C. The Social Environment

Land Use, Resettlement, and/or Land Acquisition

Describe existing land uses on and around the sub-project area (e.g., community facilities, agriculture, tourism, private property, or hunting areas):

a. Are there any land use plans on or near the sub-project location, which will be negatively affected by subproject implementation? YES ____ NO _____
b. Are there any areas on or near the subproject location, which are densely populated which could be affected by the sub-project? YES _____ NO _____
c. Are there sensitive land uses near the project area (e.g., hospitals, schools)? YES ____ NO_____
d. Will there be a loss of livelihoods among the population? YES ____ NO __
e. Will the sub-project affect any resources that local people take from the natural environment? YES NO
f. Will there be additional demands on local water supplies or other local resources? YES NO
g. Will the sub-project restrict people's access to land or natural resources? YES ____ NO
h. Will the project require resettlement and/or compensation of any residents, including squatters? YES _____ NO _____ *(Please note that Subprojects with physical resettlement requirement/s are excluded from the project)*
i. Will the subproject result in construction workers or other people moving into or having access to the area (for a long time period and in large numbers compared to permanent residents)? YES ____ NO
j. Who is/are the present owner(s)/users of resources/infrastructures the subproject area?

_____

Loss of Crops, Fruit Trees, and Household Infrastructure Will the subproject result in the permanent or temporary loss of: Crops?

Fruit trees / coconut palms? Household infrastructure? Any other assets/resources?

Occupational Health and Safety, Health, Welfare, Employment, and Gender

a. Is the sub-project likely to safeguard worker's health and safety and public safety (e.g., occupational health and safety issues, COVID-19 risks)? YES _____ NO __
b. Will the project Cause poor water drainage and increase the risk of water related diseases such as malaria? YES _____ NO ___
c. How will the project minimize risk of HIV/AIDS?
d. How will the project minimize risks of COVID-19 infection and spread?

e. How will the sub-project minimize the risk of accidents? How will accidents be managed, when they do occur?
f. Is the project likely to provide local employment opportunities, including employment opportunities for women? YES _____ NO __
g. Provide an additional description for "yes" answers:

Vulnerable and Marginalized Groups

Please refer to the UCSATP Vulnerable and Marginalized Group Framework (VMGF), for guidance on identification of VMGs and development of VMG-Plans where necessary.

Historical, Archaeological, or Cultural Heritage Sites

Based on available sources, consultation with local authorities, local knowledge and/or observations, could the sub-project alter:

Historical heritage site(s) or require excavation near the same? YES ____ NO ____

Archaeological heritage site(s) or require excavation near the same? YES ____ NO _____

Cultural heritage site(s) or require excavation near the same? YES _____ NO ____

Graves, or sacred locations (e.g., fetish trees or stones) or require excavations near the same? YES _____ NO

N.B For all affirmative answers (YES) Provide description, possible alternatives reviewed and/or appropriate mitigating measures.

Note: ***At the bear minimum, if the answers to any of the above is 'yes', please include an ESMP with sub-project application.***

RECOMMENDATIONS

Environmental category: (tick where applicable)

Category (In line with ESF & Ug-NEA)	**Justification**
Exempt: Does not require further environmental or social *(Sections 113 (3) & 182 (2) & Schedule 11 of NEA) – Projects exempted from ESAs* studies	
Low/ Moderate Risk: Requires submission of only a Project Brief or ESMP *(Section 112 & Schedule 4 of NEA)*	
Substantial/ High Risk: Requires a full/Mandatory ESIA to be submitted on date *(Sections 49 (1&2), 113, 126(2), 176(1), 177(1) & 181(2) & Schedules 5, 6, 10 of NEA)*	
Requires a RAP to be submitted on date	
Requires an Indigenous Peoples Plan (IPP)	
Requires a Physical Cultural Resources Plan	
Requires a Pest Management Plan	
Requires a Security Management Plan	

CERTIFICATION BY THE SUB-COUNTY EXTENSION STAFF

(Agricultural/Fisheries/Environmental Focal Officer & Community Development Officer)

We certify that we have thoroughly examined all the potential adverse effects of this subproject and recommended appropriate Risk Categorization and E&S Instrument to be prepared/used.

Reviewer Title: ……
Name and Contact (EM + TEL): ……
Signature: ……
Date: ……

CERTIFICATION BY THE DISTRICT PIU

(District Environment Officer & District Community Development Officer)

We certify that we have thoroughly examined all the potential adverse effects of this subproject and recommended appropriate Risk Categorization and E&S Instrument to be prepared/used.

Reviewer Title: ……
Name and Contact (EM + TEL): ……
Signature: ……
Date: ……

CERTIFICATION BY THE MAAIF PCU

(Project Environmental, Health and Safety Specialist & Project Social Development Specialist)

We certify that we have thoroughly examined all the potential adverse effects of this subproject and recommended appropriate Risk Categorization and E&S Instrument to be prepared/used.

Reviewer Title: ……
Name and Contact (EM + TEL): ……
Signature: ……
Date: ……

10.2 ANNEX 2: ESIA PROCESS IN UGANDA, PREPARATION OF ESMP AND MONITORING PLAN

The ESIA Guidelines (NEMA 1997) and the ESIA Regulations 2020 recognize the following stages in an ESIA process: Project Brief formulation; Screening; Environmental impacts study; and Decision making. In addition, public consultation is required throughout the ESIA process.

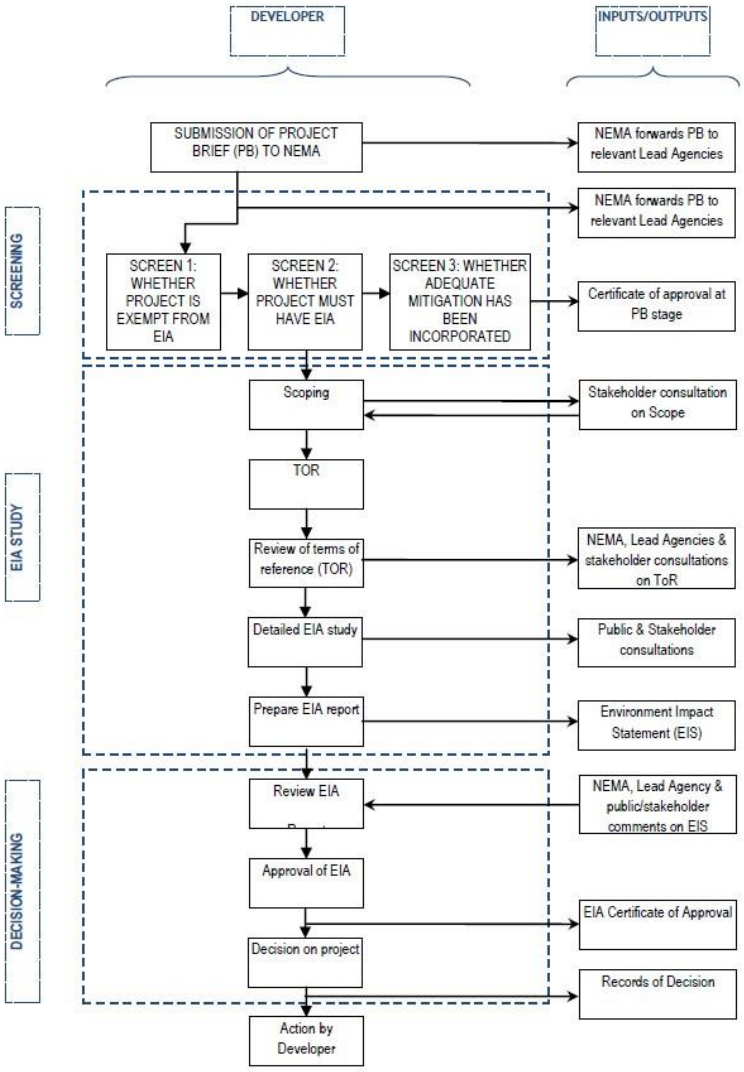


Figure 10-1: EIA Process in Uganda: (Source: EIA Guidelines for Uganda, 1997)

The EIA process in Uganda is described is initiated by the submission of a project brief –a document that contains the same type of information contained in the ESSF and a format for which is contained in the ESIA guidelines. Once the information is judged to be complete, NEMA requests comments from the lead agency and then screens the project.

The Executive Director has three options: (a) approve the proposed project, if the ESIA is not mandatory and the project brief includes adequate mitigation measures, or (b) request the developer to prepare an Environmental and Social Impact Study (ESIS) if a decision cannot be made on the basis of the project brief. If MAAIF has ascertained that the project is on the mandatory ESIA list, NEMA state that the project brief stage is normally omitted, moving straight into the ESIA process. If the decision is for an ESIS, the proponent obtains NEMA approval of the proposed ESIA consultant, conducts a scoping exercise, and agrees with NEMA on the study terms of reference. The study is conducted, and culminates in submission of an Environmental Impact Statement (ESIS) to NEMA for review and decision. Stakeholder consultation is mandatory at scoping, Terms of Reference preparation, during the environmental study, and preparation of the draft Environmental and Social Impact Statement (ESIS). The content of an ESIS, as specified in the EIA regulations, covers the recognized elements of environmental and social assessment good practice, including consideration of technical and site alternatives and induced and cumulative impacts.

PREPARATION OF PROJECT BRIEF/ ESMPS

Format of the Project Briefs / ESMPs

The National Environment (Environmental and Social Assessment) Regulations 2020, Sub-section 6 (5) provides that, the project brief shall contain the following information, in a concise manner:

a. a description of the proposed project, including the name, purpose and nature of the project in accordance with the categories in Schedule 4 of the Act;
b. the proposed location and physical boundaries, including a map and coordinates of the project clearly showing the projected area of land or air that may be affected by the project activities, or, if it is:
    i. a linear activity, a description of the route of the activity and an alternative route, if any; or
    ii. an activity on a water body, the coordinates within which the activity is to be undertaken;
c. an evaluation of project alternatives, including a zero or no-project alternative in terms of project location, project design or technologies to be used, and a justification for selecting the chosen option;
d. the design of the project and any other project related components and associated facilities, including the activities that shall be undertaken and a description of the major material inputs to be used during construction or development and operation of the project;
e. the estimated cost of the project evidenced by a certificate of valuation of the capital investment of the project, issued by a qualified and registered valuer;
f. the size of the workforce;
g. a description of the manner in which the proposed project and its location conform to existing laws, standards and international agreements governing the projects, including reference to relevant plans required under the Physical Planning Act, 2010 and Building Control Act, 2013;
h. an indication of permits, licenses or other approvals that may be required for the project;
i. baseline conditions of the physical, biological and socio- economic environment of the project area, including results of relevant studies and other geophysical and geotechnical studies;
j. a description of potential direct, indirect, induced, cumulative, transboundary, temporary and permanent environmental, health, social, economic and cultural impacts of the project and their severity, and the proposed mitigation measures to be taken during the planning, design, pre-construction, construction, operational and decommissioning phases of the project;
k. proposed mitigation and preparedness measures for potential undesirable impacts that may arise at project implementation, but were not contemplated at the time of undertaking the project brief;
l. a description of climate-related impacts associated with the project, including potential climate benefits and carbon footprints of the proposed project, as well as the potential vulnerability of the proposed project or activity to climate change, and the proposed adaptation and mitigation measures;

m. a description of alternative resettlement areas for project affected persons, if any, their associated environmental and social impacts, and or any plans for compensation to project affected persons;
n. an environmental management and monitoring plan developed in accordance with Regulation 46, incorporating climate adaptation and mitigation plan;
o. plan for stakeholder engagement throughout the proposed project or activity development, including details on how to address potential related grievances or requests for information, and evidence of stakeholder consultation; and
p. any other information required by the Authority or lead agency.

If the Executive Director is satisfied that the project will have no significant impact on the environment, or that the Project Brief discloses sufficient mitigation measures to cope with the anticipated impacts he may approve project. The Executive Director of NEMA or his delegated official shall then issue a Certificate of Approval for the project. However, if the Executive Director finds that the project will have significant impacts of the environment and that, the Project Brief does not disclose sufficient mitigation measures to cope with the anticipated negative impacts, he shall require that, the developer undertakes an ESIA for the planned project.

Summary Guidelines/ Steps for Preparation of ESMPs/ PBs as described above

Introduction: The EA process involves the identification and development of measures aimed at eliminating, offsetting and/or reducing environmental and social impacts to levels that are acceptable during implementation and operation of the projects. As an integral part of EA, ESMP provides an essential link between the impacts predicted and mitigation measures specified within the EA and implementation and operation activities. While there are no standard formats for ESMPs, it is recognized that the format needs to fit the circumstances in which the ESMP is being developed and the requirements, which it is designed to meet. UCSAP shall prepare standard ESMP in a format suitable for inclusion as technical specifications in the contract documents. ESMPs should be prepared after considering comments and clearance conditions from both the relevant agency providing environmental clearance and WB. Given below are the important elements that constitute an ESMP.

Description of Mitigation Measures*:* Feasible and cost-effective measures to minimize adverse impacts to acceptable levels should be specified with reference to each impact identified. Further, the EMP should provide details on the conditions under which the mitigation measure should be implemented. The EMP should also distinguish between the type of solution proposed (structural and non-structural) and the phase in which it should become operable (design, construction and/or operation). Efforts should also be made to mainstream environmental and social aspects wherever possible.

Monitoring Programme: In order to ensure that the proposed mitigation measures have the intended results and comply with national standards and World Bank requirements, an environmental performance monitoring program should be included in the EMP. The monitoring program should give details of the following:

- monitoring indicators to be measured for evaluating the performance of each mitigation measure (for example: national standards, engineering structures, extent of area replanted, etc).
- monitoring mechanisms and methodologies
- monitoring frequency
- monitory locations.

Institutional Arrangements: Institutions/parties responsible for implementing mitigation measures and for monitoring their performance should be clearly identified. Where necessary, mechanisms for institutional coordination should be identified, as often, monitoring tends to involve more than one institution.

Implementation Schedules: Timing, frequency and duration of mitigation measures with links to the overall implementation schedule of the project should be specified.

Reporting Procedures: Feedback mechanisms to inform the relevant parties on the progress and effectiveness of the mitigation measures and monitoring itself should be specified. Guidelines on the type of information wanted and the presentation of feedback information should also be highlighted.

Cost estimates and sources of funds: Implementation of mitigation measures mentioned in the EMP will involve an initial investment cost as well as recurrent costs. The EMP should include cost estimates f into the sub-project design, bidding and contract documents to ensure that the contractors will comply with the mitigation measures. The costs for implementing the EMP will be included in the sub-project designs.

Environmental Screening

The purpose of screening is to assist categorize the type of ESIA required for the project i.e. does it require a full ESIA, a Project Brief or no ESIA at all is required. This is important to enable the application of the appropriate ESIA level based on the project's anticipated levels of significant impacts as elaborated in the National Environment (EIA) Guidelines 1997.

Scoping and Preparation of ToRs

Scoping is the initial step in the ESIA process. Its purpose is to determine the scope of work to be undertaken in assessing the environmental impacts of the proposed project. It identifies the critical environmental impacts of the project for which in-depth studies are required, and elimination of the insignificant ones. The scoping exercise should involve all the project stakeholders so that consensus is reached on what to include or exclude from the scope of work. It is also at this stage that project alternatives are identified and taken into consideration. The contents of the scoping report are the same as the project brief; however, more detail is likely to be needed. This may involve some preliminary data collection and fieldwork. The Developer takes the responsibility for scoping and prepares the scoping report after consultation with NEMA, Lead Agencies and other stakeholders. The developer with assistance from technical consultants will draw up the ToRs for the ESIS and submit a copy to NEMA that shall in turn be forwarded to Lead Agencies for comments, in this case including the District Environment Officer.

Preparation of the ESIS

In preparing an ESIS, relevant information is collected on issues of real significance and sensitivity. These are then analysed, mitigation measures developed for the adverse impacts and compensatory measures recommended for unmitigated environmental impacts. Measures aimed at enhancing beneficial or positive impacts are also given. An ESIS documents the findings and is submitted to NEMA by the developer.

Review of ESIS and Decision on Project

The Developer is required to submit ten (10) copies of the ESIS to NEMA for review and approval. NEMA then forwards a copy to the Lead Agencies for comments. NEMA in consultation with the Lead Agencies shall review the contents of the ESIS, paying particular attention to the identified environmental impacts and their mitigation measures, as well as the level of consultation and involvement of the affected stakeholders in the ESIS process. In this review, the level to which the ToRs set out for the study is addressed shall be considered. In deciding about the adequacy of the ESIS, NEMA shall consider the comments and observations made by the Lead Agencies, other stakeholders and the general public. NEMA may grant permission for the project with or without conditions, or refuse permission. If the project is approved, the Developer will be issued a Certificate of Approval.

Environmental and Social Management Plan-ESMP

The ESMP is intended to ensure efficient management of environmental and social issues in subprojects. The ESMP consists of:

a. The relevant project activities;
b. The potential negative environmental and social impacts;
c. The proposed mitigating measures;
d. The institutions responsible for implementing the mitigation measures;
e. The institutions responsible for monitoring the implementation of the mitigation measures and the frequency of the afore-mentioned measures;
f. Capacity building needs; and

g. The cost estimates for these activities.

In cases where the UCSAT Project is likely to have sub-projects which are small in nature without significant environmental impacts, an ESMP will be prepared and will outline specific actions to mitigate these impacts and conforming to the obligations stipulated in the screening exercises, and all legal instruments in force. At the time of the implementation of the sub-projects, the potential environmental and social impacts must be clearly identified and a management plan formulated, implemented and the plan's performance monitored during and after execution of sub-project activities. The impacts must be avoided or neutralized where possible or mitigated in conformity with Uganda's and the World Bank's prescriptions for sound environmental management.

Environmental Management and Monitoring Plan

Monitoring is the continuous and systematic collection of data in order to assess whether the environmental objectives of the project have been achieved. Good practice demands that procedures for monitoring the environmental performance of proposed projects are incorporated in the ESIS. Monitoring provides information on the occurrence of impacts. 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 impacts are monitored is discussed below.

a. Responsibilities in terms of the people, groups, or organizations that will carry out the monitoring activities be defined, as well as to whom they report amongst others. In some instances, there may be a need to train people to carry out these responsibilities, and to provide them with equipment and supplies;
b. Implementation schedule, covers the timing, frequency and duration of monitoring are specified in an implementation schedule, and linked to the overall sub project schedule;
c. Cost Estimates and source of resources for monitoring need to be specified in the monitoring plan;
d. Monitoring methods need to be as simple as possible, consistent with collecting useful information, so that the sub project implementer can apply them.
e. The data collected during monitoring is analyzed with the aim of:
f. Assessing any changes in baseline conditions;
b. Assessing whether recommended mitigation measures have been successfully implemented;
a. Determining reasons for unsuccessful mitigation;
b. Developing and recommending alternative mitigation measures or plans to replace unsatisfactory ones; and
c. Identifying and explaining trends in environment improvement or degradation.

Recommended Format (to be modified as applicable to each sub-project)

Relevant environmental authority:							
Reporting Dates:							
Project District:							
Sub-Project/s:							
Subproject title	Activities	Project phase	Environmental l. Risks	EIA / EMP Completed?	Environmental Permit granted?	Effectiveness of ESMP	Issues
name, location, title or reference (example)	New construction, rehabilitation, maintenance	See note below	Severe, Serious, Indicative	Yes, No or N/A	Yes, No or N/A	Good, poor, or needs improvement	See note below
Sub-projects rejected:							
Subproject title		Activities		Reasons for rejection		Remarks	

NB: Subproject phase will be one of the following: (a) under project preparation or appraisal, (b) appraised, or (c) implementation and ***(d) Issues***: accidents, litigation, complaints or fines are to be listed e.g. if an environmental permit was not granted, explain why?

Public Consultation

The environmental impacts or effects of a project will often differ depending on the area in which it is located. Such impacts may directly or indirectly affect different categories of social groups, agencies, communities and individuals. These are collectively referred to as project stakeholders or the public. It is crucial that during the ESIA process, appropriate mechanisms for ensuring the fullest participation and involvement of the public are taken by the developer in order to minimize social and environmental impacts and enhance stakeholder acceptance. An effective consultation process should generally ensure that:

a. The public has a clear understanding of the proposed project; and

b. Feedback mechanisms are clearly laid out and known by parties involved.

Different s t a g e s of the ESIA process require different levels of public consultation and involvement. The key stages are:

a. Public consultation before the commissioning of the ESIS;

b. Public consultation during the ESIS; and

c. Public consultation during ESIS review.

Consultation can be before, during the ESIA study or during its review as outlined below:

Consultation before the ESIA

On submission of the project brief to NEMA, it might be decided that views of the public on the project is sought. NEMA is obliged to publish the developer's notification and other relevant documents in a public notice within 4 weeks from the date of submission of the project brief and/or notice of intent to develop. It is important therefore, that a plan for stakeholder involvement is prepared before the ESIS begins. Such a plan should consider:

a. The stakeholders to be involved;

b. Matching of stakeholders with approaches and techniques of involvement;

c. Traditional authority structures and political decision-making processes;

d. approaches and techniques for stakeholder involvement;

e. Mechanisms to collect, synthesize, analyze and, most importantly, present the results;

f. To the ESIS team and key decision-makers;

g. Measures to ensure timely and adequate feedback to the stakeholders; and

h. Budgetary/time opportunities and constraints.

Pubic consultation during the ESIS

During the ESIS, the study team should endeavour to consult the public on environmental concerns and any other issues pertaining to the project. Though consultations are very critical at the scoping stage, ideally, it should be an on-going activity throughout the study. During the ESIS review, the public is given additional opportunity for ensuring that their views and concerns have been adequately addressed in the ESIS. Any earlier omissions or oversight about the project effects can be raised at this stage. To achieve this objective, the ESIS and related documents become public after submission to NEMA. An official review appointment will be announced, where the reviewing authority has to answer questions and remarks from the public. These questions have to be handed in writing prior to the meeting.

10.3 ANNEX 3: PEST MANAGEMENT PLAN

Since ESS3 Resource Efficiency and Pollution Prevention and Management is relevant to the UCSAT project mainly due to the likelihood of use of agrochemicals (pesticides, fertilizers, herbicides, acaricides, etc) to boost both crop and animal husbandry, a Pest Management Plan (PMP) has been prepared as part of this ESMF to provide specific guidance on PMP practices. However, the use of pesticides will be limited/moderate and thus the likely amounts of pesticides to be used by the project will not be extensive since the project will promote the use of integrated approaches to management of pests. Therefore, the overall likely environmental impact will be of moderate magnitude and intensity, site specific at specific farmer sites. A stand-alone PMP was therefore deemed not necessary. The simplified PMP prepared as part of this ESMF is meant to enhance PM by the project to ensure a guided acquisition, storage, handling and application of pesticides. The plan includes development of comprehensive strategies for handling, transportation, application and disposal of pesticides in compliance with national and international requirements relating to different agrochemicals. The PMP addresses relevant stakeholder concerns about pests and pesticides. It stresses the need to monitor and mitigate negative environmental and social impacts of the project (which includes the use of pesticides) and emphasizes the need for an integrated approach to the management of pests in line with Uganda's strategies on IPM adoption as well as World Bank requirements on pest management and makes provision for adequate measures to enable the Project sustain the adoption of IPM techniques.

In terms of guiding implementation of UCSATP, the Project Operational/Implementation Manual is recommended to incorporate guidelines that clearly stipulate procedures for acquisition, storage, handling, application and disposal of pesticides. For purposes of this ESMF, the following basic guidance and information is provided as PMP:

Key Elements of UMFSNP-AF PM Plan

The key elements of the UCSATP PMP include the following:

a. Preventing pest problems;

b. Monitoring for the presence of pests and pest damage;

c. Establishing the density of pest population, which may be set at zero, that can be tolerated or corrected with a damage level sufficient to warrant treatment of the problem based on health, public safety, economic or aesthetic threshold;

d. Treating pest problems to reduce population below those levels established by damage thresholds using strategies that may include biological, cultural, mechanical and pesticidal control methods and that shall consider human health, ecological impact, feasibility and cost effectiveness; and

e. Evaluating the effects and efficacy of pest treatments.

Decision Making - Detecting a single pest under the Project will not always mean control is needed. A decision to use pesticides will be taken only as the very last resort and will also be based on conclusions reached from an agro-ecosystem analysis and trials. The decision under UCSATP will also depend on the number of pest and diseases found in the respective crop and the level of damage they are doing. If it is absolutely necessary to spray crops with pesticides, use of selective rather than broad-spectrum pesticides shall be strictly observed.

Procurement of Pesticides

The following criteria will apply to the selection and use of pesticides in activities under UCSATP:

a. Pesticide financed under UCSATP must be manufactured, packaged, labeled, handled, stored, disposed of, and applied according to standards that, at a minimum, comply with the FAO's guidelines on pesticides.

b. Consistent with World Bank ESS3, UCSATP financing will not be used for formulated products that fall in WHO classes IA and IB, or formulations of products in Class II, if (a) the country lacks restrictions on their distribution and use; or (b) they are likely to be used by, or be accessible to, lay personnel, farmers, or others without training, equipment, and facilities to handle, store, and apply these products properly.

c. UCSATP financing will not be used for any pesticide products which contain active ingredients that are listed on Annex III of the Rotterdam Convention (on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade), unless the Country has taken explicit legal or administrative measures to consent to import and use of that active ingredient.

d. UCSATP financing will not be used on any pesticide products which contain active ingredients that are listed on Annex A & B of the Stockholm Convention on Persistent Organic Pollutants, unless for an acceptable purpose as defined by the Convention, or if an exemption has been obtained by the Country under this Convention.

Procurement Challenges by Farmers

Challenges associated with direct procurement of pesticides by smallholder farmers in Uganda include the proliferation of illegal imports by unscrupulous private companies and the presence of unlicensed dealers. There are many fake or adulterated pesticides on the market. However, purchase of pesticides through ACEs presents a solution to this problem.

DISTRIBUTION OF PESTICIDES

Cluster Stores -Pesticides will be stored at one Cluster Store under the project and will then be dispersed to each District Store when need arises. The stores will have to be maintained in good condition with all the required facilities for proper storage as detailed in the next Section. Storage facilities in each District will help alleviate the crowding at the Cluster Store and to reduce the travel distances to the Parish facilities. UCSATP will use the same cluster stores to acquire pesticides.

Distribution downstream - To help facilitate the accounting of specific stock of pesticides and other logistics, record for each type of stock (i.e., pesticides, gloves – number and date bought, number and date dispersed to each Parish, number and date returned at end of spray cycle, etc.). This will ensure good accountability and record keeping of pesticide at the Parish level, from dispersal to collection of empty containers at the end of the day. Each Parish store manager or Distributor will have to count out and document the required number of sachets or bottles to be distributed to the Farmers/ Spray Leaders, who in turn will count out and document the sachets and bottles allocated to each Farmer/ Group. At the end of the day, the process will be repeated and the used and unused sachets or bottles will be collected and recorded.

Pesticides Usage Records -Under circumstances where MAAIF will directly procure pesticides for distribution to the farmers, it will be required to maintain records of all pesticides annually applied under the project. In cases where farmers undertake direct purchase of the pesticides in the open (guided) market with the guidance of the respective Sub-County Extension Staff (Agricultural Officers, Veterinary Officers, Fisheries Officers, etc), all farmers/groups shall be encouraged to keep records as

appropriate and guided on the use and disposal of arising waste, through periodic project trainings and capacity development programme throughout project implementation.

Pesticide Use Issues –Farmer Groups are likely to misuse pesticides in at least six different ways:

a. Spraying too close to harvest, thus contaminating the crop after harvest;
b. Applying the wrong dosage, often over-applying. Farmers often spray hazardous insecticides like organochlorines over five times in a season when two or three times can be sufficient;
c. Applying pesticides intended for cash crops to growing food crops;
d. Spraying pesticides intended for growing crops on stored crops;
e. Using obsolete or expired pesticides;
f. Improper disposal of empty pesticides containers and packaging;
g. Mixing different chemical pesticides together;
h. Inadequate or non-use of required PPE in handling and applying pesticides;
i. Insufficient or lack of knowledge on pesticides use and management by most farmers; and
j. No use of PPE.

RULES AND PROCEDURES FOR SAFE APPLICATION OF PESTICIDES

All farmers shall be trained in the safe and responsible use of pesticides by Extension Officers (Agriculture, Veterinary), Community Development Officers and District Environment Officers.

Safety and Protection**:** There are certain measures which should always be undertaken by pesticide operators to help protect against contamination during the handling and application of pesticides. These measures should always be followed.

Reading and understanding labels- The first principle is to always read and follow the label recommendations on the pesticide container. If the label information cannot be read or understood for any reason, then the operator should find someone who can explain the instructions to him. Apart from the written instructions, the operator should also look for pictorial information on the label which will indicate the degree of hazard presented by the pesticide formulation. Similarly warning symbols, such as skull and crossbones, give information on the type of chemical hazard.

Avoiding contamination **-** Direct exposure of the skin, nose, mouth or eyes should be avoided or minimized when working with pesticide products to reduce the chances of personal contamination. When pouring and mixing the concentrated product, every effort should be made to avoid splashing or spilling onto skin or clothing. If any product falls on the skin, or into the eyes, then this should be washed off as soon as possible. The likelihood of contamination can be greatly reduced by using suitable equipment for measuring out and transferring the product. In particular the hands must never be used as scoops nor should the hands or arms be used to stir liquids.

Personal hygiene **-**Another basic principle of personal protection is good hygiene when working with pesticides. This is to ensure that if any contamination occurs then it is removed in good time. In addition, personal habits will help avoid direct contamination in itself.

Safety gear-For the effective safety and protection of the workers handling agro-chemicals, the provision of the following is deemed necessary.

- Helmet or cloth cap
- Safety spectacles, goggles or face shield (attached to helmet)
- Dust or light fume masks
- Emergency vapor masks or half-face respirators with organic vapor cartridges
- Nitrile rubber or neoprene gloves or gauntlets

- Overalls
- Nitrile rubber or neoprene aprons
- Strong rubber or neoprene boots

Use, Handling, storage, transportation and disposal of pesticides

- Personal protective equipment (PPE) is the last line of defense against pesticide exposure.
- The correct PPE must be used for the type of pesticide, and it must be fitted and maintained properly.
- Pest control businesses should consider having a PPE program as part of their risk management strategy.
- Read the entire label before purchasing or using a pesticide, even if you have used the pesticide before.
- Do not rely on your memory for the very specific safety and use information provided on labels.
- Identify the specific pest to determine the proper treatment.
- If you absolutely need to use a pesticide, buy the least toxic pesticide recommended for your specific pest.
- The signal word on pesticide labels indicates the level of toxicity.
- Use only the amount needed to control the specific pest at that time.
- Make sure the pesticide is designated for use on the specific pest you are trying to control.
- Follow label directions carefully for preparation and application of pesticides
- When mixing or using pesticides, wear clothing that covers the skin, unlined heavy rubber gloves, rubber footwear, hat and chemical splash goggles.
- An air-purifying respirator may also be required if an inhalation hazard exists.
- Safety equipment should be cleaned and dried after each use and stored separately from pesticides.
- Mix only the amount of pesticides you need. Mix or dilute pesticides outdoors or in a well-ventilated area.
- Do not spray pesticides outdoors on a windy day.
- When spraying outdoors, close the windows to your home.
- Do not water pesticide-treated areas immediately after application unless directed to do so by label directions.
- Pregnant women should avoid exposure to pesticides.
- Do not use pesticides near children or pets.
- Any clothing contaminated with pesticides should be washed separately from other laundry.
- First, rinse clothing outdoors with a hose or in a washing machine pre-soak.
- Use hot water (140 degrees Fahrenheit) to launder, a full water level setting, and the normal wash cycle.
- Heavily contaminated clothing should be discarded.
- Disposable protective clothing is available through safety equipment suppliers.

Safe storage of pesticides

- To reduce storage problems, buy only enough pesticide for one season's use.
- Keep pesticides in their original containers with the labels intact.
- Store in a separate, locked or other secure structure, away from children and pets.
- Do not store pesticides near food, medical supplies or cleaning products.
- Do not store pesticides near water supplies.
- Flammable pesticides should be stored away from sources of heat, flame, or spark and fuel station.
- Store pesticides in a dry area to prevent the deterioration of containers.
- Inspect pesticide containers frequently for damage.
- Protect the label. Store substances in their original containers.
- If an item is not in its original container, clearly label the current container with the product's name and expiry date.
- Place the word DANGER on the container.
- If the product is in a rusting metal or a breakable container, this container should be placed within a larger, plastic container.
- The plastic container should be over-packed with a non-flammable absorbent, such as clay-based kitty litter, to help contain any possible leaks.
- Warning: Using flammable materials such as non-clay kitty litter or newspapers for overpacking may lead to spontaneous combustion (fire)
- Clearly label the outside container with the contents and date.
- Unless the pesticide is banned or restricted, it should be completely used up according to label directions.
- Empty containers should be transported back to District Head-Quarters and MAAIF main store and pressure rinsed or crashed and packed in one separate store until national disposal program launches.
- To triple rinse, fill the container 1/4 full of water, close it tightly, and shake.

Safe transportation of pesticides

- Take maximum care when:
  -choosing vehicles for transporting pesticides
  -loading pesticides (use pickup vehicles or big track with non-porous beds)
  -unloading pesticides (never leave pesticides unattended, inspect vehicles for leakage…)
- Never transport pesticides with food, feed, animals, poultry, seeds, grains, consumer goods…
- Always carry “a spill kit” which contains shovel, PPE, sorbent pads and absorbent materials…
- In case of spill ups, control, contain and cleanup the spillage thoroughly
- Keep the cleaned spillage with a plastic container for proper disposal.

MANAGEMENT OF WASTE FROM PESTICIDES USAGE

Waste management shall be undertaken in line with Uganda’s Waste Management Regulations, National Environment Act 2019, World Bank’s ESF (ESS-3 Resource Efficiency), FAO guidelines on Safety and environmental precautions, and the World Bank Group General EHS Guidelines.

Waste Streams

Generation of solid waste is anticipated by project activities. The following waste streams are expected:

i. Empty pesticide containers, after emptying storage containers. Improper handling of packaging materials for the inputs may lead to littering and solid waste nuisance and pollution of the surrounding environment. In addition, care should be taken as packaging of pesticides is deemed hazardous waste.
ii. Obsolete/ expired pesticides, in the event that pesticides with short shelf-life are procured and or get expired while in store.
iii. Excess pesticides, as a result of procurement of more than required quantities.
iv. Pesticides contaminated materials, arising from handling and application of pesticides, and such waste may stray into communities, requiring communities to be taught to manage, report, handle and dispose of solid waste originating from spraying operations.
v. Accidental spillages and disposal while in storage, transportation and/or application.
vi. Other possible wastes include the construction related waste from the construction or establishment of storage areas, though such works are not expected to be intensive.

Waste Management Measures to be implemented by MAAIF

- Management and control of pesticides shall be undertaken by extension workers at the grassroots (Agricultural Officers, Veterinary Officers, Community Development Officers, Water Officers, District Natural Resources Officers, District Environment Officers) to avoid people getting poisoned in the process. This shall be supervised by the PIU at MAAIF;
- Relevant aspects of waste avoidance and minimization shall be implemented and these include the following measures: (i) management of stocks in an effective, efficient, and transparent way (ii), adequate design of pesticide storage, handling, and management facilities - storage facilities shall have provision for containment of spillages;
- Inbuild in the procurement process and contracts arrangements to return excess pesticides to point of origin/ source, for final disposal;
- MAAIF will ensure that pesticides procured by farmers, or the project are manufactured, formulated, packaged and labelled as per the FAO guidelines and/or WBG General EHS guidelines;
- MAAIF shall designate temporal waste holding areas before disposal in an environmentally sound manner (e.g. packaging containers) and these should be fenced to control and avoid unauthorized access;
- MAAIF to ensure disposal of generated waste following Uganda's Environmental Agency's guidance and at designated facilities;
- The location of the pesticide storage will include proper siting and design of the storage facilities and providing equipment and facilities for containing possible spillage, protecting the pesticides from direct sunlight/rains, and having checklist/form to manage stock movement in and out of the stores.
- MAAIF will adopt WHO/FAO guidelines on management options for empty pesticides containers. The project will ensure that empty pesticides containers/drums are disposed safely through systematic rinsing and crushing on site and are not given to members of the community for their use. Any unintended risks of pesticide spraying should be communicated to communities in appropriate language, form and via media to avoid adverse health effects on the community.
- Waste shall be segregated to separate hazardous from non-hazardous wastes;

- Waste disposal by burning should not be permitted and signage should be erected. No disposal / dumping of waste shall be undertaken in fragile ecosystems such as wetlands, forests, etc. Waste shall be disposed of at designated areas, with approval of local authorities and NEMA.
- MAAIF will implement emergency preparedness measures in case of significant waste spills or other health and safety related incidents;
- Trainings for the project PIU/teams, including District Local Government should incorporate the aspects of waste collection, handling, transport, treatment and final disposal; and
- The project should conduct regular sensitization and awareness sessions at the local communities and schools to ensure they know how to recognize and report the waste generated by project activities to District Local Government Authorities.

Instructions on use of PPEs

Wear protective equipment as described in Table 10-1 below:

Table 10-1: Summary on correct usage of PPEs

Equipment	Protection	How to wear it
Coveralls	There are two types of coveralls: disposable and reusable. Disposable coveralls are lightweight and comfortable on warm days. They can be worn for mixing and applying pesticides, and then discarded at the day's end. If they become contaminated, they should be discarded at once. The second type of coverall is made of washable fabric and may be reused many times. These fabric coveralls are adequate for use with all but the most highly toxic and concentrated pesticides.	Button (or zip) right up to the neck. Loose coveralls around the neck will suck and blow pesticide in and out of the interior of the coveralls as you bend and move. Wear coveralls over a long-sleeved shirt and pants.
Aprons	When pouring or otherwise handling concentrated pesticides, it makes good sense to wear protection in the form of an apron. The apron protects the front of your body from spills or splashes of the concentrate. The apron should be made of rubber or synthetic liquid-proof material that will resist the solvents used in formulating the pesticide.	Make sure the apron covers your body from your chest to your boots.
Gloves	Protect your hands by wearing chemical- resistant gloves. Neoprene gloves provide the best protection. Natural rubber gloves may be used when handling organo-phosphorus or carbamate pesticides. Be sure that they are designed for use with solvents and pesticides. Never use lined gloves, gloves with wristbands or leather gloves.	Put gloves on and roll up the first inch or two of the cuff. That way when you lift your hands, any liquid on the gloves won't drip down your arms.
Hats	Use a chemical-resistant hat, preferably made of washable plastic. The hat may be a hard hat or made of flexible plastic. In either case, it should have a plastic sweatband. Wash and dry entire hat after each use and before storing. Ordinary baseball caps with cloth	Even small amounts of moderately or slightly toxic pesticides may cause severe skin irritation or other illness if exposure continues for several days. Please always wear the hat

Equipment	Protection	How to wear it
	sweatbands are dangerous as they absorb the pesticide and re-contaminate the forehead each time you wear them.	(complete gear) however little there is to spray/ apply.
Boots	Wear chemical-resistant, unlined boots. These boots are available in a variety of styles and materials. Neoprene boots are the best. Knee-length boots offer greater protection because they extend above the lower end of the apron. Avoid leather or fabric boots and shoes because these will absorb pesticides and cannot be cleaned effectively.	Wear your trouser legs outside the top of your boots. This will prevent spills and splashes from running into the boot and onto your leg.
Goggles	Chemical-resistant goggles keep your eyes safe from both splashing and, if using dry formulations, dusts or granules. Don't use goggles with cloth or elastic headbands as these will absorb pesticides.	Wear goggles snugly on your face so that the sides of your head are protected from splashes. If you wear glasses, make sure you purchase goggles that fit snugly over them. Never wear contact lenses when working around pesticides.
Respirators	Only approved respirators should be used. Do not exchange parts of different respirators. (For example, do not use a cartridge produced by Company "A" with a respirator produced by Company "B" as the combination may not provide adequate protection to the user). Dust masks are ineffective in protecting against herbicide vapors. Similarly, the filters on tractor cabs are intended to remove dust and are not designed to protect against herbicide vapors or mists. Chemical cartridge respirators are recommended for outdoor use when mixing and applying herbicides.	When carrying out operations, change filters each day. The cartridge should be replaced when chemical odor becomes apparent or when breathing becomes difficult. New cartridges should always be installed at the beginning of the spray season. Prior to commencing work, check the face seal while the respirator is on the wearer's face. Regardless of design, respirators cannot be worn securely by people wearing beards, moustaches or sideburns.
Face Shields	Goggles offer some protection, but frequently full-face protection is advised or required according to the pesticide label. It is especially important to protect your eyes and face when pouring or mixing liquid concentrates. Effective face shields are made of clear plastic.	Since the shield attaches to the hard hat, you can raise or lower it as needed.

Note: The key danger times are during mixing and when walking through the spray path. Eye and feet protection are the greatest priority. Goggles, long pants, and rubber boots are most needed. Due to the use of knapsack sprayers by small-scale farmers and being unaccustomed to wearing

protective equipment, only pesticides which meet World Bank standards of minimum mammalian toxicity ("least toxic"), yet still effective, will be recommended for use under the project.

Records Keeping

All records will have to be documented as soon as possible but no later than 14 days following completion of each pesticide application in a treatment area. On or before the 14th day after any pesticide application, a copy of the below information will need to be on file with the Extension Workers. Information for each treatment area to which pesticides are discharged as follows:

a. Surveillance methods used, dates of surveillance, and findings of surveillance
b. Target pest(s) and explanation of the need for pest control
c. Pest or site-specific action thresholds prior to pesticide application
d. Description of pest management measures implemented prior to the first application
e. Company name and contact information for pesticide applicator
f. Pesticide application dates and time of day of application
g. Description of treatment area, including location and size of treatment area and identification of any waters
h. Name of each pesticide product used to include ACB registration number
i. Quantity of pesticide applied
j. Concentration (%) of active ingredient
k. Effective concentration of active ingredient
l. Any unusual or unexpected effects identified to non-target organisms
m. Was a visual assessment conducted? Was it done during or post pesticide application, if not explanation why not?
n. Assessment of environmental conditions relating to proper pesticide use

PEST MANAGEMENT PLAN IMPLEMENTATION

Key Strategies

The project will adopt the following programmes and strategies to achieve an effective pest and pesticide management process:

a. Formation of a Safeguards Team
b. Registration and training of all interested pesticide distributors/resellers under the Project
c. Education and awareness creation on safe pesticides use
d. Pests Monitoring and Surveillance Measures
e. IPM Capacity Building
f. Institutional Capacity Building and Training
g. Training of farmers in IPM and safe pesticide use

h. Participatory Monitoring and Evaluation

Key Recommended Interventions

a. Pest surveillance systems need to be urgently established or bolstered in Uganda to avert the socio-economic disasters that can be caused by plant pests and diseases;

b. Smallholder farmers need to have more reliable and timely access to agricultural advisory and extension services to provide them with the knowledge on how to identify and deal with pests and diseases;

c. Registration of pesticide distributors and resellers and to train them in safe pesticide management;

d. Setup Collection Centers where farmers across the Districts can return empty pesticides container for onward transmission for safe handling and disposal. The collections of empty containers will be a direct responsibility of the Local Government Authority;

e. Need for MAAIF to consider construction of a pesticide disposal facility in Uganda.

EMERGENCY PREPAREDNESS AND RESPONSE PROCEDURE

Given the environmental, health and safety risks and impacts (both occupational and community based) that may arise from the use and management of pesticides, there is need to develop and implement measures to address emergency events. An emergency event is an unanticipated incident, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different reasons, including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather or lack of early warning. The measures are designed to address the emergency event in a coordinated and expeditious manner, to prevent it from injuring the health and safety of the workers and the community, and to minimize, mitigate and compensate for any impacts that may occur. During project implementation, MAAIF shall develop site specific Emergency Response Plans based on the specific sites where pesticides and/or agro-chemicals shall be applied, alongside the respective site-specific Pest Management Plans, following the framework guidance provided below:

An Emergency Response Plan (ERP) at the storage sites will include the following, as appropriate:

a. engineering controls (such as containment, automatic alarms, and shutoff systems) proportionate to the nature and scale of the pesticides spill hazard;
b. identification of and secure access to emergency equipment available on-site and nearby;
c. notification procedures for designated emergency responders;
d. diverse media channels for notification of the workers, affected community and other stakeholders;
e. a training program for emergency responders including drills at regular intervals;
f. public evacuation procedures;
g. designated coordinator and/or Environmental, Health and Safety Specialist for ERP implementation; and

h. measures for restoration and cleanup of the environment following any major accident.

Given the anticipated low – moderate use of pesticides, it is unlikely that the project will establish or facilitate establishment of any pesticides storage site. The ERP at storage sites has been provided just in case a storage area is established. MAAIF, the District and Sub-county Coordination Teams will assist and collaborate with affected workers, communities, relevant government agencies and other relevant parties in their preparations to respond effectively to an emergency event, especially where their participation and collaboration will be an important part of an effective response. The ERP will be reviewed on a regular (monthly) basis and confirm that it is still capable of addressing the potential range of emergency events that might arise in connection with the project. This is necessary to identify and address any emerging risks and impacts during implementation, including updating key contact operational contacts/ persons (which will include telephone contacts of Project Coordinator, Environmental-Health and Safety specialist, Sociologist, District Contacts, nearest Health Center contacts, etc. MAAIF will support affected workers, communities, relevant government agencies and other relevant parties through training and collaboration and will conduct such training in conjunction with the training provided to project workers as part of the OHS requirements.

Handling Pesticides Spills

In accordance with FAO guidelines, any accidental insecticides spills need to be cleaned up immediately to avoid further contamination. If spills occur:

a. keep people and animals away from the contaminated site;
b. remove damaged packages and place them on bare ground (or use portable bunding, if available), away from dwellings and water supplies;
c. use soil or sawdust to absorb liquids, sweep up carefully and bury in a place where there is no possibility of contamination of wells and waterways;
d. thoroughly wash down all contaminated parts of the vehicle, away from wells and waterways;
e. wear protective clothing during clean-up operations. Larger spills should be contained with a soil wall to limit the area affected and prevent contamination of waterways. Ensure that the contaminated site is closed off to people and livestock. Then immediately contact MAAIF headquarters so that a largescale clean-up operation can be initiated.

***Handling Insecticide poisoning*:** Even when all efforts have been made to reduce insecticide exposure, and appropriate personal protective equipment is used, insecticide poisoning cannot be excluded. Unfortunately, the signs and symptoms of insecticide poisoning are often not very specific and may also be the result of other health problems. This means that field staff should be vigilant. If doubts exist as to whether symptoms are related to insecticide use or not, the affected person should stop handling the product.

Treatment of insecticide poisoning

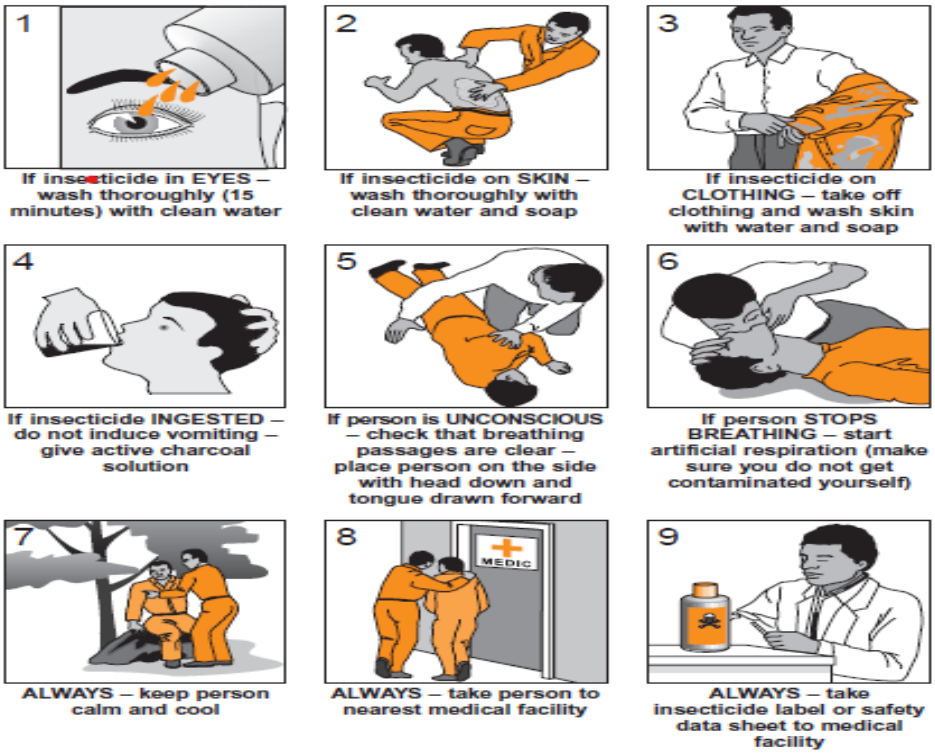
The treatment of severe insecticide poisoning is complicated, even in specialized well equipped hospitals. The distances between the application sites and hospitals further complicate fast

treatment. Avoiding poisoning should therefore be the absolute priority. Insecticide poisoning should be treated by trained medical staff.

Emergency sampling. Sometimes it may not be possible to develop a proper sampling plan. This is the case in emergency situations, e.g. if wildlife mortality has been observed, accidental spillage has occurred, beekeepers have claimed that pesticides spray has caused them damage, etc. In these cases, the monitoring team may need to take samples immediately, for later residue analysis. It is important that sampling is carried out as soon as possible, otherwise residues may already have broken down.

First aid after insecticide exposure: First aid after insecticide exposure is of vital importance and may save lives. The most important aspects of first aid are to reduce or stop further exposure to the insecticide, and to stabilize the patient if needed. Advice on first aid is given in Fig. below: *Source – Safety and Environment Guidelines, FAO 2003:*

Figure 26. First aid measures to be taken in case of insecticide exposure and poisoning.



Antidotes should never be administered prophylactically. Using atropine or pralidoxime as "preventive medication" may mask early signs of organophosphate poisoning. This allows control staff to continue spraying when they should not, and can result in more severe poisoning.

(Source: Safety and Environment Guidelines, FAO 2003)

Risk of Spraying, storage (Stores) and Emergency Preparedness Measures

S.N	Risk	Risk Source	Emergency preparedness measures
1.	**Fire risk**	**Stores** Certain insecticide formulations are inflammable.	No smoking is allowed around fuel and insecticide storage sites and during refuelling of transportation vans. During refuelling any engine or apparatus that may give off sparks (e.g. cars) should be shut down or moved away.
			Preparedness for firefighting equipment and procedures in all stores and fuel station of the operation.
			Training on fire fighting for pesticide and fuel stores

			workers.
2.	**Spillage and leakage**	**Stores and Transportation** Care should be taken that insecticides are stored in the shade, whenever this is possible. Overheating (given the characteristic high temperatures in Northern and Eastern Uganda during DRY season) may lead to buildup of pressure inside the insecticide drums, which may burst or forcefully eject the product when the bungs are opened.	Large-scale pesticide stores should be custom-built. They must have all the necessary safety features to contain possible insecticide spillage, such as bunded walls.
			If pesticide spray is carried out from the same site for several days, drums can be protected from direct sunlight by placing them under tarpaulins on poles. To contain any possible spills that may accidentally occur, temporary soil bunding should be constructed around the storage site. Special portable bunding also exists for temporary drum storage, which has the advantage that spilled insecticides will not penetrate into the soil.
3.	**Fumes**	**Stores**	Ensure sufficient ventilation and provide protection against rain and sunlight.
			Adopt FAO detailed guidelines on the design of pesticide stores
4.	Splash and Drenched by the insecticide	***Filling hand-held sprayers and* insecticide loading** This is potentially a hazardous operation, because if an accident occurs the operator may literally be drenched by the insecticide. The main risks associated with pumping are bursting of hoses and loosening of the connections between the hose and the pump. Both risks are more likely to occur with motor pumps. It is therefore essential that pumping gear is of good quality and well maintained. ULV insecticides may be very corrosive and can destroy pump hoses relatively rapidly. Filling other types of sprayers may also be hazardous, since concentrated ULV formulation can splash on to the operator.	Hoses should be checked daily for wear and tear and corrosion and replaced as soon as needed. Similarly, connections between the hose and the pump may slowly loosen during operation, increasing the risk of operator exposure. They should be checked and fastened on a daily basis.
			Smaller containers (up to 20 litres) can be poured directly into the sprayer. Hand-held sprayers are normally filled by pouring the insecticide directly from the container. A wide funnel should be used to facilitate pouring and avoid spillage.
			For all insecticide loading operations, personnel should wear appropriate PPE, and water and soap for washing should be available. Sprayers should always be filled well away from habitations, bystanders, animals and water sources. Empty containers should be rinsed with a small amount of diesel or kerosene, and the rinsed added to the sprayer. Containers should be closed well after use (even if empty) and stored in a safe location.

Safeguards Team-The Project Coordinators/PIU will form a Safeguard Team to oversee the monitoring of pests and pesticide use under the project to ensure that the project complies with national laws, relevant safeguard policies as well as meeting of the country's international obligations.

Implementing Agencies

Table 10-4-2: PMP Implementing Agencies and their roles and responsibilities

Institution	Role/Responsibility
MAAIF Crop Protection Department	MAAIF will be the focal point for implementation of the PMP and shall coordinate its implementation through a harmonized information management system, financial mechanism and a monitoring and evaluation framework. The PIU will communicate the content of the Pest Management Plan to all project actors or stakeholders including ACB, NAADS, NARO, DAOs, UNBS, NDA, GAL, NEMA etc. at the national and relevant regional levels (i.e. within project clusters). MAAIF will: • create awareness among downstream project actors or participants (pesticide distributors/resellers, farmers, farm assistants) of the importance of pest and pesticide management in the framework of this PMP; • Ensure that all downstream actors or participants have access to information on relevant crop pests/diseases, Project IPM strategies regarding pest control, declared pest plants, current ACB list of registered pesticides etc. MAAIF will also: • Liaise with statutory bodies including URA, NDA and UNBS to ensure the importation of quality pesticides; (Already contacted UNBS for PVOC which starts May 31 2014). MAAIF has constructed a laboratory to test the pesticide ingredients if in harmony with the label at Namarele. • Liaise with NEMA and GAL to monitor pesticide contamination; • inspect the conditions of pesticide storage and transport; • Together with LGs collect empty pesticide containers; • Inspect pesticide shops to ensure that they are registered or licensed by ACB and trained by the College of Agricultural and Environmental Sciences at Makerere University together with UNADA, on safe use of pesticides. Inspectors will also be required to take samples of pesticides that are expired or suspected of being adulterated for laboratory testing. • Collect agricultural statistics through its Agricultural Statistics Division
NARO	NARO will coordinate all integrated agricultural research activities initiated under the project. The institutions will include National Agricultural Research Laboratory at Kawanda, Coffee Research Center at Kituuza, National Crops Resources Institute - Namulonge and other tertiary institutions. When pest problems occur that are novel or beyond the scope of NAADS in-house experts and the UCDA Extension Staff at the district level, advice will be obtained from NARO.
UBOS	UBOS will conduct agricultural censuses to generate data on agricultural production, cropped area, and yields of the crops produced by smallholder farmers. These agricultural statistics will be important in project evaluation.
LGs	Actual implementation of a large proportion of project activities will take place at district level and will fall under the responsibility of local governments. The LGS will: • Conduct surveillance of pests and diseases

	• Mobilize farmers for training • Distribute pesticides as well as collection of empty containers
NEMA	Role of NEMA will be to review and approve ESIA reports for the different sub-projects in addition to monitoring of pesticide use. Monitoring pesticides use and disposal of resultant waste, including expired pesticides.
MoH	MoH will be supported to collect and keep accurate statistics on pesticide poisonings events. In addition, it will create awareness raising actions that will target the different pesticide users in order to avoid such accidents and incidents.
ACB	The ACB will: • Register any new pesticides required under the project. • License any new pesticides suppliers • Development of the project specific IPM Pesticides List • Work with MAAIF inspectors to enforce the pertinent laws
UNBS	UNBS will work hand in hand with ACB, NDA, URA and MAAIF to address issues of pesticides quality. It will have to ensure that the fertilizers and pesticides imported to Uganda for the project meet standards as per guidance of the ACB, NDA and UNBS.
URA	Will ensure that revenue from the products that are taxable is remitted to Government.
UNADA	UNADA to work with MAAIF and UNBS to address the issue of fake and adulterated pesticides as well as to train more UNADA members in safe agrochemical use so as to effectively advise farmers.
NGOs	NGOs with collaborate with MAAIF and will work with farmers to: • Raise awareness among the smallholder farmers about the dangers of poor pesticide handling and use; • Work with extension staff to teach farmers about safe pesticide use and storage; • Work with farmers to develop community monitoring of the use and impacts of pesticides in order to alert the authorities as to the health and environmental impacts of pesticide use; • Empower the smallholders through training and other support to engage with the local government to address their concerns on pesticides use; • Do more to publicize to the public the environmental and health impacts of pesticide use • Work with Government to identify and support necessary policy changes.

TRAINING NEEDS AND STRATEGY

a. ***Training needs:*** There is need for training of Agricultural Extension Agents in IPM to become better at providing practical and research-based knowledge of crop production and protection strategies, including non-chemical alternatives. All existing extension workers will be trained in IPM and safer pesticide use who will in turn train the farmers and those directly below them.

b. ***Approach:*** Training farmers in IPM will be through using farmer field school (FFS) or farmer groups type of participatory learning and research programs, jointly with farmers, extension workers, and researchers. The FFS approach will involve a growing season-long informal learning experience in the farmers' own fields.

c. ***Pesticides use training*:** The key training needs that have been identified among others include post-harvest handling of crops, storage, disposal as well as safe use and handling of pesticides.

Training for "safer pesticide use" is a common approach to mitigate the potential negative health and environmental impacts of pesticides. This conventional approach will promote reducing health risks of pesticides by safer use of the products through training, use of protective equipment and technology improvements, as well seeking to reduce pesticide hazards via regulations and enforcement in addition to the training. Under ACDP, a well-illustrated booklet on safe pesticide use designed for self-learning will be developed and distributed to farmers, Extension staff, stockists and their staff. This booklet shall be applied and used in UCSATP.

Pesticide management training of pesticide dealers

a. **Recommended Course Content:** The target group is mainly business persons, whose main interest is making money. Consequently, this group has minimal interest in theoretical background and needs to be introduced to the practical aspects of pesticide management. Therefore, the course recommended here include types of pesticides, pesticide formulations, toxicity classification, types of pesticide labels, concentration mixing, fate of pesticides in the environment, safer use of pesticides (including selection, handling, application, storage, and protective clothing), and combining use of pesticides with non-pesticide methods.
b. **Booklet/Manual on Safe Pesticide Use:** In addition to the above training, a well-illustrated booklet designed for self-learning will be developed and distributed to stockists and their staff. The booklet will contain information on how to read pesticide labels as well as general information about safe pesticide use and first aid practices. In addition, MAAIF will assemble the recommended pest control practices in summary form for major crops that will also be very useful to stockists when advising farmers. This same booklet will also be used by extension workers.
c. **Training Responsibilities:** The PIU at MAAIF with input from National Agricultural Advisory Services (NAADS), Uganda Cooperative Alliance (UCDA) and National Agricultural Research Organization (NARO) and other interested stakeholders will standardize training needs assessment across the clusters and organize appropriate workshops to develop more detailed learning modules. The Crop Protection Department with input from the NAADS, will liaise with appropriate farmers' associations to:
    - plan training implementation
    - provide technical support such as in preparing and delivering specific training materials and evaluating resource materials,
    - identify and select suitable local training resource persons and materials, and
    - Prepare training progress reports.

The respective District Agricultural Officers will collaborate with farmers' associations and groups to:

a. identify and organize farmers groups for training (i.e., use of farmer field school to teach farmers on the efficient and responsible use of pesticides),
b. prepare, organize and supervise training implementation plan,
c. verify reports of persisting pest problems and farmers training needs,
d. monitor performance of farmer trainers and post-training assignments, and
e. Prepare training progress reports.

Farmers/local communities as the principal beneficiaries will be organized into farmer groups for training and adoption of IPM practices. The farmers will be facilitated to set up Community IPM Action Committees to coordinate IPM activities in their areas.

Monitoring and Evaluation

An annual report on the progress of pest and pesticide management will be prepared. The report will indicate the pest cases identified and treated using IPM approaches, location of pests, level of success of treatment, the amount and type of herbicide/pesticide used, level of cooperation from farmers and other relevant information (e.g., training programmes organized, farmer field schools held etc.). The project management will undertake annual pest and pesticide control and management reviews to confirm the implementation of the various control measures or programmes or actions outlined in the IPM. Recommendations from the reviews will help MAAIF to refocus and plan effectively towards achieving planned targets. The management review team will include, NARO, UCDA, NAADS, NEMA and MAAIF Crop Protection Department. Any other required additional technical guidance may be provided by the World Bank.

Table 10-2: Generic Summary of the Pest Management & Monitoring Plan, and Pesticides Management & Monitoring Plan for UCSATP

Potential Impacts and Risks	Mitigation Measures	Implementation tool	Expected result	Monitoring indicators	Responsibility
Threat from other crop pests and diseases	Educate and train farmers to adopt good agricultural practices (GAP)	Adoption of IPM techniques/ approaches	Farmers trained in IPM techniques and GAP	1. Number of farmers trained, Training records 2. Incidence of crop pests 3. Production losses from crop pests	UCDA, NAADS, MAAIF, DLGs
	Apply ACB approved or recommended pesticide if necessary	Inspection of pesticides at farm/storage gate prior to use (Project Policy)	Applied pesticides registered and approved by key stakeholders and in conformity with IPM principles	Records of pesticides applied at each farm	UCDA, MAAIF, NAADS, DLGs
Impact on post-harvest losses due to pests	Provide adequate and proper storage facilities	Post-harvest loss reduction plan based on IPM techniques in place	a.) Post harvest losses avoided or minimized b) Applied pesticides registered	Number of farmers trained in IPM techniques for post-harvest storage; Number and condition of storage facilities in use	MAAIF, NAADS, UCDA, DLGs
	2. Monitor incidence of post-harvest pests		approved by key stakeholders and in conformity with IPM principles	Number of cases of post-harvest pests	UCDA, NAADS, MAAIF, DLGs
	3. Confirm status and integrity of pesticides at storage gate prior to use	Inspection of pesticides at farm/storage gate prior to use (Project Policy)		Records of pesticides applied at storage sites/ rooms	NAADS, MAAIF, DLGs
Improper use of pesticides by farmers and extension staff	Educate farmers and extension staff on proper use of pesticides and pesticide use hazards including use of PPE.	Pesticide hazards and use guide manual or leaflet for the project (include simple pictorial presentations)	Proper use of pesticides by farmers and farm assistants	Number of cases of pesticide poisoning occurring under the project	MAAIF, DLGs
	Control and supervise pesticide use on farms	Adoption of IPM approaches/ techniques	Farmers trained in IPM techniques	Number of farmers trained, Training records	MAAIF, DLGs
	Monitor pesticide residue in crops	Random sampling procedure for crops and storage products	Pesticide residue in crops within acceptable limit/MRL	1. Levels and trend of pesticide residue in sampled crops 2. Number of times exported crops are rejected due to pesticide residues	MAAIF, DLGs

Pollution of water resources and aquatic life	Control and supervise pesticide use by farmers	Adoption of IPM approaches/ techniques	Farmers trained in IPM techniques	Number of farmers trained, Training records	MAAIF, DLGs
	Proper disposal of pesticide containers by resellers/farmers	Pesticide container collection and disposal plan	Pesticide container disposal plan developed and implemented	1. Number of farmers/ resellers aware of pesticide container disposal plan 2. Number of containers collected	MAAIF, DLGs
	Monitor pesticides in water resources	Environmental quality monitoring plan (linkage with Project ESMP)	Pesticide concentration in water resources (boreholes, streams etc.).	Levels of pesticides in water	NEMA, GAL, MAAIF, DLGs
Abuses in pesticide supply and sales	Identify all pesticide distributors and resellers interested in providing services and products to farmers under the Project	Registration policy for all interested distributors and resellers under project	Only approved and licensed dealers and resellers supply pesticides under project	a) Company registration documents b) Evidence of license/permit to operate in pesticides c) Evidence of location and contacts of suppliers/resellers	ACB, UNBS, MAAIF, DLGs
	Confirm status and integrity of pesticides supplied under project Ban big pesticide containers to minimize decanting cases	❖ All pesticides are to be in the original well labelled pesticide containers prior to use. ❖ No decanting of pesticides under this project. ❖ Inspection of pesticides at farm gate prior to use. ❖ Decanting policy (No decanting of pesticides under project)	❖ Only approved and registered pesticides used under project ❖ Banned pesticides avoided. ❖ Fake and expired pesticides avoided ❖ Integrity of pesticide guaranteed at farm gate level. All pesticides delivered for use are in the original containers	❖ List of pesticides supplied and used in line with Agricultural Chemicals Board. ❖ Cases of pesticides found in non-original containers. ❖ Inspection records for pesticides at farm gate prior to use. ❖ Cases of pesticides found in non- original containers.	ACB, MAAIF

Poisoning from improper disposal of pesticide containers	Educate farmers, extension staff and local communities on health hazards associated with use of pesticide containers	Pesticide hazards and use guide manual or leaflet for the project	Farmers, extension staff, local communities educated on pesticide health hazards	Number of cases of pesticide poisoning through use of pesticide containers; Number of farmers returning empty pesticide containers at collection points; Number of farmers, extension staff, and resellers trained in proper cleaning of pesticide containers.	DLG, NEMA, MAAIF, DLGs, MoH
	Properly dispose pesticide containers	Pesticide container cleaning and disposal plan	Pesticide container cleaning and disposal		
General health and safety of farmers/crops and environmental hazards	Educate farmers to adopt Best Practices based upon IPM techniques; and do not use chemical pesticides unless advised by MAAIF	IPM techniques with emphasis on cultural and biological forms of pest control	Compliance with national laws and WB policy on Pest/ pesticide management	Number of farmers trained in IPM techniques; Number of farmers implementing IPM on their farms. Frequency of chemical pesticides usage.	MAAIF, DLGs, MoH
	Provide PPEs to farmers/extension staff for pesticide use in the fields	Health and safety policy for farm work	Farmers and accompanying dependents (children) protected against pesticide exposure in the fields.	Quantities and types of PPEs supplied or made available under the project	MAAIF, DLGs
	Educate farmers/ farm assistants in the proper use of pesticides	Pesticide hazards and use guide manual or leaflet for the project (include simple pictorial presentations)	Farmers know and use pesticides properly; pesticide hazards and use guide leaflet or flyers produced.	Number of farmers trained in pesticide use; Number of farmers having copies of the pesticide hazard and use guide flyers;	MAAIF, DLGs
	Properly dispose obsolete and unused pesticides	Obsolete and unused pesticide disposal plan	obsolete and unused pesticide disposal plan prepared and implemented.	Relationship between pesticide supply and usage	MAAIF, NEMA, DLGs
	Educate farmers to obtain or purchase quantities of pesticides required at a given time and to avoid long term storage of	Pesticide use policy/plan	Only pesticides needed are purchased; long term storage of pesticides by farmers avoided.	Relationship between pesticide supply and usage	MAAIF, DLGs

	Provide emergency response to pesticide accidents and poisoning	Emergency response plan	Pesticide accidents and emergencies managed under the project	Number of pesticide accidents and emergencies	MAAIF, DLG, DLGs, MoH

10.4 ANNEX 4: LABOUR MANAGAMENT PROCEDURES

Labor Management Procedure (LMP) has been developed to manage labor risks during the implementation of the Uganda Climate Smart Agriculture Project." The LMP has linkages with the ***Pest Management Plan*** **(PMP*)*** which takes care of the safety and health of the workforce before, during and after application of pesticides. The PMP provides measures for workers and community safety, including emergency procedures. Both documents form part of this ESMF and should therefore be used in cross-reference. It is recommended that the key aspects of LMP including those of other E&S instruments, shall be incorporated in the bidding documents and contracts for implementation.

Labour Management Procedures apply to any project component where labour management aspects need consideration. For the reason that this ESMF has been prepared before full knowledge of all project details, including detailed or individual project-activities labour requirements, the labour management procedures should be revised annually to cater for any emerging labour issues not evident at this stage.

The Labor Management Procedure has been developed to set the way in which project workers will be managed in accordance with the requirements of Uganda Labor and Employment Laws and World Bank's Environmental and Social Standard 2 (ESS2) –Labor and Working Conditions. The Labor Management Procedures (LMP) apply to project workers including full-time, part-time, temporary, migrant workers, and specifically as listed under ESS2, the following: Direct workers, Contracted workers, Community workers, and Primary supply workers. The LMP is applicable, as per ESS2 to the project in the following manner:

a. people employed or engaged directly by the Government (including the project proponent/MAAIF and the project implementing agencies) to work specifically in relation to the project *(Direct workers);*
b. People employed or engaged through third parties to perform work related to core functions of the project, regardless of location (*Contracted workers*). 'Third parties' may include contractors, sub-contractors, brokers, agents or intermediaries;
c. People employed or engaged to provide community labor (*Community workers*) as that term is identified in paragraphs 34-38 of ESS2; and
d. people employed or engaged by Government's primary suppliers (*Primary supply workers*) – are those suppliers who, on an ongoing basis, provide directly to the project goods or materials essential for the core functions of the project identified in paragraphs 39-42 of ESS2.

Overview of Labour Use in the Project

The characteristics of Project workers in terms of types, numbers and timing of the individual requirements cannot be provided definitely at this point but guiding projections can be provided to serve as a basis to guide project implementation. **Timing of Labor Requirements** will correspond to timing of implementation of each operation/ project component and/or activity.

Workforce requirement*:* the requirement of the work force at different levels and labor type will be determined by the scope of work to be undertaken under different project components. The following estimates are based on a projected workforce needs dictated by the CDD-project type sub-components, institutional capacity building aspects and involving participation of communities themselves (Farmer groups). The table below presents the estimated labor force for each type of worker. Most of these workers are government civil servants and Community workers. MAAIF shall ensure that the employment Contracts of all types of workers are in line with Uganda's Employment, Labor Acts, and OSH Acts, as well as the provisions of ESS2, in particular the provisions relating to terms and conditions of employment, non-discrimination and equal opportunity, occupational health and safety, and prohibitions on forced and child labor. Their requirements, including those specified under ESS2 shall be incorporated as appropriate and enforced.

N°	**Type of worker**	**Estimated numbers**	**Remark**
1.	Qualified Government		

Nº	Type of worker	Estimated numbers	Remark
	Employees/civil/public servants		
	MAAIF, NARO, NAADS	40	Provide overall leadership of the project implementation, both at National and District levels. NARO & NAADS shall be involved mainly in Supporting Climate-Smart Agricultural Research and Innovations and Building Competitive and Sustainable Seed Systems.
	MoGLSD	10	Will take lead in monitoring labour and working conditions of project activities.
	District Local Governments	400	Will lead overall coordination at local level, including mobilization and sensitization of communities and participating farmer groups.
	Sub-County Local Governments	800	Involved in overall coordination at Sub-county level and monitoring activities, including mobilization and sensitization of communities and participating farmer groups.
2.	Direct workers		
	NPS/CU	06	Coordinate project implementation
	Consultants	15	Provide technical support to MAAIF for project implementation.
3.	Contracted workers		
	Promoting Adoption of Climate Smart Agricultural Practices and Value Chains. Strengthening Agro-climatic monitoring and information systems	1000	Some infrastructure sub-projects will require to be contracted out for implementation by Contractors.
4.	Community/ Voluntary Workers	5000	To undertake implementation of some project activities on voluntary basis and/ or providing community labour contribution (CDD-approach) by project beneficiaries, and eventually owning and implementing individual activities on long-term basis. The project will target individuals (smallholder and largescale farmers), farmer groups, cooperatives, and self-help groups. The indirect beneficiaries are the household members of the project participants and the users of the rehabilitated lands and sustainably managed natural resources that have not benefited directly from the project but benefitting directly from project activities

Where and when necessary (in Karamoja Region), linkages between the District Local Governments and the UPDF/UPF will be streamlined through the District Implementation Team (led by Chief Administrative Officer) in coordination of the District Security Team (led by Resident District Commissioner -RDC). Key decisions to involve the UPDF/ Uganda Police to provide security to project workers will be made on case-by-case basis depending on the security situation at each district in the Karamoja Region. Community Leaders and Informants shall be involved in determining the need for security participation in specific project activities, including conducting consultations with the District technical officers and respective

RDCs. All the Security personnel to be involved in providing security to project workers shall receive training from the project PCU in close collaboration with each District Security Committee. The training will cover the following main aspects: Project activities, Security Needs and limits, Code of Conduct for Security Personnel, dealing with Communities and Project workers, managing project risks (such as SEA, avoiding excessive force, COVID-19 SOPs, Health & Safety, etc). The role of the security agencies (Uganda Police and UPDF) is limited to providing security to project workers in the Karamoja Region against the cattle rustlers/ warriors operating in the region rather than security/law enforcement activities. As such, the assessment conducted so far plus future anticipated assessments are commensurate to the risk.

Assessment of Key Potential Labour Risks

Under Components 1, 2, 3 and 4, infrastructure related works are expected and these typically pose risks associated with construction projects such as: Possible accidents/ injuries from tools and machinery, Absence/ lack of insurance for construction workers, Generation of waste and associated resource (water, energy) efficiency issues, community health and safety, labour impacts on host communities in case there is influx, etc.

There are three principal human risk groups:

- persons exposed to health and safety risks of the infrastructure developments,
- those handling pesticides and exposed to the treatments,
- project host community safety (including consumers of contaminated food products), and
- risks associated with involvement of the Uganda Police Force and/or Uganda People's Defence Forces.

One of the key labour risks posed by the project is related to occupational health and safety concern Investments where use of agro-inputs is envisaged; specifically, related to hazards (poisoning) from the occupational health and safety exposure to pesticides, poisoning from used chemicals as well as workplace accidents/ injuries for the infrastructure related activities and these range from traffic safety, GBV/SEA by project workers. Managing these risks require adequate training for direct, contracted, community workers, and Government employees involved in project implementation. Safe procurement, transportation, storage, application and disposal of resultant wastes shall be undertaken in line with the PMP guidance provided under Section 5.4.1 of the ESMF.

Labour migration/influx will be limited in scope, due to limited contracted services and short windows of infrastructure works. Therefore, the risks associated with HIV/AIDS transmission and increased levels of GBV/Sexual harassment are expected to be minimal and continuous sensitization of the few workers and participating communities against such evils will be undertaken by the project. In addition, all project contracts shall be required to have a code of conduct for all project workers, which will among others include aspects and clauses against SEA. The project will work closely with the local leaders and structures such as the Uganda Police to ensure the National Law requirements against SEA are respected and followed. The likely risk of employment discrimination against women and members of vulnerable groups has been addressed in the project design which will deliberately target at least 50% female beneficiaries and prioritise participation of the vulnerable groups including the youth and elderly. In accordance with ESS2 and the Ugandan Labour Laws, the project will not recruit any labour of under 18 years of age (applicable also to community workers), due to the hazardous nature of the work that involves handling and management of pesticides, and neither rely on forced labour. In addition, the project will not employ forced labour, and all workers shall be required to have working contract/ appointment letter before assuming work. Where Community/ Voluntary workers are engaged, the project shall ensure use of a Community Agreement, containing agreed terms of engagement. Finally, the project will be implemented following the COVID-19 SOPs, as indicated under Section 5.4.5.

Use of Security Forces to provide safety (preventive and defensive purposes) to the project workers is

considered a Labor-related risk in the Karamoja Region. Karamoja Region, Generally, military engagement in a civilian community poses risks to the community; such risks would include Gender Based Violence (GBV), Sexual Exploitation and Abuse (SEA) and Sexual Harassment of the civilian community. To mitigate this a rapid risk assessment has been conducted and a GBV action plan developed as part of this ESMF. The GBV Action plan provides details on appropriate means for preventing and responding to violations including reporting, response institutions and ways of resolving the issues. Further details and guidance on use of Security Forces in the project are covered in Annex 6. These include details relating to the principles of proportionality and Good International Industry Practice to be adopted/applied and applicable law in relation to screening, hiring, rules of conduct, training, equipping, and monitoring of UPF/ UPDF personnel. Further, MAAIF shall ensure that Security Personnel deployed in the project are not implicated in the past abuses, train them adequately (or determine that they are properly trained), in the use of force (and where applicable, firearms), and appropriate conduct towards workers and affected communities and require them to act within the applicable law and any requirements set out in the ESCP.

Overview of Labour Legislation: Terms and Conditions

Terms and conditions of employment of workers under the project shall be according to Uganda's *Employment Act, 2006,* Workers Compensation Act 2000 and FIDIC; in consistence with the requirements of ESS2. Key aspects to pay attention to are:

Clear contracts will be entered into with workers; stipulating their rights according to the Employment Act, 2006 mentioned above.

Method of payments to workers, clear procedures on any deductions of their wages and clear procedures of rests, leaves and holidays, are to be provided to the workers according to Parts V and VI of the Employment Act, 2006 mentioned above.

Procedures of termination of employment, shall be clear and understandable.

The Employment Act of 2006: The Employment is the governing legal statutory instrument for the recruitment, contracting, deployment, remuneration, management and compensation of workers. This Act provides for matters governing individual employment relationships in terms of circumstances of provision of labor.

Occupational Safety and Health Act of 2006; The Occupational Safety and Health Act of 2006 makes provisions for the health, safety, welfare and appropriate training of persons employed in workplaces.

Workers compensation Act of 2000: The Act outlines matters of compensation for injuries and accidents as well as the responsibility of employees to take care of their health, health and safety while on the project.

Public Health Act Cap.281: Part IX Sanitation and Housing: No person shall cause a nuisance, or shall suffer to exist on any land or premises owned or occupied by him or her or of which he/she is in charge, any nuisance or other condition liable to be injurious or dangerous to health.

The National Environment Act 2019, Section 3**,** provides for a Right to a decent environment in accordance with Constitution and the principles of sustainable development.

International Labour Management Requirements

The applicable international instruments to the project include the World Bank's Environmental and Social Standard two (ESS-2) on Labour and Working conditions which clearly requires projects to undertake the following: promote safety and health at work; promote fair treatment, non-discrimination and equal opportunity of project workers; protect workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with this ESS) and migrant workers, contracted workers and primary supply workers as appropriate; prevent all forms of forced labour and child labor; support principles of freedom of association and collective bargaining power in a manner consistent with the national law; and to provide workers with accessible means to raise workplace concerns.

Other International requirements include instruments of the International Labor Organization (ILO): Freedom of Association and Protection of the Right to Organize (ILO Convention 87, Article 88); The Right to

Organize and Collective Bargaining (ILO Convention 98), Forced Labor (ILO Convention, Articles 3&4); The Abolition of Forced Labor (ILO Convention 105, Article 1); Minimum Age (of Employment, ILO Convention 138, Article 1); Discrimination (Employment and Occupation, ILO Convention 111, Article 11).

1. Overview of Labour Legislation: Occupational Health and Safety

Managing occupational health and safety procedures will be based on Uganda's *Occupational Safety and Health Act, 2006* and FIDIC 1999 clause 4.8 and 6.7

Key OHS measures are as follows:

a. Procedures to ensure establishing and maintaining safe working conditions.
b. Reporting channels for workers to report work situations that they see are not safe or healthy.
c. Compliance to requirements of the OHS Act by employers (contractor and sub-contractors).
d. A system for continual review of OHS performance and conditions in workplace environment.

2. Institutional Framework

The following are some of the key institutions in the implementation of Labor Management in Uganda, and specifically for this project. They are:

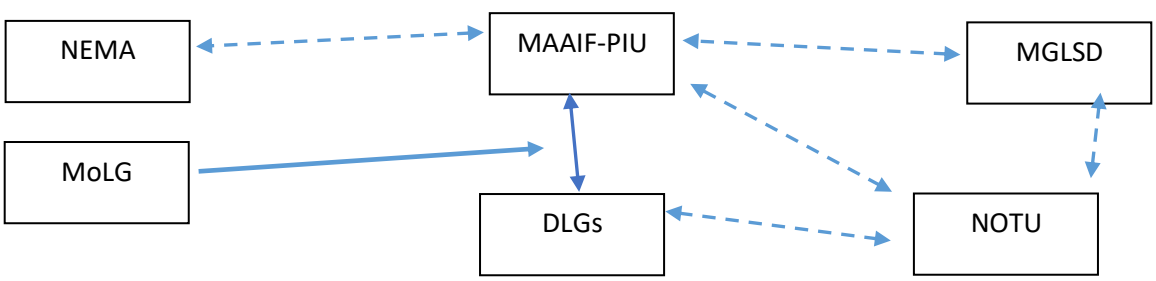
a. ***Ministry of Agriculture Animal Industry and Fisheries (MAAIF)*** represented by the PIU described under Section 7 will be in charge of overall implementation of the project and ensuring labor and employment requirements are implemented as per the Uganda laws and ESS2. In addition to the Environment and Social Safeguards Specialists, MAAIF will procure short term consultants to support implementation of the Environment and Social Safeguards in specific project activities;

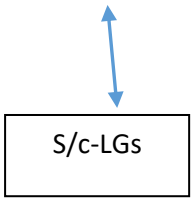
b. Ministry of Gender, Labor and Social Development- MGLSD; - following their Statutory Mandate, will be in charge of enforcing OSH aspects and ensuring implementation of labor-employment requirements at workplaces, covering the whole country; MGLSD shall be assisted by the District Labour Officers on a day to day basis since they are at the grassroot and interface with the project on a daily basis in line with their responsibilities at that level. The Environmental, Health and Safety Specialist will take lead in coordinating participation, working closely with designated labour officers, designated community development officers, recruited community based facilitators and involvement of MGLSD. The project will further build the capacity of Agriculture Extension Officers, Agriculture Inspectors and District Agriculture Officers in overseeing implementation of health safety measures in project activities; National Environment Management Authority-NEMA; following their Regulatory Role, will monitor and enforce project activities to ensure proper storage and application of pesticides to minimize likely impacts on the communities and workers, and will also monitor implementation and enforcement of labour requirements in the project;

c. Ministry of Local Governments (MoLG); - in charge of decentralized governance in Uganda, will directly supervise the District Local Governments to ensure they implement the project in line with Uganda's Local Governments Act that provides for decentralized functions, and implementation of labor laws and ESS 2 requirements, among others;

d. District Local Governments; - have various technical officers ranging from District labor officers charged with enforcement of labor working conditions and resolving labor related complaints; and

e. National Organization of Trade Unions-NOTU; - will monitor labour and working conditions of the project.





Provision	Project Staff/ PIU, Contractors and Consultants	National MDAs (MAAIF, NARO, NAADS), District & Sub-County Local Governments Staff – Civil/ Public Servants	Uganda Police/ UPDF	Community workers
Appointment Letter/ Working Contract / Agreement	X	X	X	X
Adequate periods of rest per week, annual holiday and sick, maternity and family leave	X	X	X	X
Termination in accordance with Uganda Labour Law, relevant International Conventions ratified by Uganda	/	/	/	/
Non-Discrimination	X	X	X	X
Workers' organization	X	X	X	X
Minimum age of employment	X	X	X	X
Prevention of Forced Labour	X	X	X	X
Monthly salary payment	X	X	X	X
Accommodation	/	/	/	X
Health Insurance	X	/	X	X
Code of Conduct	All project staff	All project staff	X	X
Occupational Health and Safety	x	X	x	X

Policies and Procedures

Measures that should be followed during project implementation to address labour risks are provided below:

a. All employers on this project shall develop and implement procedures to establish and maintain safe workplaces;

b. All parties involved in employing or engaging project workers shall make sure to provide full information to workers, and conduct training for them about OHS requirements;

c. Personal protective equipment should be provided to workers without expense to them;

d. Clear processes and procedures shall be available to workers to enable them to report work situations that they believe are not safe or healthy, and accordingly remove themselves;

e. Facilities appropriate to the circumstances of the works will be provided to the project workers;

f. A system of regular review of OHS performance and the working environment will be put on place;

g. A safety Plan shall be provided before the beginning of these works in the project;

h. Insurance of project workers, equipment and machinery.

3. Forced Labour, Child Labour and Age of Employment

i) Forced labour which consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty, will not be used in connection with the project. No trafficked persons shall be employed in connection with the project.

ii) Persons under the age of 18 will not be employed or engaged in connection with this project.

iii) Age of workers will be verified from their national identity documents.

iv) If an underage worker is found on the project, the contractor who employed such workers shall be stopped from working and be given a notification to change such workers.

Terms and Conditions

- Wages shall be paid to the project workers by the contractors according to Ugandan laws.
- Maximum number of hours that can be worked on the project is 8 hours a day.
- All other terms and conditions specified in the Ugandan labor law, FEDIC 1999 and World Bank OHS requirements apply to the project.

Workers' Grievances Management Committees and Structure

In line with the provisions of ESS2 and ESS10, the MAAIF, the Department of Plant Protection will establish accessible and functional **Worker** Grievance Mechanism for all categories of **workers** described in this LMP. All workers will have liberty to communicate their grievances to the employer, MAAIF or World Bank. Grievances shall be communicated by complainants verbally or using telephone, email, by letter to either or all of the aforementioned entities. The various laws listed in the above paragraph provide employers and workers or their respective associations with opportunities to use social dialogue in order to prevent and resolve labour disputes amicably. MAAIF will form the National Grievance Redress Committee Chaired by the Commissioner Crop Protection, while each participating District will establish one at that level, chaired by the District Labour Officer, followed by the ones at Lower Local Government Levels of the Sub-County chaired by the Sub-County Chiefs, Parish Level chaired by the Parish Chiefs and at the lowest administrative level of villages, chaired by the LC-1 Chairperson. The workers GRM will be constituted among the workers and some representation from the project beneficiary community, and the contractor. It should be emphasized that this GRM is not a substitution to legal system for receiving and handling grievances. However, this is formed to mediate and seek appropriate solutions to labour related grievances, without escalating to legal redress. Legal redress is noted as the last resort mechanism to resolve labour disputes.

The Community Health and Safety Standard recognizes that project activities, equipment, and infrastructure can increase community exposure to risks and impacts. Potential negative impacts affecting health and safety may arise from project supported activities which in this case may include management impacts from infrastructure activities, safe disposal of obsolete pesticides and associated packaging amongst others. It is therefore important that, the project strictly observes the need to avoid or minimize the risks and impacts to community health, safety and security that may arise from its particular attention given to the health and safety of the communities. Therefore, it is important to ensure that, the project avoid or minimize the potential for community exposure to health risks (e.g., accidents, pollution, contaminated areas/resources) and diseases that could result from or be exacerbated by vector-borne diseases, and communicable diseases, injuries, mental health, and well-being.

10.5 ANNEX 5: TECHNICAL NOTE ON USE OF SECURITY FORCES IN COVID-19 EMERGENCY OPERATIONS (WORLD BANK) AND SECURITY MANAGEMENT PLAN

A. Technical Note on Use of Security Forces in COVID-19 Emergency Operations, *(Adopted & Revised for use in UCSAT Project)*

This Technical Note presents Suggestions on how to Mitigate Risks – Principles to be Adopted (in italics) when developing individual District Security Plans under UCSAT Project

It is common practice for Governments to utilize military or security personnel in situations and areas of civil unrest destabilizing public order. The ability to do this, and the requirements relating to such mobilization, are often set out in executive orders or instructions.

For the reasons set out in Annex 5B below, it is expected that military or security forces (*under direct management of the National Army and the Police)* will be utilized in different ways *during implementation of UCSAT project in the Karamoja Region where there are ethnic cattle rustling conflicts).* They will be used directly to *provide security/safety to the project workers).* Where military/security forces are utilized, either directly or indirectly, in connection with Bank-supported operations, questions will arise about the risk of the operation. Is it automatically high or are there effective ways of mitigating the risk? This guidance sets out suggestions for due diligence and mitigation measures to address the risk. *This is more of a context operational risk which the project has to take into consideration during implementation specifically in the Karamoja region.*

What are the positive aspects about using the national military/army/police?

While noting that the National Military/Army/Police will ONLY be used in the project to provide security/safety to project workers in the Karamoja Region, where inter-tribal/ethnic armed-cattle raids take place. Currently, there is an ongoing amnesty for disarmament of the armed Karamojong Warriors and ethnic groups outside Uganda. Given this existing local context, especially in circumstances where project workers and host communities alike get caught-up in between raids and/or security operations, it will be inevitable to involve the Security Forces from time to time to provide security to project workers.

Where relevant, consider the following and document relevant details:

a. ***Human rights*:** Depending on the country, military personnel may be aware of the need to respect human rights and received relevant training.
b. ***NBC capabilities:*** Many military forces have nuclear, biological and chemical capabilities. They may have existing biological defence capabilities e.g. ability to deploy with personal protective equipment (PPE); training in decontamination; procedures or advice on how to carry out relevant activities.
c. ***Disciplined response:*** Generally, military personnel are expected to respond in a disciplined manner to commands and will have capabilities which will be useful in securing the safety of project workers.

What are the things to watch for?

a. ***Diversion of materials, aid and assistance*:** Diversion can take the form of confiscations and re-use, misappropriation and theft. While a certain level of diversion may be inevitable in certain circumstances, this issue is likely to present reputational issues (especially when the crisis dissipates).
b. ***Allegations of human rights violations:*** This will be a risk, including as it relates to Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH), and GoU and the Bank needs to be clear and transparent about what measures are being adopted to minimize these risks. Tools that should be considered include the ESF Good Practice Note (GPN) on Use of Security Forces, on SEA/SH, and the IFC Good Practice Handbook on the Use of Security Forces: Assessing and Managing Risks and Impacts**.**
c. ***Putting World Bank staff at risk*:** This is particularly a concern where military/security forces are likely to be undisciplined. The risk may be heightened when Project staff (PIU) and Bank staff are

trying to address the risk of diversion referred to above. While staff may try to address this risk by avoiding direct interaction with the military, this is not likely to be feasible in a project setting.

d. ***International media comment and reaction***: This will be a challenge, and it may not be possible to avoid negative comment entirely. It is important to be transparent about the activities Government and the World Bank is supporting and the mitigation measures that are being implemented to address risks.

What are the ways to address the risks?

a. ***Get a view of the reputation and capability of the military*:** Talk to those who might have up to date and accurate information.

b. ***Identify the structure under which the military will be operating***: While they will continue to abide by their own rules and procedures, it is likely that the military will also be subject to relevant national requirements relating to the public order and the specific activities that they are required to carry out e.g. instructions issued by security officials. In the context of a Bank-supported operation, it is good practice to document (as far as possible) the structure under which the military are operating, including the chain of command, with specific reference to the activities they will or are likely to carry out. *The involvement of Security shall be coordinated by District Implementation Teams (DITs) working closely with the respective Resident District Commissioners (RDCs). RDCs are Head of District Security Committees and represent the President. RDCs routinely undertake security surveillance and have baseline information that can be shared with DITs. The DITs can influence and give direct technical instructions through the RDCs. This structure will render implementation of various requirements effective.*

c. ***Clarify who is responsible for human rights issues nationally*:** Many countries have a Human Rights Commission. If such commissions do not exist, there is usually an Ombudsman, Human Rights office or inspector general at the national level with jurisdiction to deal with such issues. Identify the relevant parties and consider whether it would be appropriate to consult them for advice. *The Uganda Human Rights Offices at each District shall be consulted and involved in case need arises relating to project activities.*

d. ***Identify other specialized parties and ask for advice***: There are both national and international NGOs which follow and support these issues (e.g. Human Rights Watch (HRW), Amnesty). There is also the International Committee of the Red Cross (ICRC) and the International Crisis Group. Identify relevant parties, with reference to the context and nature of the operations, who may be in a position to provide valuable advice.

e. ***As required under the ESF, cooperate with relevant stakeholders on a risk assessment*:** Carry out a risk assessment to identify the specific risks associated with the proposed use of military. This assessment needs to be conducted with those that are involved in the operation, including Government counterparts, to ensure that an accurate picture of the risks emerge, that appropriate mitigation measures are identified and that both the risk assessment and the mitigation measures are owned by the project and the Government. The detailed risk assessment shall be carried out by MAAIF prior to project effectiveness.

f. ***Be transparent about what Government and the World Bank is requiring to mitigate the risks***: Document this, setting out key aspects in the project documentation. Consider the following:

- procedures relating to: e.g. risk assessment; how allegations of HR/SEA/SH violations will be dealt with, including through the project Grievance Mechanism (GM); preventing diversion of materials, aid and assistance (build on existing requirements)
- presence of MAAIF/PIU and the World Bank representatives/third party monitors on the ground
- cooperation with specialist institutions/NGOs/Government agencies
- specific obligations set out in the legal agreement and (if possible and appropriate) a Memorandum of Understanding (see paragraph (k) below)
- monitoring and reporting

g. ***Consider asking a credible party to act as an observer/third party monitor***: This can be considered under the ESF provisions for third party monitoring as noted in ESS1 and ESS10, as well as the ESF Good Practice Note on Third Party Monitoring. Relevant groups with experience in this field will depend on the context, and may include the parties referred to in paragraph (d) above.

h. ***Establish a procedure to be followed in cases of allegations of HR/SEA/SH violations or misbehaviour***: This should reflect the ESF Good Practice Note on SEA/SH and may include reference to the institutions referred to in paragraph (c) above. Include a specific HR and SEA/SH procedure in the project GM to address these allegations and identify specific individuals who have the expertise to address such allegations credibly. Understanding relevant Code of Conduct (CoC) requirements pertaining to such behaviour is important, and, where necessary, improving the form and substance of such CoC. *All the army personnel to be involved in project implementation shall be required to sign a CoC, in line with the requirements of WB ESS2 & ESS4.*

i. ***Be clear on what the military will do***: Identify the activities and set them out clearly in the legal agreement. This will support a more accurate risk assessment. Note that in some circumstances, what could otherwise be viewed as inappropriate behaviour by the military (or at an extreme, a possible abuse of rights) may be authorized and necessary in situations of a public emergency. This will depend on the activities that the military is required to carry out and will be particularly relevant where they are required to enforce public order or quarantine restrictions. *The Army/Police's involvement shall be restricted to provision of Security to project workers in the Karamoja region. This will be a case-by-case basis and demand driven based on prevailing conditions in each District in the Karamoja region.*

j. ***Set out specific requirements as covenants in the legal agreement and in the Environmental and Social Commitment Plan (ESCP) as appropriate:*** The provisions should set out the 'ground rules' for military engagement, including: (i) requirements to comply with ESS4; (ii) reporting obligations (specify on what, how often, to whom); (iii) specific prohibitions e.g. no child labor, no forced labor, restrictions on what military personnel under the age of 18 can do (if anything); (iv) health and safety requirements; (v) Code of Conduct (CoC) type obligations; (vi) requirements for the GM; (vii) training required and how often (specify on what–e.g. Voluntary Principles on Security and Human Rights, interactions with the community, operation of the GM, use of personal protective equipment (PPE), CoC).

k. ***Where possible, and if not already covered by applicable law/regulation, the Government should consider executing a Memorandum of Understanding (MoU) with the military:*** This should reflect the 'ground rules' set out in the legal agreement (see paragraph (j) above). An example of a MoU is available in the IFC Good Practice Handbook on the Use of Security Forces: Assessing and Managing Risks and Impacts. Even where it is not possible for individual military personnel to sign a CoC, the requirements should be set out in the MoU, and training should cover these obligations (amongst others). ***As mentioned under Part-1 and 3-b above, where necessary, the use of the National Security Forces/Army/Military/Police structures specifically in the Karamoja Region, shall be undertaken through the respective District Structures (District Security Teams, headed by the Resident District Commissioners). Accordingly, each District Shall Carryout the above-mentioned assessments and accordingly where necessary develop a Security Management Plan in line with the guidance provided in this ANNEX 5 A and 5B.***

Set out below is suggested wording on HR/SEA/SH:

Prior to deploying military or security personnel, the MAAIF-PIU and respective affected districts shall take measures to ensure that such personnel are:

a. screened to confirm that they have not engaged in past unlawful or abusive behaviour, including sexual exploitation and abuse (SEA), sexual harassment (SH) or excessive use of force;

b. adequately instructed and trained, on a regular basis, on the use of force and appropriate behaviour and conduct (including in relation to SEA and SH), as set out in the (*Training Procedure*, *Project Operational Manual, ESMF, Security Management Plan, MoU)*; and

c. deployed in a manner consistent with applicable national law.

The MAAIF-PIU in conjunction with the respective DITs and District Security Committees shall promptly review all allegations of unlawful or abusive acts of any military/security personnel, act (or request appropriate parties to act) to prevent recurrence and, where necessary, report unlawful and abusive acts to the relevant authorities.

Set out below is suggested wording on reporting: Frequency of reporting will depend on the context and the risks associated with the activities the military is carrying out, and may be required monthly, weekly or even daily. Requirements should include:

- Immediate reporting (within 24 hours) of any serious incident
- A written weekly or monthly report (depending on the risk) covering:
    - status of activities being conducted by the military
    - training conducted (specifying subject matter)
    - current status of review of serious incidents (if any) and any relevant reporting
    - a summary of any minor (but reportable) issues, suspected incidents or potential issues
    - details of any incidents involving use of force or weapons
    - details of upcoming activities which may pose a risk (e.g. distribution of supplies) and measures being put in place to reduce such risk
    - lessons learnt, to inform conduct of future activities

B. SECURITY MANAGEMENT PLAN

Objective of the SMP

Principally, to provide and maintain a safe physical environment and manage staff activities to reduce the risk of personal injury and property loss during the implementation of the Uganda Climate Smart Agricultural Transformation (UCSAT) Project. The Security Plan applies to activities undertaken in the Karamoja Region where use of security forces is occasionally required during cattle rustling times between the ethnic groups in the region.

Security Approach

The MAAIF/through the Project Coordinator UCSAT project will ensure that security procedures and criteria are fully designed and updated, and the means fully available to ensure the security for project operations. The security plan describes how security is organized to face identified threats and how security is continuously reassessed and reorganized in correlation with security situations and operations being undertaken. A specific security organisation will be implemented in order to provide a secure operating environment to MAAIF operations of the Climate Smart Agricultural Transformation Project, and its contractors while undertaking operations in the Karamoja region and/ throughout the project districts whenever deemed necessary.

B. STANDARDS and GOOD INTERNATIONAL PRACTICE

This security management plan is anchored on World Bank Environmental and Social Standard 4 (ESS4) that covers Community Health and Safety on sub section (b) Personnel Security in line with the World Bank Good Practice Note on Assessing and Managing Risks and Impacts of the Use of Security.

Government of Uganda shall abide by the World Bank Good Practice Note on Assessing and Managing Risks and Impacts of the Use of Security to comply with the commitments on human rights extended throughout the project implementation. All Security Personnel deployed to provide security will be required to sign a Code of Conduct. The Code of Conduct will be guided by the principles of proportionality and GIIP, and by applicable law, in relation to hiring, rules of conduct, training, equipping, and monitoring of such security workers. The Borrower will not sanction any use of force by direct or contracted workers in providing security except when used for preventive and defensive purposes in proportion to the nature and extent of the threat.

In accordance with ESS4, MAAIF will:

i) make reasonable inquiries to verify that the direct or contracted workers retained by the Borrower to provide security are not implicated in past abuses;
ii) train them adequately (or determine that they are properly trained) in the use of force (and where applicable, firearms), and appropriate conduct toward workers and affected communities;
iii) require them to act within the applicable law and any requirements set out in the ESCP; and
iv) review all allegations of unlawful or abusive acts of security personnel, take action (or urge appropriate parties to take action) to prevent recurrence and, where necessary, report unlawful and abusive acts to the relevant authorities.

SECURITY MANAGEMENT

Security Management for the project lies under the oversight and responsibility of the Project Coordinator at National and the District with the District Implementation Team, entry point being the

respective Resident District Commissioners. The management of security for UCSAT project operations will comply with the four basic pillars of security management:

a. ***Detect*** an adversary.
b. ***Deter*** an adversary if possible.
c. ***Delay*** the adversary until appropriate authorities can intervene.
d. ***Respond*** to the adversary's actions.

OVERVIEW OF THE SECURITY SITUATION

Different security risks exist in the selected project Districts and more emphasis and focus is placed on the Karamoja Region districts which are usually impacted by the traditional armed cattle raids/ rustling among the ethnic groups in the region. This will directly pose security risks to the project teams operating in the region and therefore need to take it into consideration throughout the project life. This therefore calls for security arrangements harmonised with the existing practices and situation in each district in the Karamoja region, whether new or changing, these must be communicated without delay through the chain of Security Team Leader to the designated project Site Officers and be recorded in the security log.

The security risks can be categorized into:

a. Internal Risks may include but not limited to: illegal, unethical, or inappropriate behaviour of project personnel or those directly affiliated with it, such as employee theft, workplace violence, and labor unrest, potentially with associated sabotage).
b. External Risks are those caused by the actions of people outside the project who seek to take advantage of opportunities presented by the development and operation of the project, such as common criminal activity; disruption of the project for economic, political, or social objectives; and other deliberate actions that have a negative impact on the effective, efficient, and safe operation of the project. In extreme cases, these could include terrorism, armed insurgency, coups, or war.

The main security risks within the Karamoja Region Districts include:

a. Criminal offences
b. Terrorism
c. **Cattle rustling / Inter-tribal or communal violence becomes a threat to project personnel – this is the key threat that the Security Management Plan seeks to address**
d. Industrial Action leading to strike or disruption of work, social conflict, civil unrest
e. Breakdown of relationships with Community groups and Committees
f. Reaction of community to an incident or accident involving project personnel or asset.
g. Threat of armed attack
h. Theft/ Larceny
i. Kidnapping

The principle threats are assessed as follows:

Threat	Likelihood	Impact
Site invasions	Medium	High
Banditry	Medium	High
Violent attack	Medium	High
Terrorism	Low	Medium
Targeted activism	Medium	Medium
Theft	Medium	Medium

Social conflits, civil un rest : The potential main risk is the general population including the local communities, who presume to have been aggrieved that can easily and quickly mobilize for a

demonstration. Compensation and environmental as well as social concerns can create this kind of scenario. The crowds will usually include villagers. Most of the time, negotiations can resolve the situation but in some cases an escalation can occur, leading to violent actions.

Any indications of such a threat must be communicated through the Office of the Resident District Commissioner, the District Police Commander and project local liaison officers at the Sub-county levels to the designated field Police officers at the nearest Police Post and complaints may be made to the officer-in-charge of a Police Station and be recorded in an occurrence book for future reference. Communication and Coordination is then picked up by the Office of the RDC who will coordinate between the Security apparatus and the project technical teams. These kinds of demonstrations can be handled by negotiation through the area local leaders and government entities. Technical discussions shall be led and guided by the Project Teams both at National, District, Sub-County and Parish levels. Local Structures including the GRCs shall be used as much as possible, including involving the Local Leaders.
National, District and local workers could also demonstrate, if there is a perceived discrimination and unfair working conditions in terms of wages, overtime and welfare. It is the responsibility of MAAIF and the UCSATP coordinating team to ensure that working conditions for all workers / employees are in line with the National Legal framework.

Criminal Offenses : The main risk remains small scale thefts of light equipment, fuel and personal effects which can involve aggressions. The project may be exposed to this kind of criminality.

Terrorism : There is the ever-imminent threat of terrorism from the lawless Allied Democratic Forces (ADF) rebels based in Democratic Republic of Congo and Al-shabab from neighbouring Somalia which could pose a serious threat to the implementation of the project.

Cattle rustling : Nomadic pastoralists in Northern Kenya and in the Karamoja Region in Uganda are known to be armed, and this poses a direct security risk to the smooth implementation of the project in the Karamoja area, especially if incidents of cattle rustling etc increase conflict between communities and ethnic groups therein. This is the likely risk that the project will have to address from time to time during project implementation, in order to ensure the safety of project staff and host community. NB: Care should be taken to ensure that security response or presence of security forces should not result in additional risks to communities or individuals within the project implementation areas.

ALERT STATES
MAAIF will adopt the UCSAT project area alert status in evoking the security state response levels, triggers and actions specific to the project site. Tables 10-3 with the colour shades of Green, Yellow, Orange and Red respectively are the security level responses to be adhered to:

Table 10-3: Security Response Level: Green- Business as Usual- Security Risks Effectively Controlled

Security Response Level GREEN Business as Usual- Security Risks Effectively Controlled	
Event Indicator	**Recommended Action(s)**
No direct threat exists and no incidents have taken place to warrant heightened security measures: This is the default threat level. There is no current, general, or undirected threat to government supported works projects within the	**No restriction to normal movement compliant with local Journey Management Plan (JMP) requirements. Staff and vehicles may move around the area within the protective envelope of the project area security.** • Complete all pre-planning actions • All visitors or returning staff receive an arrivals Security

Security Response Level GREEN Business as Usual- Security Risks Effectively Controlled	
Event Indicator	**Recommended Action(s)**
District. Under this level the status remains at GREEN. • Site operations are running normally with employees going about their lives with no, or very limited, restrictions. • There are no restrictions on vehicle movement or crew changes • Peaceful protest demonstrations take place. • Occasional unrest or demonstrations away from operational sites. No direct threat to the operation • Effective government control and/or rule of law in place. Liaison remains regular and effective • Continued good will of the majority of the local community remains assured	brief • Train staff and ensure awareness of actions to be taken-site drills. • Ensure JMP is in place and followed • All crisis management and evacuation plans are in place and are maintained as 'living documents' • The security situation, crime levels, political and social events are monitored closely. On-going collection and assessment of information through liaison with authorities and local community, • Ensure daily Personnel on Board (POB) is maintained. • All stakeholders are aware of the contents of the evacuation plan and understand their role within it • Vehicle Escorts taken when traveling to areas where civil unrest or cattle raids has occurred. • Maintain close liaison with Social Safeguards and good Community Relations

STANDARD OPERATING PROCEDURES

Project Security Assets

Police Foot Patrols and Escort:

Roles and responsibilities include:

- The conduct of regular inner peripheral patrols and reporting of findings to Control room.
- To ensure safe weapon handling and clearing is carried out at the unloading bays prior to entry to the guard rest area or main compound.
- Gathering information and intelligence by interaction with local people.
- Questioning of strangers or suspicious persons or vehicles.
- Observing physical signs or evidence of potential hostile activity or presence (Noise, footprints, fire traces, etc.) and reporting to Control Room.
- Developing Hearts & Minds assurances with the community of security in the Area.
- Developing community relations on behalf of UCSATP.
- Creating a deterrent factor by the presence of the patrol in the area

Centralized Mobile Police Patrols

- **Introduction**: The Centralized Police Mobile Patrols has responsibility for security of the entire project by patrolling the surrounding area, visiting areas of possible threat, local villages and satellite locations. Their secondary responsibility is to provide immediate reaction and support inner peripheral security,
- Roles and responsibilities include:
- The conduct of regular area patrols and reporting of findings Officer Commanding Station OCS
- To carry out pre-arranged visits to the Airstrip, boreholes, project active areas and other areas of interest.
- To react to Emergency situations as a Quick Reaction Force as directed OCS,
- To ensure safe weapon handling and clearing is carried out at the unloading bays prior to entry to the guard rest area or main compound,
- Gathering information and intelligence by interaction with & questioning of local people,
- Questioning of strangers or suspicious persons or vehicles,
- Developing Hearts & Minds assurances with the community of security in the Area,
- Developing community relations on behalf of UCSAT project,
- Creating a deterrent factor by the presence of the patrol in the area.

Base Camp Sites/Project Offices:

- Main Gate - Barrier Check of vehicle occupants and main gate access control. Random Cursory Vehicle

Security Response Level GREEN Business as Usual- Security Risks Effectively Controlled	
Event Indicator	**Recommended Action(s)**
searches on arrival and random checks (10% of vehicles) on departure to deter theft or when a vehicle is deemed suspicious. • Perimeter Foot Patrol – Daytime every hour at irregular times around camp/office perimeter. • Assist Journey Management with coordination of vehicles departing and arriving at camp/office, and the management of visitors. • Quick Reaction Force (QRF) (if allocated) specific to Contractor	

Table 10-4: Security Response Level: Yellow- Enhanced Security Measures Required

Security Response Level Yellow Enhanced Security Measures Required	
Event Indicator	**Recommended Action(s)**

Increased level of disturbance and/or increased probability of impact to operations. Sporadic civil disorder events (such as inter-ethnic cattle rustling/raids) common in the Karamoja Region in the UCSAT project. A direct threat has been detected to one or more areas of the operation but it is not considered imminent.
• Area-wide protests and/or strike action that do not directly impact project operations or personnel, but do present a risk to external logistical operations or works.
• Increase in inter-tribal and cross border violence adjacent to project area of operations or camp/office locations.
• Vehicle or aircraft movement is disrupted.
• Increased difficulty in accessing mission critical items or functions due to local security situation.
• Significant police or paramilitary deployment required to maintain rule of law; localized curfews in place.
• Heavy handed response from police and security service.
• Erosion of the support and good will of local communities.
• Difficulties in maintaining good relations with local authorities and traditional leaders.
• Livestock raids within close proximity of the field or
	Project operations continue. Enhanced security controls and operational restrictions required:
	• Necessary communications equipment Satellite Phones / Very Small Aperture Terminal & Very high frequency radio calls (SATPHONES/VSAT/VHF) available and all systems checked.
	• Ensure site specific plans are available to the FRT and have been revised and practiced.
	• Ensure all security, crisis and evacuation plan representatives' understand their roles and responsibilities.
	• Brief local security forces on roles and responsibilities and rules of engagement. Apply controls to ensure actions are tracked.
	• Review local security risks and controls; operating area Journey Management Plan- implements additional controls.
	• Maintain regular communication with all stakeholders, including authorities, local community, other sites and activities.
	• Daily call with Officer Commanding Station.
	• If situation likely to continue, re-assess stocks of resources at operational sites and ability to re-supply (food / water / fuel / people).
	• Verify POB and carry out muster drills,
	• Assess requirements to increase physical security controls, access, perimeter protection, and road escorts.
	• Issue "Business Essential" travel advisory (If not already done).
	• All employees are briefed / updated on the security situation and controls- revise the evacuation plan.
	• Confirm all expatriates registered with appropriate embassy and all visas and passports valid.
	• Consideration given to recommending changes to the daily routine to include:
	  ○ identification of any out of bounds areas;
	  ○ local travel restrictions;
	• Review which business critical and sensitive documents need to be protected and how.

Security Response Level **Yellow** **Enhanced Security Measures Required**	
Event Indicator	**Recommended Action(s)**
office/camp locations	
STANDARD OPERATING PROCEDURES	

These actions are in addition to the normal activities required at Security Status Green. Increased Actions are:

Police Foot Patrols:

Roles and responsibilities include:

- Reinforce office/camp sites entries.
- Conduct patrols around camp inner and exit gates.
- Off office/camp personnel interrogation.

Centralized Mobile Police Patrols

Armed Security Force (ASF):

Quick Reaction Force (QRF)4x Man armed team on standby within the office/camp on Notice to Move (NTM) States:

Daytime - No change. But to include:

- Local area patrols should increase and cover the clearance patrol area of a radius of 300m from the office/camp perimeter.
- Clearance Patrols must be completed after any suspicious activity is noted or the offices/camp is stood to.
- **Night time** – As per normal daytime QRF with second pair at 2 minutes NTM.
- **Mobile Patrol** – location of the threat will dictate the exact patrol requirement. Options:
- 1 x patrol performing routine zone patrols or operating in a screening role.

Project Offices/Camp Sites:

- Check ID along with Issued Badge for all External workers whenever arriving.
- All external contractor/vendor visits must have been notified to the Main Gate Reception in advance – no unexpected arrivals will be allowed at the entrance. As with Green all individuals and guests must be escorted by their host.
- Implementation of restricted access areas. Areas such as the offices/camp site will be by authorised badge only. Access point to be physically controlled.
- Lighting must cover all areas of the site to ensure guard force have clear visibility whilst conducting foot patrols.
- Vehicle checks will go up to 25% of vehicles (10% comprehensive, 15% cursory).
- Quick Reaction Force (QRF) (specific to Contractor)
- **Isolated Locations**
  Consider increasing security at isolated locations and field operations.
  .

Table 10-5: Security Response Level: Orange-Increased Security Measures

Security Response Level **Orange** **Implementation of Increased Security Controls and Preparation for Lock Down and/or Site Evacuation**	
Event Indicator	**Recommended Actions**

Security Response Level
Orange
Implementation of Increased Security Controls and Preparation for Lock Down and/or Site Evacuation

Event Indicator	Recommended Actions
Significant obstacle or direct threat has been detected to operations and is deemed imminent, or a security incident has taken place close to one of the project sites: • Wide spread civil unrest, cattle raids and/or ethnic clashes, and disarmament exercise not contained by police or paramilitary forces. • Frequent acts of violence close to project operations. • UCSAT project activities specifically threatened and/or targeted. • Reinforcement of police by military forces to enforce martial law and impose curfews in key areas. • Substantial political or inter-tribal violence • Government ordered curfew in place • Law and order become fragile, shortages of food/water/supplies/power/communication outages. • Failure to observe security restrictions regarded as life-threatening. • Loss of support and good will of majority of local community, • Liaison with authorities and traditional leaders breaks down	**Project operations are suspended. Significant increase in security controls and operational restrictions. All movement outside project offices/ camps ceases.** • All external movement ceases • Twice daily call schedule with Client Security Manager • Ensure sites including plant, machinery and equipment are secured – security protection in place. • Consider further increase in security controls including; further reinforcement of security guarding, (police/army support) and asset hardening of critical equipment and safe havens. • Briefings to local security forces on roles and responsibilities- liaison with local commanders increased. • Consider resupply requirements for all locations and caretaker maintenance and security of unmanned locations. • Instigate evacuation drills and brief all staff on actions • Pack grab bags and ensure POB and documentation is available • Prepare vehicles for possible road moves and ensure thorough rehearsals have been conducted for any moves under escort.

STANDARD OPERATING PROCEDURES

These actions are in addition to the normal activities operating at Security Status Yellow. Increased Actions:

<u>Police Foot Patrols:</u>

- Reinforce Project Office/Camp main gate and Emergency Exits security.
- Conduct thorough searches on the arrivals.
- Ensure all gates within the Offices/camp/s are padlocked.
- Intensify inner perimeter patrols.

<u>Centralized Mobile Police Patrols</u>

- Inner perimeter fence 360 area check.
- Ready to react to emergency.
- Main gate and Emergency Exit manning.
- Should be ready for escort tasks.
- Questioning strangers or suspicious persons or vehicles.
- Developing hearts and minds assurance.

<u>Project Offices/Base Camp Sites:</u>

- Amber checks as standard but now there will also be cross checks at individual's place of work.
- Essential visitors only are given access.
- Vendors and local contractors must be escorted at all times, even when moving vehicles to a site of work.
- All vehicles will have complete cargo manifest checked against cargo on entry and exit.
- 100% of vehicles to have a cursory vehicle check.
- Exit Vehicle checks must consist of 25% comprehensive vehicle searches.
- Local area patrols should increase and cover the clearance patrol area at a radius of 300m from the

Security Response Level Orange Implementation of Increased Security Controls and Preparation for Lock Down and/or Site Evacuation	
Event Indicator	**Recommended Actions**
office/camp perimeter. • Increased internal and external patrols – for extended periods this will require an increase in manpower. • Static guards to be paired. • Armed guards to operate in support of main gate. • Physical placement of chicane and main gate entry obstacles to stop forced access. For a site to operate at Status Orange for more than a short period, the physical security measures below must be implemented and fitted: • Key locations must have physical deterrent measures such as bars fitted to windows. • Guard Force unarmed and armed to be supplemented. • Improvements to be made to the number and quality of the work force safe muster areas. • Further integration with state police and military forces – wider area patrolling and vehicle check points.	

Table 10-6: Security Response Level: Red-Cease Operations, Lock down & Evacuation

Security Response Level RED Cease Operations and Lock Down or Evacuate Site	
Event Indicator	**Recommended Actions**
The operation has experienced a direct attack or there is credible evidence of an imminent attack. • Direct threats against project operations • Major civil disorder in areas of operation • Lines of supply untenable (road closures / security risks) • Total collapse of law and order • Diplomatic missions advise nationals to leave. • No or limited local security forces protection • Security force reaction may damage reputation • Major difficulties in accessing basic necessities • Frequent power and communications disruption.	**Suspension of operations and/or activation of total lock down or evacuation plan:** • Confirm operational plan and nomination of alternative managers or key points of contact during evacuation. • Implement evacuation plan • Ensure adequate caretaker security in place if full operations are suspended. • Ensure all critical or sensitive documents have been collected and are readies for destruction or removal • Detailed briefing of all remaining personnel on situation and emergency response plans. • Provide ongoing communications, guidance and assistance to local and security staff remaining in country • Finalize plans for remote management of operations if full evacuation is implemented.
STANDARD OPERATING PROCEDURES	

Security Response Level
RED
Cease Operations and Lock Down or Evacuate Site

These actions apply to ensure the project area and offices/camps are locked down to maintain the security of the core staff, whilst the UCSAT project Incident Management Team decides on the final course of action.
Increased Actions:

Police Foot Patrols:

- Main gate Sentry reinforcement.
- Intensify inner perimeter patrols.
- POB confirmation.
- Conducting thorough searches at the main gate.
- Ensure all exits are padlocked.
- Reporting suspicious activities to the control room.

Centralized Mobile Police Patrols:

- Inner perimeter fence 360 area check.
- Ready to react to emergency.
- Main gate and Emergency Exit manning.
- Should be ready for escort tasks.
- Questioning strangers or suspicious persons or vehicles.
- Developing hearts and minds assurance.

Project Offices/ Camp Sites:

- Main gate and all access routes closed and secured with vehicle entry prevention devices. This is in addition to vehicle tyre spikes.
- No access allowed unless authorised by security management. If authorised Red measures apply and all vehicles are searched comprehensively.
- No vehicle is authorised to move in or out of the perimeter unless directed by the security advisor.
- Static guards reinforced by armed police or military if available. All perimeter patrols and main gate to operate with an armed presence as well as the unarmed guard.
- Wider patrolling only as situation requires, as this should be done with coordination of any military presence.
- Perimeter is secured so internal and external patrols are stopped to provide manpower to reinforce the perimeter security.
- Internal security patrols to ensure direct observation on the perimeter at all times.

It is anticipated that local or regional events (triggers), will be linked to the alert status; the local security situation will be monitored daily and all available information assessed to ensure early identification of increases in risk which may require a change in alert state. Changing of rating level will be done on instruction from the UCSAT project office.

Alert levels provide specific guidance on recommended security measures and actions to be adopted on the basis of the prevailing security situation, locally, nationally and internationally, ultimately taking into consideration security context issues at a given USCAT project location.

Local and regional events (triggers) will be linked to the alert Districts; the local security situation will be monitored daily and all available information assessed to ensure early identification of increases in risk, which may require a change in alert state.

Changing of rating level will be done on instruction from the UCSAT project office.

Alert levels provide specific guidance on recommended security measures and actions to be adopted based on the prevailing security situation, locally, nationally and internationally.

ALERT STATE STATUS BOARDS

Alert State boards are to be displayed at the camp/ project offices and indicate the current security alert state and associated restrictions to movement in the project area. Movement restrictions are to be covered in Journey Management Plan.

SITE SECURITY LAYERS

All project facilities will undergo the following security layers/protocols.

i. Physical security (guards).
ii. Access control system.
iii. Intelligence Network.
iv. Security induction.
v. Awareness.
vi. Trainings.

These different security layers together reduce the risk of having one system being by-passed. They are implemented by the Security commanders.

Physical Security

Physical security will involve the use of security barriers, such as fences, gates, locks, guard posts, surveillance/electronic security systems used, and the overall security management system at all the project premises.

Security barriers

These will mainly comprise of fences, gates, guard posts, surveillance / electronic cameras which will be manned by trained personnel who shall document and record daily incidents at the various points and provide reports to their superiors for appropriate action.

Security operating Procedures

This shall entail some of the key security operating procedures which will comprise of:

a. ***Boundary security:*** Security will maintain control of the project's perimeter by deploying personnel at strategic points along the boundaries of the project facilities and also channel people to access-control points that will have security personnel (both armed and unarmed as well as those in uniform and non-uniformed personnel);
b. ***Access Control Policy and Procedures:*** Access to project sites will by project personnel and visitors will be through a formal, documented access control procedures to facilitate the implementation of access control policy and associated access controls. MAAIF personnel will be issued with badges and will at all times carry and display these badges when in the field. The badges will enable the bearer to access project facilities upon site security enquiry. Visitor badges will be issued to all visitors who are not employees of MAAIF.
c. ***Unexpected/Unplanned Visitors:*** In case of unexpected (unplanned) visitors, the OCS will be notified immediately by the security officers, access endorsement/authorization will be issued only by the OCS after consultation with the Project Coordinator, and thereafter a visitor's badge will be issued. The visit should not exceed few hours and they must be accompanied by the project personnel /staff in charge of the visit at all times.
d. ***Visitor Badge Process:*** Visitors Badge will be issued after the visitor has been authorised by the site security managers. The visitor will then fill a visitor form providing all his details and purpose of the visit. A badge will then be processed and issued by the Access control office. Security induction must be done before the Badge is issued to the applicant by Security officer and the visitor must sign on the induction document for acknowledgement. A data file with information regarding the visitor will be recorded and kept in the site access register.

e. ***Luggage search:*** A search of personal luggage will be performed by the guards at the access control point to ensure no access of all the prohibited items into the project facilities like: - Alcoholic Beverages, Firearms, knives and dangerous drugs are not smuggled onto project facilities.
f. ***Vehicle Access Control Procedures:*** All Vehicles accessing project facilities will be accessed through with the driver only after going through a security check/search for prohibited items i.e. Alcohol Beverages, Firearms, Knives and dangerous drugs. The driver must declare his entire luggage at the main gate (Personal luggage) for checking as well.
g. ***Materials Storage and Control:*** *w*here applicable, the project will institute controls over the transport, inventory, and maintenance of storage areas for raw materials, equipment, etc. Note that these are stored in accordance with appropriate Ugandan national laws and regulations and relevant good international industry practice, including the World Bank Group Environmental, Health and Safety Guidelines.
h. ***Information and Communication:*** The project will detail procedures for categorizing, handling, and controlling sensitive information.
i. ***Firearms Security:*** The project will develop a policy regarding firearms on-site, as well as the responsibilities and procedures for issuing and storing any security firearms, ammunition, and non-lethal weapons. This shall include: location for storage; how weapons are properly secured during storage; records for issuance; who they may be issued to; safeguarding while in possession of the personnel; and audits.
j. ***Special Situations:*** There may be instances where large-scale events (e.g., criminal activity, demonstrations, civil disorder, cattle rustling/raids, etc) require interventions by public security which is not specifically associated with the project. When planning for such events or emergencies, there shall be clarity on how project security passes control over to formal public security (for example, police, military, emergency responders in line with the National Police Service procedures.

SECURITY SUPERVISION AND CONTROL

The project will have a clearly defined management structure and responsibility, including overall lines of control, accountability, and supervision for the security effort. All incidents including thefts, attempted, attempted break-ins must be reported to the OCS and recorded in the occurrence book, who will initiate an investigation to determine sequence of events, what may have contributed to the incident, probable cause(s) and contributing factors), and recommendations, corrective actions, and mitigation measures (based on investigative findings) – an incident report will be issued to the Project Coordinator with details of the above actions. Depending on the security incident, the Project Coordinator will decide as to whether there is need to inform external agencies of the security incident. Project organization will require security personnel to manage security aspects.

Security Organisation

All security activities are supervised and coordinated by the OCS on behalf of the Project Coordinator. The organisation of security responsibilities, authorities and communication process shall follow Government of Uganda (GoU) organisation from project management down through the project staff when communicating instructions and from the appropriate personnel through the hierarchy to project management when reporting security breaches or vice-versa as the case may be**.**

District Project Coordinator/ District Project Implementation Team (DIT) is the responsible person of the operations on site within the framework of his responsibility he is accountable of the security and he has under his authority security personnel in charge of site security.

Security Team / Officers will be appointed to oversee all security activities for project sites (offices, storage and lay down areas, work sites, field transportation and day to day operations). They will supervise all project security activities and report directly to the Project Coordinator.

All project personnel are required to be aware of the need for constant vigilance, care and compliance with security procedures, as well as the necessity to report any incident or suspicion to the OCS.

Officer Commanding Station (OCS): Security personnel; the police/army will be deployed to provide security to all project sites and facilities to be headed by OCS. The police/army officers have been trained on the following specific topics; securing project sites, patrols, communication, management of crowds/ riots with in accordance with principles of proportionality and GIIP, rules of conduct, use of radio call units, Quick intervention and access control procedures. They are professional with a very good appearance and good English and Swahili command in terms of spoken and written. Their roles and responsibilities are detailed below;

- To Implement the Standard Operating Procedures properly without fear or discrimination.
- To ensure respect of the access control procedures and make sure that they are applied to all project personnel.
- Perform interior Patrols days and nights to ensure that the national borders are intact or no intruders within the project facilities.
- Check the border status on a regular basis using back tracking security method.
- To report any security incident to the guard posts or security commanders.
- Maintain constant communication with the control room on hourly basis while on duty.
- Report to the control room in case of any technical issues.
- Ensure a proper behaviour at all time while applying the SOP; avoid exchanging of words with the project staff.

JOURNEY MANAGEMENT

The National Project Coordinator has the overarching responsibility for project-wide journey management. This is delegated to the District Project Coordinator (on behalf of DITs) who will monitor all staff in while in the field through the journey management system in collaboration with the District Environment and Community Development officers. A journey management log is to be maintained at the control room whereupon vehicle movements are logged and monitored. This should be shared to the District and National PCU safeguards team by email. Project staff will be required to complete a Journey Management Plan form, which has to be authorised by the project Coordinator. All staff will be required to inform the Control Room on arrival and departure to update the POB.

COMMUNICATIONS

A Radio network controlled from the Control Room under the direction of the OCS is established at the camp/project offices in order to maintain control and to monitor the movement of personnel and vehicles within and around the vicinity of the project area. Beyond the range of local radio nets, communication is by mobile or satellite phone. Journey management will require periodic contact via radio or telephone in order to monitor the location of personnel. The Control Room will be manned by English/ Swahili speaking person who will be required to monitor all radio communications by day and whilst any project personnel are deployed at night. The ASF are to be integrated into the communications plan in order to allow effective command and control and immediate reaction to emergency situations once sufficient assets are on site.

ALARMS

Alarms (Hand winding and electric sirens) for emergencies are to be held at the Control Room. All security related incidents shall be document in the Security Log Event on **Error! Reference source not found.**.

Table 10-7: Security Occurrence Book/Log Matrix

Security Log Event.			
DATE	TIME	INCIDENT	Event Logger: Name +Signature
TIME	**DEVELOPMENT/ACTIONS TAKEN**		

10.6 ANNEX 6: ESF/SAFEGUARDS INTERIM NOTE: COVID-19 CONSIDERATIONS IN CONSTRUCTION/CIVIL WORKS PROJECTS (WORLD BANK, 2020)

This note was issued on April 7, 2020 and includes links to the latest guidance as of this date (e.g. from WHO). Given the COVID-19 situation is rapidly evolving, when using this note it is important to check whether any updates to these external resources have been issued.

INTRODUCTION

This Interim Note is intended to provide guidance to teams on how to support Borrowers in addressing key issues associated with COVID-19, and consolidates the advice that has already been provided over the past month. As such, it should be used in place of other guidance that has been provided to date. This note will be developed as the global situation and the Bank's learning (and that of others) develops. This is not a time when 'one size fits all'. More than ever, teams will need to work with Borrowers and projects to understand the activities being carried out and the risks that these activities may entail. Support will be needed in designing mitigation measures that are implementable in the context of the project. These measures will need to consider capacity of the Government agencies, availability of supplies and the practical challenges of operations on-the-ground, including stakeholder engagement, supervision and monitoring. In many circumstances, communication itself may be challenging, where face-to-face meetings are restricted or prohibited, and where IT solutions are limited or unreliable.

This note emphasizes the importance of careful scenario planning, clear procedures and protocols, management systems, effective communication and coordination, and the need for high levels of responsiveness in a changing environment. It recommends assessing the current situation of the project, putting in place mitigation measures to avoid or minimize the chance of infection, and planning what to do if either project workers become infected or the work force includes workers from proximate communities affected by COVID-19. In many projects, measures to avoid or minimize will need to be implemented at the same time as dealing with sick workers and relations with the community, some of whom may also be ill or concerned about infection. Borrowers should understand the obligations that contractors have under their existing contracts (see Section 3), require contractors to put in place appropriate organizational structures (see Section 4) and develop procedures to address different aspects of COVID-19 (see Section 5).

Challenges with construction/civil works

Projects involving construction/civil works frequently involve a large work force, together with suppliers and supporting functions and services. The work force may comprise workers from international, national, regional, and local labour markets. They may need to live in on-site accommodation, lodge within communities close to work sites or return to their homes after work. There may be different contractors

permanently present on site, carrying out different activities, each with their own dedicated workers. Supply chains may involve international, regional and national suppliers facilitating the regular flow of goods and services to the project (including supplies essential to the project such as fuel, food, and water). As such there will also be regular flow of parties entering and exiting the site; support services, such as catering, cleaning services, equipment, material and supply deliveries, and specialist sub-contractors, brought in to deliver specific elements of the works.

Given the complexity and the concentrated number of workers, the potential for the spread of infectious disease in projects involving construction is extremely serious, as are the implications of such a spread. Projects may experience large numbers of the work force becoming ill, which will strain the project's health facilities, have implications for local emergency and health services and may jeopardize the progress of the construction work and the schedule of the project. Such impacts will be exacerbated where a work force is large and/or the project is in remote or under-serviced areas. In such circumstances, relationships with the community can be strained or difficult and conflict can arise, particularly if people feel they are being

exposed to disease by the project or are having to compete for scarce resources. The project must also exercise appropriate precautions against introducing the infection to local communities.

Does the construction contract cover this situation?

Given the unprecedented nature of the COVID-19 pandemic, it is unlikely that the existing construction/civil works contracts will cover all the things that a prudent contractor will need to do. Nevertheless, the first place for a Borrower to start is with the contract, determining what a contractor's existing obligations are, and how these relate to the current situation.

The obligations on health and safety will depend on what kind of contract exists (between the Borrower and the main contractor; between the main contractors and the sub-contractors). It will differ if the Borrower used the World Bank's standard procurement documents (SPDs) or used national bidding documents. If a FIDIC document has been used, there will be general provisions relating to health and safety. For example, the standard FIDIC, Conditions of Contract for Construction (Second Edition 2017), which contains no 'ESF enhancements', states (in the General Conditions, clause 6.7) that the Contractor will be required:

- to take all necessary precautions to maintain the health and safety of the Contractor's Personnel
- to appoint a health and safety officer at site, who will have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorized to enter and or work on the site and to take protective measures to prevent accidents
- to ensure, in collaboration with local health authorities, that medical staff, first aid facilities, sick bay, ambulance services and any other medical services specified are available at all times at the site and at any accommodation
- to ensure suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics
- These requirements have been enhanced through the introduction of the ESF into the SPDs (edition dated July 2019). The general FIDIC clause referred to above has been strengthened to reflect the requirements of the ESF. Beyond FIDIC's general requirements discussed above, the Bank's Particular Conditions include a number of relevant requirements on the Contractor, including:
- to provide health and safety training for Contractor's Personnel (which include project workers and all personnel that the Contractor uses on site, including staff and other employees of the Contractor and Subcontractors and any other personnel assisting the Contractor in carrying out project activities)
- to put in place workplace processes for Contractor's Personnel to report work situations that are not safe or healthy
- gives Contractor's Personnel the right to report work situations which they believe are not safe or healthy, and to remove themselves from a work situation which they have a reasonable justification to believe presents an imminent and serious danger to their life or health (with no reprisal for reporting or removing themselves)
- requires measures to be in place to avoid or minimize the spread of diseases including measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent contract-related labor
- to provide an easily accessible grievance mechanism to raise workplace concerns

Where the contract form used is FIDIC, the Borrower (as the Employer) will be represented by the Engineer (also referred to in this note as the Supervising Engineer). The Engineer will be authorized to exercise authority specified in or necessarily implied from the construction contract. In such cases, the Engineer (through its staff on site) will be the interface between the PIU and the Contractor. It is important therefore to understand the scope of the Engineer's responsibilities. It is also important to recognize that in the case of infectious diseases such as COVID-19, project management – through the Contractor/subcontractor hierarchy – is only as effective as the weakest link. A thorough review of management procedures/plans as they will be implemented through the entire contractor hierarchy is important. Existing contracts provide

the outline of this structure; they form the basis for the Borrower to understand how proposed mitigation measures will be designed and how adaptive management will be implemented, and to start a conversation with the Contractor on measures to address COVID-19 in the project.

What planning should the borrower be doing?

Task teams should work with Borrowers (PIUs) to confirm that projects (i) are taking adequate precautions to prevent or minimize an outbreak of COVID-19, and (ii) have identified what to do in the event of an outbreak. Suggestions on how to do this are set out below:

- The PIU, either directly or through the Supervising Engineer, should request details in writing from the main Contractor of the measures being taken to address the risks. As stated in Section 3, the construction contract should include health and safety requirements, and these can be used as the basis for identification of, and requirements to implement, COVID-19 specific measures. The measures may be presented as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures. The measures may be reflected in revisions to the project's health and safety manual. This request should be made in writing (following any relevant procedure set out in the contract between the Borrower and the contractor).
- In making the request, it may be helpful for the PIU to specify the areas that should be covered. This should include the items set out in Section 5 below and consider current and relevant
- guidance provided by national authorities, WHO and other organizations. See the list of references in the Annex to this note.
- The PIU should require the Contractor to convene regular meetings with the project health and safety specialists and medical staff (and where appropriate the local health authorities), and to take their advice in designing and implementing the agreed measures.
- Where possible, a senior person should be identified as a focal point to deal with COVID-19 issues. This can be a work supervisor or a health and safety specialist. This person can be responsible for coordinating preparation of the site and making sure that the measures taken are communicated to the workers, those entering the site and the local community. It is also advisable to designate at least one back-up person, in case the focal point becomes ill; that person should be aware of the arrangements that are in place.
- On sites where there are a number of contractors and therefore (in effect) different work forces, the request should emphasize the importance of coordination and communication between the different parties. Where necessary, the PIU should request the main contractor to put in place a protocol for regular meetings of the different contractors, requiring each to appoint a designated staff member (with back up) to attend such meetings. If meetings cannot be held in person, they should be conducted using whatever IT is available. The effectiveness of mitigation measures will depend on the weakest implementation, and therefore it is important that all contractors and sub-contractors understand the risks and the procedure to be followed.
- The PIU, either directly or through the Supervising Engineer, may provide support to projects in identifying appropriate mitigation measures, particularly where these will involve interface with local services, in particular health and emergency services. In many cases, the PIU can play a valuable role in connecting project representatives with local Government agencies, and helping coordinate a strategic response, which considers the availability of resources. To be most effective, projects should consult and coordinate with relevant Government agencies and other projects in the vicinity.
- Workers should be encouraged to use the existing project grievance mechanism to report concerns relating to COVID-19, preparations being made by the project to address COVID-19 related issues, how procedures are being implemented, and concerns about the health of their co-workers and other staff.

What should the contractor cover?

The Contractor should identify measures to address the COVID-19 situation. What will be possible will depend on the context of the project: the location, existing project resources, availability of supplies, capacity of local emergency/health services, the extent to which the virus already exist in the area. A systematic approach to planning, recognizing the challenges associated with rapidly changing circumstances, will help the project put in place the best measures possible to address the situation. As discussed above, measures to address COVID-19 may be presented in different ways (as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures). PIUs and contractors should refer to guidance issued by relevant authorities, both national and international (e.g. WHO), which is regularly updated.

Addressing COVID-19 at a project site goes beyond occupational health and safety, and is a broader project issue which will require the involvement of different members of a project management team. In many cases, the most effective approach will be to establish procedures to address the issues, and then to ensure that these procedures are implemented systematically. Where appropriate given the project context, a designated team should be established to address COVID-19 issues, including PIU representatives, the Supervising Engineer, management (e.g. the project manager) of the contractor and sub-contractors, security, and medical and OHS professionals. Procedures should be clear and straightforward, improved as necessary, and supervised and monitored by the COVID-19 focal point(s). Procedures should be documented, distributed to all contractors, and discussed at regular meetings to facilitate adaptive management. The issues set out below include a number that represent expected good workplace management but are especially pertinent in preparing the project response to COVID-19.

Assessing workforce characteristics

Many construction sites will have a mix of workers e.g. workers from the local communities; workers from a different part of the country; workers from another country. Workers will be employed under different terms and conditions and be accommodated in different ways. Assessing these different aspects of the workforce will help in identifying appropriate mitigation measures:

- The Contractor should prepare a detailed profile of the project work force, key work activities, schedule for carrying out such activities, different durations of contract and rotations (e.g. 4 weeks on, 4 weeks off).
- This should include a breakdown of workers who reside at home (i.e. workers from the community), workers who lodge within the local community and workers in on-site accommodation. Where possible, it should also identify workers that may be more at risk from COVID-19, those with underlying health issues or who may be otherwise at risk.
- Consideration should be given to ways in which to minimize movement in and out of site. This could include lengthening the term of existing contracts, to avoid workers returning home to affected areas, or returning to site from affected areas.
- Workers accommodated on site should be required to minimize contact with people near the site, and in certain cases be prohibited from leaving the site for the duration of their contract, so that contact with local communities is avoided.
- Consideration should be given to requiring workers lodging in the local community to move to site accommodation (subject to availability) where they would be subject to the same restrictions.
- Workers from local communities, who return home daily, weekly or monthly, will be more difficult to manage. They should be subject to health checks at entry to the site (as set out above) and at some point, circumstances may make it necessary to require them to either use accommodation on site or not to come to work.

Entry/exit to the work site and checks on commencement of work

Entry/exit to the work site should be controlled and documented for both workers and other parties, including support staff and suppliers. Possible measures may include:

a. Establishing a system for controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points (if they do not already exist). Entry/exit to the site should be documented.
b. Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviours required of them in enforcing such system and any COVID - 19 specific considerations.
c. Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks and recording details of any worker that is denied entry.
d. Confirming that workers are fit for work before they enter the site or start work. While procedures should already be in place for this, special attention should be paid to workers with underlying health issues or who may be otherwise at risk. Consideration should be given to demobilization of staff with underlying health issues.
e. Checking and recording temperatures of workers and other people entering the site or requiring self-reporting prior to or on entering the site.
f. Providing daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures, using demonstrations and participatory methods.
g. During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.
h. Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.
i. Preventing a sick worker from entering the site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days.

General hygiene

Requirements on general hygiene should be communicated and monitored, to include:

a. Training workers and staff on site on the signs and symptoms of COVID-19, how it is spread, how to protect themselves (including regular handwashing and social distancing) and what to do if they or other people have symptoms (for further information see WHO COVID-19 advice for the public).
b. Placing posters and signs around the site, with images and text in local languages.
c. Ensuring handwashing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout site, including at entrances/exits to work areas; where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. Where handwashing facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol based sanitizer (if available, 60-95% alcohol) can also be used.
d. Review worker accommodations, and assess them in light of the requirements set out in IFC/EBRD guidance on Workers' Accommodation: processes and standards, which provides valuable guidance as to good practice for accommodation.
e. Setting aside part of worker accommodation for precautionary self-quarantine as well as more formal isolation of staff who may be infected (see paragraph (f)).

Cleaning and waste disposal

Conduct regular and thorough cleaning of all site facilities, including offices, accommodation, canteens, common spaces. Review cleaning protocols for key construction equipment (particularly if it is being operated by different workers). This should include:

a. Providing cleaning staff with adequate cleaning equipment, materials and disinfectant.
b. Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas.

c. Where it is anticipated that cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, providing them with appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, cleaners should be provided with best available alternatives.
d. Training cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).
e. Any medical waste produced during the care of ill workers should be collected safely in designated containers or bags and treated and disposed of following relevant requirements (e.g., national, WHO). If open burning and incineration of medical wastes is necessary, this should be for as limited a duration as possible. Waste should be reduced and segregated, so that only the smallest amount of waste is incinerated (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19).

Adjusting work practices

Consider changes to work processes and timings to reduce or minimize contact between workers, recognizing that this is likely to impact the project schedule. Such measures could include:

a. Decreasing the size of work teams.
b. Limiting the number of workers on site at any one time.
c. Changing to a 24-hour work rotation.
d. Adapting or redesigning work processes for specific work activities and tasks to enable social distancing, and training workers on these processes.
e. Continuing with the usual safety trainings, adding COVID-19 specific considerations. Training should include proper use of normal PPE. While as of the date of this note, general advice is that construction workers do not require COVID-19 specific PPE, this should be kept under review (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
f. Reviewing work methods to reduce use of construction PPE, in case supplies become scarce or the PPE is needed for medical workers or cleaners. This could include, e.g. trying to reduce the need for dust masks by checking that water sprinkling systems are in good working order and are maintained or reducing the speed limit for haul trucks.
g. Arranging (where possible) for work breaks to be taken in outdoor areas within the site.
h. Consider changing canteen layouts and phasing meal times to allow for social distancing and phasing access to and/or temporarily restricting access to leisure facilities that may exist on site, including gyms.
i. At some point, it may be necessary to review the overall project schedule, to assess the extent to which it needs to be adjusted (or work stopped completely) to reflect prudent work practices, potential exposure of both workers and the community and availability of supplies, considering Government advice and instructions.

Project medical services

Consider whether existing project medical services are adequate, considering existing infrastructure (size of clinic/medical post, number of beds, isolation facilities), medical staff, equipment and supplies, procedures and training. Where these are not adequate, consider upgrading services where possible, including:

a. Expanding medical infrastructure and preparing areas where patients can be isolated. Guidance on setting up isolation facilities is set out in WHO interim guidance on considerations for quarantine of individuals in the context of containment for COVID-19). Isolation facilities should be located away from worker accommodation and ongoing work activities. Where possible, workers should be provided with a single well-ventilated room (open windows and door). Where this is not possible, isolation facilities should allow at least 1 meter between workers in the same room, separating workers with curtains, if possible. Sick workers should limit their movements, avoiding common areas and facilities and not be allowed visitors until they have been clear of symptoms for 14 days. If they need to use

common areas and facilities (e.g. kitchens or canteens), they should only do so when unaffected workers are not present and the area/facilities should be cleaned prior to and after such use.

b. Training medical staff, which should include current WHO advice on COVID-19 and recommendations on the specifics of COVID-19. Where COVID-19 infection is suspected, medical providers on site should follow WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected.
c. Training medical staff in testing, if testing is available.
d. Assessing the current stock of equipment, supplies and medicines on site, and obtaining additional stock, where required and possible. This could include medical PPE, such as gowns, aprons, medical masks, gloves, and eye protection. Refer to WHO guidance as to what is advised (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
e. If PPE items are unavailable due to world-wide shortages, medical staff on the project should agree on alternatives and try to procure them. Alternatives that may commonly be found on constructions sites include dust masks, construction gloves and eye goggles. While these items are not recommended, they should be used as a last resort if no medical PPE is available.
f. Ventilators will not normally be available on work sites, and in any event, intubation should only be conducted by experienced medical staff. If a worker is extremely ill and unable to breathe properly on his or her own, they should be referred immediately to the local hospital (see (g) below).
g. Review existing methods for dealing with medical waste, including systems for storage and disposal (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19, and WHO guidance on safe management of wastes from health-care activities).

local medical and other services

Given the limited scope of project medical services, the project may need to refer sick workers to local medical services. Preparation for this includes:

a. Obtaining information as to the resources and capacity of local medical services (e.g. number of beds, availability of trained staff and essential supplies).
b. Conducting preliminary discussions with specific medical facilities, to agree what should be done in the event of ill workers needing to be referred.
c. Considering ways in which the project may be able to support local medical services in preparing for members of the community becoming ill, recognizing that the elderly or those with pre-existing medical conditions require additional support to access appropriate treatment if they become ill.
d. Clarifying the way in which an ill worker will be transported to the medical facility, and checking availability of such transportation.
e. Establishing an agreed protocol for communications with local emergency/medical services.
f. Agreeing with the local medical services/specific medical facilities the scope of services to be provided, the procedure for in-take of patients and (where relevant) any costs or payments that may be involved.
g. A procedure should also be prepared so that project management knows what to do in the unfortunate event that a worker ill with COVID-19 dies. While normal project procedures will continue to apply, COVID-19 may raise other issues because of the infectious nature of the disease. The project should liaise with the relevant local authorities to coordinate what should be done, including any reporting or other requirements under national law.

Instances or spread of the virus

WHO provides detailed advice on what should be done to treat a person who becomes sick or displays symptoms that could be associated with the COVID-19 virus (for further information see WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected). The project should set out risk-based procedures to be followed, with differentiated approaches based on case severity (mild, moderate, severe, critical) and risk factors (such as age,

hypertension, diabetes) (for further information see WHO interim guidance on operational considerations for case management of COVID-19 in health facility and community). These may include the following:

a. If a worker has symptoms of COVID-19 (e.g. fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on site.
b. If testing is available on site, the worker should be tested on site. If a test is not available at site, the worker should be transported to the local health facilities to be tested (if testing is available).
c. If the test is positive for COVID-19 or no testing is available, the worker should continue to be isolated. This will either be at the work site or at home. If at home, the worker should be transported to their home in transportation provided by the project.
d. Extensive cleaning procedures with high-alcohol content disinfectant should be undertaken in the area where the worker was present, prior to any further work being undertaken in that area. Tools used by the worker should be cleaned using disinfectant and PPE disposed of.
e. Co-workers (i.e. workers with whom the sick worker was in close contact) should be required to stop work, and be required to quarantine themselves for 14 days, even if they have no symptoms.
f. Family and other close contacts of the worker should be required to quarantine themselves for 14 days, even if they have no symptoms.
g. If a case of COVID-19 is confirmed in a worker on the site, visitors should be restricted from entering the site and worker groups should be isolated from each other as much as possible.
h. If workers live at home and has a family member who has a confirmed or suspected case of COVID-19, the worker should quarantine themselves and not be allowed on the project site for 14 days, even if they have no symptoms.
i. Workers should continue to be paid throughout periods of illness, isolation or quarantine, or if they are required to stop work, in accordance with national law.
j. Medical care (whether on site or in a local hospital or clinic) required by a worker should be paid for by the employer.

Continuity of supplies and project activities

Where COVID-19 occurs, either in the project site or the community, access to the project site may be restricted, and movement of supplies may be affected.

a. Identify back-up individuals, in case key people within the project management team (PIU, Supervising Engineer, Contractor, sub-contractors) become ill, and communicate who these are so that people are aware of the arrangements that have been put in place.
b. Document procedures, so that people know what they are, and are not reliant on one person's knowledge.
c. Understand the supply chain for necessary supplies of energy, water, food, medical supplies and cleaning equipment, consider how it could be impacted, and what alternatives are available. Early pro-active review of international, regional and national supply chains, especially for those supplies that are critical for the project, is important (e.g. fuel, food, medical, cleaning and other essential supplies). Planning for a 1-2month interruption of critical goods may be appropriate for projects in more remote areas.
d. Place orders for/procure critical supplies. If not available, consider alternatives (where feasible).
e. Consider existing security arrangements, and whether these will be adequate in the event of interruption to normal project operations.
f. Consider at what point it may become necessary for the project to significantly reduce activities or to stop work completely, and what should be done to prepare for this, and to re-start work when it becomes possible or feasible.

Training and communication with workers

Workers need to be provided with regular opportunities to understand their situation, and how they can best protect themselves, their families and the community. They should be made aware of the procedures that have been put in place by the project, and their own responsibilities in implementing them.

a. It is important to be aware that in communities close to the site and amongst workers without access to project management, social media is likely to be a major source of information. This raises the importance of regular information and engagement with workers (e.g. through training, town halls, tool boxes) that emphasizes what management is doing to deal with the risks of COVID-19. Allaying fear is an important aspect of work force peace of mind and business continuity. Workers should be given an opportunity to ask questions, express their concerns, and make suggestions.
b. Training of workers should be conducted regularly, as discussed in the sections above, providing workers with a clear understanding of how they are expected to behave and carry out their work duties.
c. Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work.
d. Training should cover all issues that would normally be required on the work site, including use of safety procedures, use of construction PPE, occupational health and safety issues, and code of conduct, considering that work practices may have been adjusted.
e. Communications should be clear, based on fact and designed to be easily understood by workers, for example by displaying posters on handwashing and social distancing, and what to do if a worker displays symptoms.

Communication and contact with the community

Relations with the community should be carefully managed, with a focus on measures that are being implemented to safeguard both workers and the community. The community may be concerned about the presence of non-local workers, or the risks posed to the community by local workers presence on the project site. The project should set out risk-based procedures to be followed, which may reflect WHO guidance (for further information see WHO Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19 Preparedness and Response). The following good practice should be considered:

a. Communications should be clear, regular, based on fact and designed to be easily understood by community members;
b. Communications should utilize available means. In most cases, face-to-face meetings with the community or community representatives will not be possible. Other forms of communication should be used; posters, pamphlets, radio, text message, electronic meetings. The means used should consider the ability of different members of the community to access them, to make sure that communication reaches these groups;
c. The community should be made aware of procedures put in place at site to address issues related to COVID-19. This should include all measures being implemented to limit or prohibit contact between workers and the community. These need to be communicated clearly, as some measures will have financial implications for the community (e.g. if workers are paying for lodging or using local facilities). The community should be made aware of the procedure for entry/exit to the site, the training being given to workers and the procedure that will be followed by the project if a worker becomes sick; and
d. If project representatives, contractors or workers are interacting with the community, they should practice social distancing and follow other COVID-19 guidance issued by relevant authorities, both national and international (e.g. WHO).

Emergency powers and legislation

Many Borrowers are enacting emergency legislation. The scope of such legislation, and the way it interacts with other legal requirements, will vary from country to country. Such legislation can cover a range of issues, for example:

a. Declaring a public health emergency;
b. Authorizing the use of police or military in certain activities (e.g. enforcing curfews or restrictions on movement);

c. Ordering certain categories of employees to work longer hours, not to take holiday or not to leave their job (e.g. health workers); and
d. Ordering non-essential workers to stay at home, for reduced pay or compulsory holiday

Except in exceptional circumstances (after referral to the World Bank's Operations Environmental and Social Review Committee (OESRC)), projects will need to follow emergency legislation to the extent that these are mandatory or advisable. It is important that the Borrower understands how mandatory requirements of the legislation will impact the project. Teams should require Borrowers (and in turn, Borrowers should request Contractors) to consider how the emergency legislation will impact the obligations of the Borrower set out in the legal agreement and the obligations set out in the construction contracts. Where the legislation requires a material departure from existing contractual obligations, this should be documented, setting out the relevant provisions.

10.7 ANNEX 7: HEALTH AND SAFETY MANAGEMENT PLAN AND CODE OF CONDUCT FOR CONSTRUCTION WORKERS – CIVIL WORKS

Part 1: Health and Safety Management

MANAGING RISKS WITH CONSTRUCTION WORK

The first step in risk management is to identify the hazards associated with construction work. Examples of hazards include:

a. collapse of trenches
b. falling objects, for example tools, debris and equipment
c. hazardous manual tasks
d. structural collapse
e. the construction workplace itself, including its location, layout, condition and accessibility
f. the interface with other works or trade activities
g. the physical working environment, for example the potential for immersion or engulfment, slips, trips and falls, people being struck by moving plant, exposure to noise, heat, cold, vibration, radiation (including solar UV radiation),
h. the use of ladders, incorrectly erected equipment, unguarded holes, penetrations and voids, unguarded excavations, trenches, shafts and lift wells, unstable structures
i. COVID and other infectious disease risks that may be present in the host community.

SAFE WORK METHOD STATEMENTS (SWMS)

All persons involved in construction work must develop and implement arrangements to ensure the work is carried out. This necessitates a SWMS, which is a written document that details high risk construction work activities to be undertaken, hazards or risks arising from those activities and measures to control the risks. All workers who will be involved in substantial risk construction work must be provided with information and instruction so they:

a. know what to do if the work is not being conducted in accordance with the Safe Work Method Statements (SWMS).
b. understand and implement the risk controls in a SWMS
c. understand the hazards and risks arising from the work

This information and instruction may be provided during general construction induction training, workplace-specific training or during a toolbox talk by the principal contractor, contractor or subcontractor.

OCCUPATIONAL HEALTH SAFETY (OHS) MANAGEMENT PLANS FOR CONSTRUCTION PROJECTS

An OHS management plan is a written plan that sets out the arrangements for managing some site health and safety matters. The intention of an OHS management plan is to ensure the required processes are in place to manage the risks associated with a complex construction project, as there are usually many contractors and subcontractors involved and circumstances can change quickly from day to day. An OHS management plan must be in writing and must be prepared by the principal contractor before a project commences. It should be easily understood by workers (including contractors and subcontractors). It may not be necessary to communicate the entire OHS management plan to all workers; however, they must be made aware of the parts that are applicable to the work they are carrying out. The OHS Management Plan must contain:

a. arrangements for consultation, cooperation and coordination
b. arrangements for managing incidents
c. arrangements to collect and assess, monitor and review SWMS.
d. names of persons at the workplace whose positions or roles involve specific health and safety responsibilities, for example site supervisors, project managers, first aid officers

e. site-specific health and safety rules and how people will be informed of the rules

While OHS management plan is required for every construction project, a principal contractor may prepare a generic OHS management plan that applies to several construction projects, if the arrangements to manage work health and safety are the same for each construction project. However, the principal contractor must review and revise the plan to ensure it addresses the risks of the actual workplace.

INFORMATION, TRAINING, INSTRUCTION AND SUPERVISION

All contractors and subcontractors must provide relevant information, training, instruction and supervision to protect all persons from risks to their health and safety arising from construction work carried out. In addition, workers should be sensitized of potential OHS risks (including in COVID-19) and worker rights associated with these risks.

A range of activities can assist in ensuring people have the necessary knowledge and skills to complete the work safely, including general construction induction training and other training that may be specific to the workplace or the task the person is performing. Information that might be provided includes workplace health and safety arrangements and procedures, such as for emergency evacuations. Information can be provided in various forms, including written formats or verbally, for example during workplace-specific training, pre-start meetings or toolbox talks. General construction induction training provides basic knowledge of construction work, the work health and safety laws that apply, common hazards likely to be encountered in construction work, and how the associated risks can be controlled. Any person who is to carry out construction work must successfully complete general construction induction training, for example project managers and engineers, foreman, supervisors, surveyors, and labourers.

GENERAL WORKPLACE MANAGEMENT ARRANGEMENTS

The principal contractor must put in place arrangements for ensuring compliance with the following duties:

- providing a safe working environment
- Zero tolerance to Child Labour
- providing and maintaining adequate and accessible facilities
- providing first aid
- preparing, maintaining and implementing emergency plans
- providing workers with PPE, if PPE is to be used to minimise a risk to health and safety
- managing risks associated with airborne contaminants
- storage of flammable and combustible substances, and
- managing risks associated with excavation works.

The principal contractors may put in place arrangements for ensuring compliance with the above requirements through contractual arrangements, but they cannot rely only on these arrangements to ensure compliance. The principal contractor may also coordinate with other subcontractors, and check compliance whenever the principal contractor attends the construction site.

Part II: Code of Conduct for Contractors

Introduction

This code of conduct provides guidance to contractors who will undertake civil works associated with this project, water supply reservoirs/dams, access roads, etc.

Construction work will be carried out in connection with construction, refurbishment, of a structure.

Construction workers must always:

- take reasonable care for their own health and safety
- take reasonable care that their acts or omissions do not adversely affect the health and safety of other persons, and
- comply with any reasonable instruction and cooperate with any reasonable policy or procedure relating to health and safety at the workplace.

This Code should also accommodate provisions for grievance redress for workers in case of any complaint from direct or indirect workers.

Guidance note: *This Code conforms to World Bank's ESS2 and aims to address any other sub-project and project-specific social aspects. It also should be used in conjunction with a robust Labor Management Plan (LMP).*

Just like ESS2, the Code applies to project workers including fulltime, part-time/ temporary workers as follows:

- Direct workers (refer to paragraphs 9 to 30 of ESS2).
- Contracted workers (refer to paragraphs 9 to 33 of ESS2)
- Community workers (refer to paragraphs 34 to 38 of ESS2)
- Primary supply workers (refer to paragraph 39 to 42 of ESS 2)

Note: ESS2 will not apply to such government civil servants, except for the provisions of paragraphs 17 to 20 (Protecting the Work Force) and paragraphs 24 to 30 (Occupational Health and Safety).

Each employee including trainee or volunteer of a **Contractor** who interact with the project must sign this "Code of Conduct." In this Code, "Contractor" shall mean and apply to the contractor, its employees, sub-contractor, officers, agents, representative or those contracted through the Contractor to perform services authorized by the contract.

The contractor agrees to adhere to this Code of Conduct when providing services to this project. The Code of Conduct is in addition to all other contract requirements, policies, rules and regulations governing delivery of services. The purpose of the code is to protect vulnerable people from abuse, neglect, maltreatment and exploitation. It clarifies expectation of conduct of the parties and their employees, which includes administrative staff, care staff, support services staff and any others when interacting with the project.

Equally important to realize is that this Code also protects any person under the age of 18 years and any person 18 years of age or older who is physically or mentally **handicapped or impaired** due of mental illness, mental deficiency, physical illness or disability, or other temporary or permanent cause, to the extent that he is unable to care for his own personal safety.

Abuse shall include the following, but is not limited to:

a. Harm or threatened harm, meaning damage or threatened damage to physical or emotional health and welfare of any person.
b. Unlawful confinement.
c. Deprivation of life-sustaining treatment.
d. Physical injury including, but not limited to, any contusion of the skin, laceration, malnutrition, burn, fracture of any bone, subdural hematoma, injury to any internal organ, any injury causing bleeding, or any physical condition which imperils a person's health or welfare.
e. Any type of physical hitting or corporal punishment inflicted in any manner upon the body.

Sexual misdemeanor will include, but not be limited to:

a. Engaging in exploitive or manipulative sexual intercourse with any person. There will be zero tolerance to sexual misdemeanour including rape, defilement of minors/ sexual child abuse, sexual harassment and elopement.
b. Taking indecent liberties with a person, or causing an individual to take indecent liberties with a person, with the intent to arouse or gratify sexual desire of any person.
c. Employing, using, persuading, inducing, enticing, or coercing a person to pose in the nude.
d. Employing, using, persuading, inducing, enticing or coercing a person to engage in any sexual or simulated sexual conduct for the purpose of photographing, filming, recording, or displaying in any way the sexual or simulated sexual conduct. This includes displaying, distributing, possessing for the

purpose of distribution, or selling material depicting nudity, or engaging in sexual or simulated sexual conduct.

e. Use of profanities and obscene language in communities or when instructing others.

Neglect may include but is not limited to:

a. Denial of sufficient nutrition to any person.
b. Denial of sufficient sleep to any person.
c. Denial of sufficient protective gear to any person.
d. Failure to provide adequate supervision; leading to drug use in workplaces, accidents and impairment of employees.
e. Failure to arrange for medical care and/or medical treatment for any person in an emergency.
f. Failure to drive courteously at all times, leading to accidents.
g. Failure to avoid damage to public property.
h. Neglecting public and employee complaints.

Drug abuse may include but is not limited to:

a. Smoke in public or smoking in undesignated areas
b. Consumption of alcohol while on duty/at work
c. Use and trading in narcotics

Illegal trade activities without necessary licenses:

a. Trade in protected fauna or flora species
b. Trade in ivory or similar regulated wildlife products including game meat
c. Trade in processed, semi-processed minerals and their ores

Financial exploitation will include, but is not limited to:

Utilizing labor of without paying for it, or at a non-commensurate financial rate/ wage.

Mistreatment will include, but is not limited to:

a. Physical exercises, such as running laps or performing pushups,
b. Unauthorized chemical, mechanical or physical restraints except,
c. Assignment of unduly physically strenuous or harsh work.
d. Failure to behave in a polite and courteous manner to the general public
e. Requiring or forcing the individual to take an uncomfortable position, such as squatting or bending, or forcing people to repeat physical movements when used solely as a means of punishment.
f. Group punishments for misbehavior of individuals except in accordance with the written policy.
g. Verbal abuse: engaging in language whose intent or result is demeaning
h. Denial of any essential service solely for disciplinary purposes
i. Denial of visiting or communication privileges with family or significant others
j. Requiring the individual to remain silent for long periods of time solely for the purpose of punishment.

Contractor agrees to document and report abuse, sexual abuse and sexual exploitation, neglect, maltreatment and exploitation as outlined in this Code and cooperate fully in any resulting investigation. Contractor shall prominently display a poster, notifying contractor employees of their responsibilities and to report violations and giving appropriate phone numbers.

Contractor/ Employee/ Volunteer/ subcontractor

Signed: ……. Date (dd/mm/yyyy):

Name: …….

10.8 ANNEX 8: COVID-19 MANAGEMENT AND MONITORING PLAN

Table 10-8: COVID-19 Management and Monitoring

Potential Impacts and Risks	Mitigation Measures	Implementation tool	Expected result	Monitoring indicators	Responsibility
COVID-19 Spread and Infections	Develop COVID-19 SOPs as part of PIM.	Community Farmers/ and Schools Awareness Trainings and sensitizations.	Implementation of SOPs.	Number of cases of COVID-19 infection cases under the project	MAAIF, MoH, DLGs
	Observance of social distance as guided by MoH, non-shaking of hands, regular use of hand-sanitizers and washing hands with soap, wearing of face masks while in public, use of temperature guns to screen project participants during project events that bring participants together, reporting protocol of any likely infection of persons, regular training of communities and leaders on COVID-19 control measures	Workshops, Meetings, Trainings, IEC.	Implementation of SOPs and avoidance of COVID-19 infections spread.	Number of farmers trained, Training records, Number of cases of COVID-19 infection cases under the project.	MAAIF, MoH, DLGs
	Provision of appropriate Personal Protective Equipment (PPE) to all project workers and visitors (Nose Masks, Sanitizer, Hand-Wash Facilities and soap.	Workshops, Meetings, Trainings, IEC.	Implementation of SOPs and avoidance of COVID-19 infections spread.	No. of COVID-19 PPE provided and hand-washing facilities.	MAAIF, MoH, DLGs
	Undertake rapid testing of workers for covid-19 on medical advice.	Health Impact Monitoring	Implementation of SOPs and avoidance of COVID-19 infections spread.	No. of COVID-19 Tests undertaken by the project.	MAAIF, MoH, DLGs.

GUIDING QUESTIONS FOR COVID-19 RISK CONSIDERATIONS		
GUIDING QUESTIONS	**PROVIDE INFORMATION**	**POSSIBLE MITIGATION MEASURES**
1. DISCRIMINATION AND SOCIAL INCLUSION		
Will the project affect or benefit different groups or individuals who are vulnerable or disadvantaged? Have they been identified?	The project benefits women and children that are affected by the problem of malnutrition as identified in the original project.	Provision of MNR inputs and nutrition commodities.
Will the needs of the groups or individuals who have been identified as vulnerable or disadvantaged be considered specifically?	The project specifically considers and deals with the needs of those affected by malnutrition through the promotion of MNR crops, nutrition education and access to nutrition commodities and community-based nutrition services.	N/A
Will it be possible to take differentiated measures to reduce the adverse impacts on vulnerable or disadvantaged persons or groups?	This project will not have adverse impacts on vulnerable or disadvantaged persons or groups.	This project takes measures to provide benefits to women and children through project inputs, nutrition services, and training.
Will it be possible to take differentiated measures to facilitate access of the identified vulnerable or disadvantaged persons or groups to the benefits of the project?	These groups will access MNR inputs, nutrition commodities such as IFA, deworming tablets among others through existing criteria.	Interventions such as MNR inputs, nutrition education and nutrition commodities will be implemented.
Has the role of women been considered in project design and implementation?	The project works with 60% women in implementation of its activities including pregnant and lactating mothers and school going girls of teen years.	Women are encouraged to participate in project activities including nutrition forum and parent groups meeting among others.
Does the project have positive or adverse impacts on Indigenous Peoples, and if so, does it consider issues relating to them, including any specific requirements on design and access to benefits and consultations? Does the project set out a process for free, prior and informed consultation, leading to their broad community support?	The project doesn't have any positive or adverse impacts on Indigenous People. The project benefits community members. They are provided with agricultural inputs and nutrition commodities, in addition to nutrition education.	N/A
2. LABOR[29]		

[29] Please note that all references to 'project workers' and 'workers' refer to staff employed by UCSATP implementing agency.

Are the national labor requirements on terms and conditions of work adequate to protect workers?	The national labor requirements are adequate and protect workers in the demonstration gardens both at school and community levels.	A strong ESMF has been designed and implemented to ensure worker protections.
Will national requirements protect all types of workers or are some excluded? If so, which ones?	All workers are equally protected. These requirements are complemented by World Bank safeguard policies.	All workers hired or to be hired under the project will operate under the provisions of the relevant national law with any additional measures relating to code of conduct, use of child and forced labor, health & safety measures and maintaining a GRM being detailed in the ESMF.
Are the national requirements on worker health and safety adequate, including for those workers that are vulnerable? Do they address COVID-19 issues?	National requirements on health and safety for workers are adequate. The national SOPs for the management and prevention of COVID-19 adequately address the workers' health and safety.	N/A
If national requirements are not adequate to address COVID-19 issues, will the project include specific requirements?	N/A	N/A
Is there a risk of child labor or forced labor, including trafficked labor?	There is minimal risk of child labor or forced labor. The implementation arrangements are against child labor and this is always checked from time to time through supportive. supervision activities.	The project will continue to ensure that there is no child labor and any incidents reported to the GRM are handled appropriately.
Will workers be able to raise workplace concerns through a grievance mechanism and will they be addressed effectively?	Workers can raise workplace concerns through the GRM committees formed at all levels of implementation.	Provision of log books are there at all levels (districts, schools and community) for registering their concerns
Have workers been trained on acceptable behavioral requirements including application of a code of conduct, with other workers and in relation to nearby communities? If so, what requirements are being included in the project.	There have been trainings and refresher trainings in regards to acceptable behavior and code of conduct. The project is being periodically provides refreshers training.	N/A
3. MEANINGFUL CONSULTATIONS AND PARTICIPATION		
Will there be timely disclosure of information at an appropriate level of detail and in accessible locations?	The project has mechanisms of disclosure of information through the sectoral communication offices, regular radio and tv programmes.	Regular media programs will be organized.
Will affected communities be consulted regarding the design and implementation of the	N/A	N/A.

activities, and their responses considered in a meaningful way?		
Will other stakeholders be consulted, and their responses considered in a meaningful way?	There will be consultative meetings for all stakeholders in a multisectoral approach. Their responses will be considered during implementation.	Regular engagements with the stakeholders.
Will the project implement targeted measures to enable the identified vulnerable or disadvantaged persons or groups to input into the stakeholder engagement process?	N/A	N/A
Are there requirements that address the safety of communities, in particular COVID-19-related considerations? Have these been discussed with the communities?	The country SOPs for the prevention and management of COVID-19 applicable to the implementation of the project, have been widely disseminated to the communities.	Continued observance for compliance of country SOPs for prevention and management of COVID-19, through project M&E and supervision.
What measures will the project implement to consider and incorporate the views of all stakeholders into project design and implementation? Specify mode of consultations and frequency.	There will be consultative and orientation meetings through which stakeholders' views will be received. These will be incorporated into the. implementation arrangements.	Stakeholder consultative meetings will be held across the implementing areas.
Does the project have adequate measures to conduct monitoring of project implementation, including the use of third party monitors where appropriate, especially in emergency situations?	The project has robust data collection processes and project management structures in place to monitor project implementation. The project uses a Geo-enabled technology that helps to collect real-time data and is able to facilitate third party monitoring.	Continued use of the geo-enabled M&E technology.
4. SEXUAL EXPLOITATION AND ABUSE/SEXUAL HARASSMENT (SEA/SH)		
Will the project increase the risk of SEA/SH?	The project is not expected to directly increase the risk of SEA/SH. However, extra precaution will be taken to mitigate any risk of SEA/SH through sensitization and stakeholder engagement about SEA/SH.	N/A
Does the project have a clear statement on Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) of any worker, women, girls, men or boys? Has this been communicated effectively?	No	

Are there responsive and effective grievance processes available to communities and workers, in relation to SEA/SH?	There are GRM committees at the different levels of implementation. These facilitate the process of reporting the grievances and get redress.	Continued monitoring of the redress process to make sure that any grievance registered is concluded with appropriate resolution.
Are all project grievance mechanisms designed to reflect gender issues and sensitivities?	The GRM handles gender related issues.	
Have GBV service providers been identified to effectively respond in case of incidents of SEA/SH?	No	N/A
5. EXPOSURE TO COVID-19		
Will the project introduce risk of exposure to different types of diseases, including COVID-19?	The project introduces minimal increased risk of exposure to COVID-19 through its interventions, e.g. monthly nutrition forum, etc.	Continued observance of COVID-19 SOPs as guided by the Government of Uganda.
Has the risk of exposure to COVID-19 been adequately assessed?	The COVID-19 situation is assessed following the Government procedures.	The project will continue providing information following Government's COVID related SOPs.
Does the project include reasonable measures to minimize the risk of COVID-19?	The project provides measures to minimize the risk of COVID-19 following the Government SOPs including social distancing, wearing masks, washing/sanitizing hands regularly, and using PPE (when/if necessary) among others.	The project will continue the good practices for protecting COVID and providing information following Government SOPs.
Does the project include measures to assist workers where they get sick, including providing support to local health facilities where relevant?	The project disseminates information on prevention and management of COVID-19 as per the Government guidelines.	The project will continue providing information following Government SOPs.
Does the project include measures to mitigate risks arising in connection with addressing COVID-19, for example waste management, data protection?	No.	N/A
TRAFFIC AND ROAD SAFETY		
Will the project create traffic and road safety risks that will adversely affect the safety of communities and workers?	No	N/A
Will project activities be conducted on public roads, including movement of workers and equipment?	No	N/A
Will the design and implementation of project activities consider traffic and road safety risks?	No	N/A

Would the traffic and road safety risks in the project be better understood through a road safety assessment?	No	N/A
Will monitoring and reporting include traffic accidents and incidents?	No	N/A
8. Grievance Mechanism		
Does the project include responsive and effective grievance processes available to communities and workers?	The project has established grievance redress mechanism committees at the different levels of implementation.	The project team will continue monitoring the grievance processes to have all registered grievances settled timely.
If not, will the project develop effective grievance mechanisms?	N/A	N/A
Will the grievance mechanisms consider the specific needs of different groups, including those that are vulnerable or disadvantaged?	The GRM considers grievances from all stakeholders on issues caused by the project interventions.	
Will the project have a process in place for actively monitoring, responding to and resolving grievances?	The project has GRM committees. It has logbooks where the grievances are registered. The committees handle the grievances and report on how they have been resolved. The project team through their established supervision system monitors the progress of resolving the grievances.	The project team will continue monitoring the grievance processes to have all registered grievances settled in a timely manner.
9. IMPACTS ON INCOMES AND LIVELIHOODS		
Does the project design include temporary or permanent measures addressing COVID-19 issues (including implementation of emergency legislation and WHO guidance etc.) that may require land acquisition, and / or economic or physical displacement?	No	N/A

10.9 ANNEX 9: CHANCE FINDS PROCEDURE

A Chance Finds Procedure to guide management of any accidental discoveries of histo-cultural resources in the process of implementing the RRF. The procedure will be as follows:

a. Stop the construction activities in the area of the chance find;
b. Delineate the discovered site or area;
c. Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities and the Directorate of Museums and Monuments take-over;
d. Notify the supervisory Engineer who in turn will notify the responsible local authorities and the Directorate of Museums and Monuments under the Ministry of Tourism, Wildlife and Antiquities (within 24-48 hrs or less);
e. The Directorate of Museums and Monuments would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archaeologists of the Directorate of Museums and Monuments (within 24 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
f. Decisions on how to handle the finding shall be taken by the Directorate of Museums and Monuments. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage;
g. Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the Directorate of Museums and Monuments; and
h. Construction work could resume only after permission is given from the responsible local authorities and the Directorate of Museums and Monuments concerning safeguard of the heritage;
i. These procedures must be referred to as standard provisions in construction contracts, when applicable. During project supervision, the Site Engineer shall monitor the above regulations relating to the treatment of any chance find encountered are observed;
j. Construction work will resume only after authorization is given by the responsible local authorities and the National Museum concerning the safeguard of the heritage; and
k. Relevant findings will be recorded in World Bank Implementation Supervision Reports (ISRs), and Implementation Completion Reports (ICRs) will assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.

10.10 ANNEX 10: GENDER BASED VIOLENCE ACTION PLAN

Name of project: Uganda Climate Smart Agricultural Transformation Project ((P173296)
Focus: Gender Action Plan-GAP
Level of Risk Identified through Risk Assessment: Substantial
Level of Risk Based on Contextual Analysis/Expertise: Substantial

Introduction

Uganda is one of the most vulnerable and least adapted countries to climate change with an agriculture sector that is heavily reliant on rain-water and traditional farming practices. The worsening climate variability, coupled with extreme weather events such as droughts, floods, mudslides, soil erosion and degradation, will continue to wreak havoc on agricultural productivity at an increasing rate, resulting in low food productivity and consequently inflated food prices, thereby worsening the already dire food security situation. It is predicted that Uganda will continue to experience rising temperatures, which will increase by more than 2^{o}C by 2030. The resultant growing variability of inter-annual rainfall is projected to continue with an increasing pattern of off-season rainfall as well increasing frequency and intensity of extreme events such as droughts, floods, and landslides, all of which will contribute to worsening land degradation and low agricultural productivity. The combined effect of these severe weather conditions will detrimentally impact household incomes, further impairing the capacity and readiness of local farmer to cope with the ravages of climate change, and thereby becoming a vicious cycle of low agricultural productivity and poverty.

To boost agricultural productivity and household incomes as twin remedies against both the problem of climate change and poverty, there is an urgent need to adopt appropriate climate smart management practices and shift the way land, water, soil, animal, fish and plant resources are managed to build resilience to climatic shocks and sustainably increase productivity and incomes in the most efficient, effective, and equitable manner. Combining climate smart practices with investments in promoting market access, will help drive productivity and incomes while also limiting agricultural emissions and enhancing resilience to climate-related risks and shocks. This shift requires substantial investments in promoting the uptake of existing Technologies, Innovations and Management Practices (TIMPs) for select value chains; promoting the multiplication and/or replication of TIMPs at the user level to address potential supply constraints; promoting alternative sources of livelihoods; facilitating linkages with private sector actors; enhancing access and uptake of climate smart technologies; and addressing market and information disparities as well as coordinating across institutional gaps that may exist.

Across the country, there are glaring regional imbalances with the Northern and Eastern regions markedly lagging behind as a result of historical, environmental and socio-cultural factors, including insurgency, cattle wrestling, severe and fluctuating weather conditions (often involving draught and floods), overgrazing, poor land use and farming practices and the recent invasion of the area by the deadly desert locusts. The invasion aggravated the already severe environmental conditions, socio-cultural and historical ordeals, and the recurrently low agricultural productivity, further worsening the problem of food security and low household incomes across these regions. The combined weight of these factors – and the resultant poverty –effectively impedes the uptake of the existing TIMPs by farmers. Selected social indicators such as household-based agricultural activities, resilience, food security, household economy, livelihoods and welfare, household nutrition and health, access to agricultural inputs, technology, extension services, access to information, and level of commercialization, all show that the Northern and Eastern regions have remained well below the

national average on food security and household incomes. Notably, the impact of poverty and the poor uptake of TIMPS are felt differently by the various social groups across the regions, with women, vulnerable groups and people with disability bearing food security and the resultant poverty disproportionately.

Thus, the proposed Uganda Climate Smart Agricultural Transformation Project (UCSATP) seeks to ensure protection and prevention of crop and vegetation loss; prevention of famine and hunger; promotion of improved crop yields, improved nutrition, environmental protection, as well as the creation of direct or indirect job opportunities; improvement of health conditions; creation of awareness and access to information; and equitable and gender-sensitive uplifting of livelihoods and the economic condition across the regions. The proposed project further seeks to address the primary drivers of poverty in the Northern and Eastern regions, which have been plagued by low productivity from engaging in low-value economic activities, making communities more vulnerable to climate change shocks. These shocks have further exacerbated gender disparities in agriculture with women farmers, who tend to be more dependent on natural resources with fewer endowments and entitlements to help them absorb shocks, being disproportionately more exposed to climate change risks compared to men. The project will thus support investments in technology and market-driven productivity increases in climate smart value chains. These investments will contribute to reversing the effects of climate change, thereby sustainably increasing agricultural productivity and household incomes while enhancing resilience to climatic shocks.

Previous initiatives to mitigate severe climatic hazards like recurring drought, flooding, landslides, unpredictable seasonal variations, desert locust invasions, and the Covid-19 pandemic have shown that livelihoods support to the poorest and most vulnerable groups can protect households from shocks and help them avoid selling critical assets or taking children out of school in order to survive. Evidence from NUSAF 3, for instance, showed that livelihoods support interventions increased resilience of households, food consumption and reduced negative coping strategies. The midline impact evaluation showed that one meal a day reduced from 43.5% to 11.2%, two meals a day increased from 42.1% to 55.5%, and three meals a day grew to 32% from 3%. The midline impact evaluation report showed further that livelihoods support programmes resulted in increased expenditures on school fees, health care and food consumption. 64% of beneficiaries were able to fully pay for education medical services and food, compared to 43.7 at baseline, indicating significant improvement in livelihoods.[30] Without livelihoods support and interventions, vulnerable households continue to fall further into poverty and thus stop making longer term investments to improve their livelihoods and transform their lives.

Contextual GBV/SEA/SH Risks

The GBV impacts and risks from the proposed Uganda Climate Smart Agricultural Transformation Project (UCSATP) are part of the broader social impacts and risks that are expected to emanate mainly from the project activities which will, respectively, entail: (i) labor intensive work; (ii) upgrade or refurbishment of existing agro-processing machinery, construction of agro-processing related infrastructures (e.g., stores, plants, houses, etc.); and (iii) rehabilitation of climate stations/installation of automated weather station across the country. The implementation of the project activities and interventions above will entail both

[30]Midline Impact Evaluation, NUSAF 3, December 2019.

subtle and obvious gendered risks and impacts that will call for a gender sensitive approach and enactments of carefully tailored mitigation measures to tackle the following factors:

- Labor intensive project works, which will result in the Influx of labor into project areas, especially where such works require more than community members, e.g., civil works activities which will come with associated gendered risks such as social conflict, spread of communicable diseases, GBV/SEA, labour issues, disparities, etc.);
- most labor intensive works usually tend to predominantly involve male workers who are typically separated from their families, spending more time at work sites for extended periods. If not carefully managed, an influx of labor can negatively impact project areas, spreading social ills such as sexual exploitation of women and girls, increase of GBV, spread of communicable diseases, escalation of family separation, etc.
- Social exclusion from, or inequitable or restricted access to, project benefits and other climate smart interventions and services, based on gender, gender identity, sexual orientation, disability, age, literacy/numeracy, and other vulnerabilities, which will have the potential to worsen the gap between male and female beneficiaries;
- Entrenched patriarchal ideologies and practices and attendant experiences such as limited mobility and confinement to domestic and farm chores and spaces, will have the potential to limit participation of women in project activities, hence curtailing their opportunity to benefit from the project;
- Patriarchal nature of most of the communities in the project areas where land is culturally owned by men may pose a danger for women and limit their participation and uptake of TIMPS, which may impede women's socioeconomic uplift and increase social conflicts, including GBV as women try to seek available project opportunities;
- Sexual exploitation of junior workers by supervisors and other more privileged seniors;
- Sexual violence and abuse of vulnerable categories (young girls, PWDs and women);
- Improvement in people's socioeconomic status and associated increase in disposable incomes may bring along with them social ills such as alcohol and drugs (including tobacco which is widely grown and consumed);
- Limited access to information due to social and institutional factors such as gender, disability, vulnerabilities, immobility, illiteracy, language barrier, poor documentation, socio-economic status, etc. which often affects women disproportionately more severely than men;
- Inadequate engagement of the various stakeholders, especially women and other vulnerable groups, and ensuring their representation in processes such as grievance redress mechanism;
- The gender implications of restricted access to some ecosystem services for members that have been benefiting from forests located in the project area that are usually relied upon for firewood, building, medicine or fruits;
- Severe climatic hazards like recurring drought, flooding, landslides, unpredictable seasonal variations, desert locust invasions, and the Covid-19 pandemic have shown that livelihoods support to the poorest and most vulnerable groups can protect households from shocks and help them avoid selling critical assets or taking children out of school in order to survive.

The project risks, impacts and factors above may worsen existing gender disparities and attendant social tensions unless carefully tailored mitigation measures are adopted and implemented. Such interventions are more urgent for most regions of the country where climate change, coupled with related environmental and socio-cultural factors, often exacerbate gender disparities in the agricultural sector, with women farmers being disproportionately vulnerable and more prone to climate change

risks than men. The disadvantage that women face results from their greater dependency on natural resources with fewer endowments and entitlements to help them absorb shocks.

Appropriate interventions and mitigation measures will be taken to ensure that PAPs benefit equitably from the proposed UCSATP. Without those measures, a number of the proposed project activities and interventions have the potential to exacerbate existing social conflicts, inequalities, risks or vulnerabilities, which may result from conditions such inequitable access to project benefits arising from factors such as gender, disability, age, sexual orientation, gender identity, literacy/numeracy, and other vulnerabilities. Project activities and interventions, if not carefully mitigated, are bound to worsen existing structures of injustice and inequality. This reality is especially true across most regions of the country where climate change, coupled with related detrimental environmental and sociocultural factors, will continue to exacerbate social and gender disparities in the agricultural sector, with women farmers being disproportionately more prone to climate change risks compared to their male counterparts, due to their relatively greater dependence on natural resources, which often leave women with fewer endowments and access to benefits, opportunities and entitlements to help them absorb climate shocks. Project implementers should endeavor to guard against unintended project impacts. Rapid social change and increase in people's socioeconomic status, as direct impacts of the project, are bound to threaten the status quo, in real or perceived ways, which may potentially exacerbate GBV/SEA.

In Uganda Gender-Based Violence (GBV) is highly prevalent, with 46% of women aged 15-49 having experienced physical, sexual or emotional violence. There is a high tolerance and wide acceptance of GBV in the country, with 49% of women and 41% of men believing that it is justified for a man to beat his wife (DHS, 2016). GBV in all its manifestations (physical, sexual, emotional, psychological, and cultural practices such as Female Genital Mutilation (FGM) remain critical in the fields of human rights, public health and economic development (MGLSD, 2016). GBV is multidirectional, involving perpetration of cruelty against men, women, boys and girls. The vast majority of cases reported, however, involve victimization of women and girls. Existence of GBV involves violation of individuals' rights, slowing down the progress in achieving sustainable inclusive human development. In Uganda GBV is deeply entrenched, with social beliefs, patriarchal ideology, perceptions, and attitudes about women and men, boys and girls and their roles in society exacerbating the already fragile categories (DFID, 2016).

Available evidence shows that the leading causes of GBV are poverty; alcoholism in both women and men; cultural practices, like early marriages; bride price; limited counselling; peer pressure; and drug abuse; among others (UNDP, 2015; OXFAM, 2018; UBOS, 2019). In the context of UCSATP, the influx of people with disposable cash in project areas will likely lure many women and girls who are likely to fall victim to GBV/SEA/SH. The other undesirable outcome may be an increase in social conflicts and broken marriages as well as increased number of unplanned pregnancies and unwanted children. There is therefore an urgent need to put in place a GBV/SEA/SH prevention and response action plan to mitigate some of these undesirable impacts.

The North and Eastern regions of the country were recently affected by desert locust invasion. The regions had for over two decades between the late 1980's to the mid-2005 also been struck by cattle rustling, political insurgencies and unarrest, rural urban migration, internal displacements of people, and homelessness, among other, all of which had drastic impacts on agricultural productivity and impoverished households. The increased displacements and vulnerabilities had even greater detrimental

impacts for girls, women, people with disability and other vulnerable groups, leading to widespread social ills including GBV/SEA/SH. which the region is still struggling to get out of (UNFPA, 2018)[31].

GBV/SEA/SH is even more prevalent in the context of illiteracy and among disempowered groups. The North-Eastern region of Karamoja is particularly plagued by the problem of illiteracy, with over 70%, of children aged 10+, a majority of whom are girls, never having been to school. The overall literacy rate for Karamoja stands at only 25%, compared to 94% in Kampala, while 60% of women are unable to read and write. A related driver of GBV/SEA/SH is polygamy, which is a common practice in the region. There are also degrading cultural practices such as forcefully wrestling girls down (that includes forced sex) as part of 'courtship', as well as forced and early marriage of girls, all of which are among the driving forces behind the vice. Further, Northern and Eastern regions both experience the problem of low School enrollment and retention for girls resulting from several factors such as teenage pregnancy, child marriage, heavy domestic chores, lack of money for school fees leading to boys being prioritized, long distances to schools, lack of sanitation facilities and supplies among other factors (Ministry of Education and Sports 2016). Women are also looked at as chattel and secondary citizens, mainly because of the culture of payment of bride wealth.

It is therefore essential for the project implementers to take mitigation measures against the drivers of GBV/SEA/SH, including the influx of labor, the high prevalence of poverty, harmful cultural practices and norms, polygamy, high illiteracy levels, violence against women and girls in the context of post conflict reconstruction in Northern Uganda and parts of Teso, and the historically disadvantaged Karamoja region. If not mitigated and well managed, these factors can lead to further marginalization and abuse of women, girls and children who are already vulnerable.

Definition of GBV/SEA/SH

The Inter-Agency Standing Committee (IASC)[32] defines gender-based violence as "an umbrella term for any harmful act that is perpetrated against a person's will, and that is based on socially ascribed (gender) differences between males and females. GBV broadly encompasses physical, sexual, economic, psychological/emotional abuse/violence including threats and coercion, and harmful practices occurring between individuals, within families and in the community at large. These include sexual violence, domestic or intimate-partner violence, trafficking, forced and/or early marriage, and other traditional practices that cause harm.

The United Nations[33] defines "**sexual exploitation**" as any actual or attempted abuse of a position of vulnerability, differential power, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. Sexual abuse on the other hand is "the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions." SEA is therefore a form of gender-based violence and generally refers

[31] Evaluation of UNFPA Support to the Prevention, Response to and Elimination of Gender – Based Violence and Harmful Practices 2012 – 2017)

[32] Inter-Agency Standing Committee is the primary mechanism for inter-agency coordination of humanitarian assistance among UN and non-UN humanitarian partners.

[33] Secretary-General's Bulletin on "Special Measures for Protection from Sexual Exploitation and Sexual Abuse" (ST/SGC/2003/13)

to acts perpetrated against beneficiaries of a project by staff, contractors, consultants, workers and partners.

Sexual harassment occurs between personnel/staff and involves any unwelcome sexual advance or unwanted verbal or physical conduct of a sexual nature.

Implementation of the Action Plan

This action plan will be jointly implemented by MAAIF and the Uganda Climate Smart Agricultural Transformation Project (UCSATP), and supported by the GBV Specialist that the project plans to hire. The project will maintain strong coordination and collaboration with the MGLSD, and other government line ministries, NUSAF3 community structures, ACDP and other NGO's for a comprehensive GBV/SEA prevention and response services.

EXISTING RISK MANAGEMENT SYSTEMS /GAPS

Based on the previous experience in implementing the Bank funded projects in Uganda, MAAIF is in the process of developing several measures to ensure the protection of people and communities it works with, including mechanisms to limit, report and respond to potential cases of sexual exploitation and abuse and sexual harassment cases as outlined below:

EXISTING RISK MANAGEMENT SYSTEMS AT MAAIF/ACDP

a) MAAIF Corporate Policies on SEA/SH
b) Currently, MAAIF does not have an existing gender and equity policy guidelines for GBV SEA/SH risk management, which is still a new concept in the sector. Similarly, MAAIF Environment and Social Safeguards Policy (ESSP) as well as its Human resource policy have gender gaps which need to be addressed. This is something that MAAIF is aware of and intends to prioritise to provide gender sensitive policies that provide for protection of all workers and the communities in project areas against GBV/SEA/SH/VAC. The Ministry is committed to providing a working environment free from sexual abuse, all forms of child abuse, child labour, sexual abuse and harassment, and defilement, among others aggressions and abuses of authority at the workplace, at all level. The current practice is that several projects in the Ministry have anchored a number of GBV management strategies piecemeal, especially in the work contracts. However, MAAIF is in the process of developing a Sector Gender Strategy which will provide direction on risk assessment and management of GBV/SEA/SH and VAC and ensure that all policies are reviewed for gender sensitivity.

   MAAIF intends to make it a contractual requirement for all contractors to have in place a policy on SEA/SH/VAC for regular compliance monitoring. It also intends to make it a responsibility of all the supervision consultants and the PIU's to ensure that applicable policies on SEA/SH are put in place, monitor compliance with the policy provisions and apply penalties as provided for in the upcoming contracts to ensure full compliance by all contractors.

   MAAIF intends to make it mandatory for all contractors to ensure that all workers sign a Code of Conduct (CoC) that specifies appropriate behavioural conduct, responsibility and penalties for non-compliance with SEA/SH, among other social misconducts. MAAIF also intends to give support to contractors to develop CoCs with clauses on SEA/SH compliance and ensure that they enforce those codes. Among other conducts, the CoCs will prohibit sexual relations with minors, subordinates, vulnerable groups, and will protect these vulnerable groups against various forms of sexual harassment in the work place. Once developed, MAAIF intends to translate the CoC into local

languages and explain them to workers in languages that they understand during project implementation. Similarly, beneficiary communities will also be made aware of the CoC provisions at implementation through community sensitization. All the project implementation teams will be required to have the requisite qualifications and experience to engage women and men in a sensitive manner.

c) ***Code of Conduct and Ethics**:* MAAIF will use the Uganda Public Standing Orders, 2010 (pg. 137 G-c and Appendix F 5) that identifies sexual harassment as a misconduct that public servants should against and provides for grievance procedures for dealing with the vice. MAAIF will provide to workers and contractors of projects implemented under it a code of conduct that specifies appropriate behavioral conduct, responsibility and penalties for non-compliance with SEA/SH, among other social misconducts. It will be a requirement in the bids and conditions of the contract for potential contractors to commit to the CoC. Specific sections of the Uganda Public Standing Orders, 2010 will be adopted and translated into local languages and explained to workers and contractors in ordinary language that they understand by the relevant experienced employees of MAAIF. Communities will also be made aware of the CoC and the relevant provisions of the Uganda Public Standing Orders, 2010 provided by MAAIF during and through sensitization campaigns. The MAAIF will nominate and work through a NSP that will have the prerequisite qualifications and experience to engage women and men in a sensitive manner.

d) ***Establishment of a reporting mechanism:*** MAAIF is in the process of developing a Sector Gender Strategy which will provide direction on risk assessment and management of GBV/SEA/SH and VAC. As already noted, several projects have anchored a number of GBV management strategies piecemeal, especially in the works contracts. Thus, MAAIF intends to develop a strong SEA/SH reporting protocol that provides for timely and safe reporting of SEA/SH incidences. The protocol will be guided by a survivor-centred approach that clearly outlines professional standards and work ethics for the protection of women and children, including confidentiality, consent, safety, and also outlines the roles and responsibilities of key actors i.e. MAAIF, UCSA, supervising consultant, NSP, contractor and other government line ministries or NGO.

A dedicated Grievance Redress Mechanism (GRM) entry point/person who receives information on alleged incidence of SEA/SH must report to the NSP or UCSA supervising consultant and/or staff within 12 hours of the receipt. MAAIF intends to adopt and update referral pathways for the project area established by MGLSD and the Uganda Police protocol on incident reporting. These will be promoted and adopted by UCSATP (See attached appendix 1 &2.[34])

The **Project-specific GRM** will be developed and will consist of GBV/SEA/SH reporting channels/entry points, which include:

- Trained GMCs and Community Focal Points whose role will be to receive and refer cases appropriately to the NSP recruited by MAAIF and other GBV service providers;

[34]AppendixI & II- Are Referral pathways established and developed by MGLSD and the Police protocol on GBV incident reporting

- The Nominated Service Provider (an NGO to be hired and entrusted with the responsibility of receiving cases, providing psychosocial support and ensuring follow-up support and case management);
- At the PIU, MAAIF will recruit a GBV Specialist who will be responsible for the management of all social risks on the project, including GBV/SEA/SH. This will be the focal point/entry point for SEA/SH reporting. The GBV specialist will also be responsible for supervision of the NSP and the Resident Engineers' Social Safeguards staff. Project workers and other stakeholders, including district local governments, will be informed of the GBV specialist's role. They will all be trained to facilitate a survivor-centred approach, ensuring safe and confidential referrals and case follow-up, either from the community or from project workers. In addition, MAAIF ESHS staff, and UCSATP staff involved in GBV/SEA/SH compliance supervision and monitoring will be specially trained. MAAIF will work closely and coordinate with service providers (Community/Council, Police, Health, Psychosocial Service Provider, traditional/religious/community leaders, and Magistrate Courts) to ensure that survivors access timely services, including the project GRM for accountability according to the needs and wishes of the survivor.

MAAIF will also work with and maintain strong coordination with the MGLSD as a key partner while benefiting from their expertise as well as existing good practices and existing literature. Thus, MAAIF and MGLSD will work out a clear memorandum of understanding that will clearly define the working relationship between the two entities, roles and responsibilities. At the local government level, MAAIF will work with the Community Development Department and Probation Office to refer cases. The Department represents the MGLSD in the district and its roles have been defined in the attached referral pathways.

The GBV referral pathway will be updated by the UCSATP to facilitate access to a minimum package of services where available.

The following procedure will be undertaken using an established standardised report form in line with a survivor-centred approach according to their wishes and needs:

1. Getting the details of the Survivor of GBV/SEA/SH;
2. Documenting the details of the case;
3. Referring the Survivor to appropriate service providers for GBV/SEA related services;
4. Supporting the Survivor through the NSP to ensure access to services; and
5. Coordinating with service providers/duty bearers to ensure GBV/SEA/SH cases are appropriately handled and that survivors access appropriate services.

Besides managing the mandated institutional response mechanism as outlined in the standardized referral pathways, MAAIF has a responsibility for reporting to the World Bank as part of the reporting requirements. The NSP for GBV/SEA/SH will spearhead the coordinated responses and collection of information for immediate reporting within the mandatory 12-hour reporting timelines from time of known incident. In addition, the NSP will upon receipt of information on GBV/SEA/SH immediately refer the case to appropriate duty bearers as outlined in the support protocol/referral pathway.

e) **CSATP Livelihoods Protection and Restoration Component:** The will benchmark on NUSAF3 for better institutional experience and expertise in providing social protection through livelihood

support to the severely poor and vulnerable populations that are most susceptible to risks and impacts arising from the restoration of their livelihoods. This will be done with gender-sensitive approach. The approach will address gender inequality to ensure women's inclusion and participation in the project for equitable benefit. NUSAF 3 Mid-Term Review did show greater women's participation with 62% and 74% for components 1, 2 and 3, respectively. NUSAF3 has a component on GBV prevention and response through community mobilization and sensitization to address cultural values and practices that limit women's participation, ownership and control of productive assets. It also addresses cultural attitudes that perpetuate violence against women, incorporating into its activities appropriate social safeguard strategies. The CSATP will use a similar approach and lessons learnt from NUSAF 3 in addressing GBV/SEA/SH in its Livelihoods Protection and Restoration component.

f) **Referral Pathways:** Regarding the Code of Conduct and Ethics, NUSAF3 draws on both the Disciplinary Code, Schedule I of the Employment Act, 2006; and the Uganda Public Standing Orders 2010 (pg. 137 G-c and Appendix F 5) in all matters related to sexual harassment as a misconduct for public service employees and service providers. The proposed CSA project should partner, and work in close coordination, with MGLSD and other partner agencies like Police, MoH, and District Local Governments (DLGs) towards an effective management of GBV/SEA/SH and to facilitate access to services. MAAIF will work towards getting an MOU with MGLSD to adopt the MGLSD referral pathways which have several entry points and referrals, including the Local Council I (LC I), police, traditional/religious/community leaders, psychosocial service providers (CSOs, CBOs), Legal Aid clinics, Medical/Health facilities, and courts of law, all of which work to ensure that survivors freely and safely navigate and benefit from well-coordinated services.

   Currently, MAAIF does not have a support protocol that provides a framework of cooperation in response to GBV/SEA/SH survivors' support, incident notification and referral forms. Although it has intensions of developing these tools in the near feature, MAAIF in its current operations only adopts GBV management strategies piecemeal, especially in the works contracts. MAAIF intends to develop these further and standardize them, especially the GBV policy for managing and responding to GBV cases, and the GBV protocols, all of which will be updated by the proposed project to ease and facilitate access to a minimum package of services where available. These tools will include, the Incident Notification Form and a Monthly GBV/SEA/SH/VAC Incident Log which will be used to compile monthly or periodic GBV/SEA/SH/VAC cases. These tools/documents will continually be updated alongside the project operations. The contractors will also be encouraged to develop or adopt the CoC which all employees will be mandated to sign and abide by in regard to prevention of GBV/SEA/SH/VAC. This will be done under the monitoring and support from MAAIF. The referral pathways will also be reviewed by the NSP in consultation with other service providers to update and reflect available services in the project areas for adoption by the proposed CSATP.

g) **Grievance Redress Mechanism (GRM):** MAAIF has an established **GRM** with MIS module that provides for registration of all grievances and complaints. Thus, CSATP is going to adopt this and update it to meet the standard requirements for handling GBV/SEA/SH as well as VAC. It will involve handling complaints and feedback from all stakeholders involved in the project. In addition to handling complaints, the GRM will also aims at strengthening accountability to the project communities to help identify a range of protection, fraud and malpractices as well as other concerns related to the delivery of the project. The complaints will be received through the Grievance Management Committee (GMC) located within easy reach of project beneficiaries. The Community

Development Officers (CDOs), Community Facilitators and Community Monitoring Groups will act as community focal points and will support the GMCs in registration as well as referrals, psychosocial support services, and case management of all grievances submitted by project and non -project beneficiaries. GBV/SEA/SH cases that need investigation and prosecution will be referred to the police and will be prosecuted by the courts of law whenever necessary. The GMCs and all the stakeholders as well as the NSP involved in the referral pathways will be trained to enhance capacity for all teams managing GBV/SEA/SH grievances and referrals at all levels for better management of the vices in a more systematic way. The Community focal points and GMCs will be trained on the survivor-centred approach and GBV guiding principles, data management, and roles and responsibilities to facilitate safe, ethical and confidential referrals.

Additional channels through which GBV/SEA/SH cases can be reported include: telephone calls (designated phone contacts provided by MAAIF, and CSATP at district, community and national levels meant for easy reporting either using pay phone or MAAIF toll free lines. Individuals will be encouraged to freely walk into MAAIF and CSATP offices at all levels – national, district, community and project offices to report GBV/SEA/SH cases. Similarly, any case that will be reported/referred at any level will be followed up and investigated up its conclusion. The project will build the capacity of the persons/team that will be in charge of receiving information/phone calls or managing complaint registers from the public/community on GBV/SEA/SH handling.

h) **National Service Provider (NSP):** MAAIF will recruit a dedicated GBV Nominated Service Provider (NSP), who will be introduced to all GMCs within the project area and to all stakeholders. The major responsibility of the NSP will be to receive alleged GBV/SEA/SH reports from GMCs, gather alleged cases from suggestion boxes put at designated points within the community, and receive alleged cases from other community focal persons, who include Community Development Officers, Community Facilitators and Community Monitoring Groups and any other member of the community. Other entry points will be referred to the NSP for psychosocial support services, case management and referrals. Received cases of SEA/SH from all the entry points will be referred to the NSP for psychosocial support services, case management, documentation and referrals.

i) Accountability and Response Framework: Currently, MAAIF does not have a gender policy as well as project guiding documents, including the "Support Protocol – Pathways to Service Provision for Survivors of GBV and VAC". Several projects have incorporated a number of GBV management strategies piecemeal, especially in the works contracts. Thus, MAAIF intends to develop a strong GBV/SEA/SH reporting protocol that provides for timely and safe reporting of GBV/SEA/SH incidences. MAAIF currently uses NUSAF3 established **GRM** with MIS module that provides for registration of all grievances and complaints. However, MAAIF also intends to adopt the standardized MGLSD referral pathways which has several entry points to help in the reporting, documentation and fast tracking of GBV/SEA/SH survivors.

The NSP will be the lead focal point for all GBV/SEA cases within the project area. All reported cases or referred to the project will first get to the NSP. The NSP is responsible for documentation, provision of GBV case management, referrals and follow-ups. The NSP is charged with responsibility of informing the Gender Specialist (GS) recruited by MAAIF, who then verifies the SEA allegations, makes recommendations, and sends the report to the Supervising Consultant. The Supervising Consultant is responsible for all project workers and will ensure that GBV/SEA/SH policies and guidelines are strictly adhered to. This person will also ensure that all workers have a signed CoC

that prohibits GBV/SEA/SH and that they are trained on these issues. The supervising consultant is responsible for submitting the report to the Project Manager who prepares a response and sends to the designated official at MAAIF, who will then communicate the incident to the Bank.

j) **Implementation of the Action Plan:** This Action Plan will be implemented and monitored by MAAIF and overseen by UCSATP and supported by the Gender Specialist. MAAIF intends to secure all the required specialists as well as the NSP before the project works commence.

ACTION PLAN

The action plan gives clear details and specific measures for GBV/SEA/SH risk mitigation under the proposed CSATP. These include the mitigation measures already in existence and steps to be undertaken to further mitigate and respond to risks and cases/allegation of GBV/SEA that might occur within the various project sites.

Table 10-9: Implementation of the CSATP GBV/SEA/SH Action Plan for UCSATP

	Activity to Address GBV/SEA/SH Risks	*Steps to be Taken*	*Time Lines*	*Responsible Agency/Unit*	*Monitoring (Who will Monitor)*	*Output Indicators*	*Estimated Budgets (UGX)*
1	***Sensitize the IA on the importance of addressing GBV/SEA/SH on the project, and the mechanisms that will be implemented***						
	Train the IA/PIU/TST (Management/leadership) on BGV/SEA/SH to include: * Accountability and response framework * Responsibilities and reporting * Existing institutional protocols on GBV/SEA/SH	• Develop the ToRs • Secure technical expertise, • Conduct training for targeted members • Include BGV/SEA/SH as an agenda in updates /quarterly meetings	April 2022	Consultant, WB, OPM, Nominated Service Providers (NSPs), CSATP and MAAIF	MAAIF, OPM, WB	Number of trainings conducted; Number of IA/PIU/TST members trained	60.000,000
2	***Conduct GBV/SEA/SH assessment at project sites***						
	Conduct a GBV/SEA/SH risk assessment in project areas to inform risk mitigation strategies	• Integrate GBV/SEA/SH risk assessment tool into ESMF • Develop ToRs • Procure consultant to conduct the assessment	May 2022	Consultant, MAAIF, in coordination with MoGLSD and WB	MAAIF & WB	GBV/SEA/SH risk assessment report	80,000,000
3	***Map out GBV/SEA prevention and response service providers***						
a)	Identify existing GBV/SEA/SH Service Providers in the project areas and develop a multisectoral GBV/SEA/SH referral pathways in line with the National Systems and guidelines developed by MGLSD.	Review for existing GBV/SEA/SH service provider referral lists; Identify active GBV/SEA/SH Service Providers in the project areas, Update GBV/SEA/SH referral pathways	June – August 2022	Consultant; MAAF-GBV Specialist & Safeguards Specialist; MGLSD focal persons; NSPs; and World Bank	MAAIF & WB	GBV/SEA/SH Service Provider mapping Report; Referral pathways developed/updated Number of Service providers in the project area with capacity on GBV/SEA/SH; Qualified NSP nominated and procured	5.000,000

b)	Review capacity and quality of GBV/SEA/SH Service Providers in the project areas	develop tools for assessing capacity of GBV/SEA service; conduct organizational capacity assessment.	In the first quarter	MAAIF	MAAIF, Gender Consultant and WB	GBV/SEA Nominated service provider in place	
c)	Disseminate the referral pathway to stakeholders including service providers	Distribute the SEA/SH referral lists widely & in public places	July 2022	MAAIF	MAAIF	SEA/SH Referral Pathways disseminated	NSP Budget
d)	Stakeholder consultations on GBV/SEA/SH situation with LG, NGOs, Community structures	develop a Stakeholder Facilitation Guide; Conduct stakeholder consultations; Conduct regular GBV/SEA/SH safety audits; prepare reports.	July 2022	MAAIF	MAAIF	Number of stakeholder consultations done	NSP Budget
4.	**Strengthen Institutional capacity for GBV/SEA/SH risk mitigation and response**						
a)	Engage/hire a GBV/SEA/SH Specialist at MAAIF to supervise and provide technical support for the implementation of GBV/SEA/SH Action Plan	Procure services of a qualified and competent GBV/SEA specialist to supervise and provide technical support for the implementation of GBV/SEA/SH in projects	April - June2022	MAAIF	MAAIF&WB	Qualified GBV/VAC specialist hired	…… 660,000,000 (Based on a rate of USD 5000 per month for the 3 years)
b)	Support capacity of local systems to prevent and respond to GBV/SEA (police, health, legal, CDOs, CBOs); strengthen the reporting mechanisms & procedures of local systems; Strengthen a survivor centred referral and response. * Strengthen coordination for better services with local/national GBV/SEA service provider	identify key stakeholders to engage; Develop training plan; Develop training material/ content using global/national standards, human rights and survivor centred approaches conduct training and mentoring; conduct regular coordination meetings with service providers for effective referrals.	Maintained throughout Project implementation.	Consultant, MAAF, MGLSD	MAAIF & WB	• umber of trainings conducted • umber of coordination meetings conducted	80,000,000
5.	***Integrate GBV/SEA/SH risk management in Contractors' Environment and Social Implementation Plan (ESIP)***						
a)	Incorporate GBV/SEA/SH risks in the Contractor's Bidding Documents (BOQs) and the Environment and	Integrate GBV/SEA/SH considerations in the Contractor's Environment and	July onwards	MAAIF	MAAIF & WB	Updated ESIP with GBV/SEA/SH	Contractor + NSP Budget

	Social Implementation Plan (ESIP)	Social Implementation Plan (ESIP)					
b)	Develop/review SEA/SH response and accountability framework to include: Allegation Procedures to report SEA/GBV incidents and internally for case accountability procedures	develop/review GBV/SEA/SH Allegation Procedures to report GBV/SEA/SH issues inform employees and the community on how to report cases of GBV/SEA/SH, develop mechanisms to hold accountable alleged perpetrators	August – October 2022	MAAIF & Consultant	MAAIF & WB	An established and functional accountability framework	
6.	***Review the IA's capacity to prevent and respond to GBV/SEA/SH***						
a)	Review for attention to GBV/SEA/SH: human resource manuals and staff capacity. existing GBV/SEA Policies and procedures. Project code of conduct.	Capacity assessment of the IA; Review MAAIF's ESMS and procedures/Guidelines; Review Project Frameworks to identify GBV/SEA/SH policies and procedures.	TBD	MAAIF & Consultant	MAAIF	GBV/SEA/SH prevention and mitigation measures addressed in policy documents	80,000,000
b)	Review and update the CSA TP's reporting mechanism to include reporting protocol and procedure for allegations of GBV/SEA/SH as recommended by the Bank	Engage CSATP to provide guidance on code of conduct while working in the communities on GBV/SEA/SH Review CSATP 's protocols for GBV/SEA/SH Review the ToRs for the CSA coordinating team and Integrate GBV/SEA/SH mitigation in protocols and ToRs	TBD	MAAIF & Consultant	/MAAIF	Updated CSATP protocols and ToRs integrating GBV/SEA/SH prohibitions	
c)	Identify and train/support an officer on GBV/SEA/SH specific skills in the project operations	Identify an officer with a social/human rights background and support him/her on GBV/SEA/SH risks mitigation.	TBD	MAAIF, MGLSD, WB,	MAAIF & MGLSD	A qualified and competent GBV specialist recruited	Covered under 4 (a)
d)	Integrate and update GBV/SEA/SH awareness sessions in the Training and Capacity Building of the Constructors & TAs for construction	• Develop a training plan • Conduct training for construction workers • Integrate CoC on	TBD	MAAIF, MGLSD & DLGs	MAAIF, DLGs	Number of GBV/SEA/SH sessions conducted for project staff	

	works in project areas: CoC & ToR on GBV/SEA/SH protocols & procedures on allegations of GBV/SEA/SH	GBV/SEA/SH prohibitions discussions in briefings to constructors and TA teams.					
e)	Develop M&E programme in-line with projected targets	Develop an M&E plan for work plan implementation Monitor GBV/SEA/SH Implementation Plan	January –March 2023	MAAIF	MAAIF, Consultant & WB	M&E framework in place; Number of monitoring activities done and reports produced on quarterly basis.	To be financed as internal MAAIF activity
f)	Conduct GBV/SEA orientation training for project staff to include: Referral policies on SEA/SH; CoC on GBV/SEA/SH; Reporting and allegation procedure.	• Develop a training plan • Develop training materials • Conduct training for project staff.	January –March 2023	MAAIF	MAAIF, MGLSD & WB	Number of training conducted for project staff.	20,000,000
7	***Inform project affected communities about SEA/SH risks***						
a)	Develop information dissemination strategy	develop a strategy identity the methods to disseminate the information; and dissemination of information publicly to stakeholders.	January –March 2023	Communication team (MAAIF, etc.)	MAAIF & Consultant	A SEA/SH communication strategy in place Nº. of IEC materials disseminated	80,000,000
b)	Develop/adapt relevant IEC materials for community engagements	Develop, adopt and standardize relevant IEC materials and translate them into local languages of the project locations	January –March 2023	Communication team (MAAIF, MGLSD, etc.)	MAAIF & Consultant	Number and type of GBV/SEA/SH IEC material developed	To be financed under IEC budget above
c)	Establish partnerships with CBOs/CSO's and local government institution	identify and select partners and officially inform them; engage partners, conducting joint community meetings and awareness raising	TBD	MAAIF, consultant & DLGs	MAAIF, Consultant & DLGs	Partnership map/report	30,000,000
d)	Develop Stakeholder Engagement Plan for GBV/SEA related issues	Develop a comprehensive GBV/SEA Stakeholder Plan	January –March 2023	MAAIF, CSATP	MAAIF	Stakeholder engagement plan	NSP Budget
e)	Conduct community sensitisation on GBV/SEA/SH risks	develop a Community sensitization plan, material and messages; Conduct community sensitization (Radios, posters, community engagements)	January –March 2023	MAAIF & LDGs	MAAIF	Number of District, sub county and community sensitizations conducted	NSP Budget

8	***GBV/SEA/SH sensitive channels for reporting in GRM***						
a)	Develop/Review GRM for specific GBV/SEA/SH procedures	undertake internal review of GRM for SEA/SH mitigation integrate GBV/SEA/SH entry points within the GRM with clear procedures; develop/update GBV/SEA/SH reporting and allegation procedures.	January –March 2023	Consultant & MAAIF	MAAIF & WB	GBV/SH procedure integrated in Ministries – MIS-GRM module	
b)	Identify and train GBV/SEA/SH focal points within the GRM who will be responsible GBV/SEA/SH cases and make referrals to the NSP and or other relevant stakeholders as defined in the referral pathways.	identify and select GBV/SEA focal persons within the GRC; clarify the role of the focal points in GBV/SEA/SH as referral points; and train the focal points on GBV/SEA/SH basics and the referral pathways	January –March 2023	MAAIF	MAAIF & WB	number of focal persons identified and trained in all districts; Number of GBV/SEA/SH cases received, referred and resolved	
c)	Review GRM reports/logs for GBV/SEA/SH sensitivity	Review logs for GBV/SEA/SH documentation to ensure it follows standards for documenting GBV/SEA/SH cases.	January onwards	MAAIF GBV Specialist, Safeguards Specialist	MGLSD & WB	Number of reviews done on GRM reports	Covered under 7 c And to be to be financed under IEC budget
9	***Define and reinforce GBV/SEA/SH requirements in procurement processes and contracts***						
a)	Incorporate GBV/SEA/SH Requirements and expectations in the contractor/ suppliers/ consultants' contracts.	Ensure that GBV/SEA/SH issues are incorporated in all contracts signed by contractors/consultants/ suppliers.	October onwards	MAAIF	MGLSD & WB	SEA/SH standards in procurement/contract document	
b)	Allocation of funds for GBV/SEA/SH related costs in procurement documents.	Clearly define GBV/SEA/SH requirements and expectations in the bid documents under ESMP activities	October onwards	MAAIF	MGLSD & WB	Bid documents with clearly defined GBV/SEA/SH requirements	

c)	Codes of Conduct understood and signed	• Define the requirements to be included in the CoC that address GBV/SEA/SH • Review CoC for provisions/clauses that guard against GBV/SEA/SH • Have CoCs signed by all contractors/suppliers/consultants.	October onwards	MAAIF	MGLSD & WB	Contract documents with clearly defined GBV/SEA/SH clauses/requirements	Covered under Contractor's Cost and NSP external Facilitators)

10.11 ANNEX 11: SUMMARY OF PROCEEDINGS FROM VIRTUAL MEETINGS

JBN Solutions that last	Meeting with the CSOs working with the Batwa.		
	DATE		20th April 2022
	MEETING	START	10:00 am
		END	10:45 am
	MINUTES BY		Ms. Nelson Omagor

Venue of meeting	A virtual Meeting by Mr. Nelson Omagor, Environmental and Social Safeguards Consultant and ***Ms. Penninah Zaninka Coordinator CSOs working with Batwa (0772660810).***
Subject of the Meeting	Stakeholder consultations on the planned Uganda Climate Smart Agriculture Transformation Project with specific reference to involvement of the Batwa who are Vulnerable and Marginalized Group.

The Meeting focused on the following aspects:

A. Agenda:

a. Self-Introductions
b. Introduction of the project; its objectives, activities and beneficiaries as well as focus on Batwa involvement
c. Submission by Thomas addressing agricultural challenges amongst the Ik with climate challenges and how they expect the project to be implemented with respect to Batwa and vulnerable people.
d. Closure of the Meeting.

B. Self-Introductions

Self-introductions by the meeting and the subject of the Meeting was shared.

The Consultant introduced the Project and outlined its objectives, planned activities as well as coverage of the Batwa people amongst the vulnerable people. The project is called Uganda Climate Smart Agriculture Transformation Project and MAAIF and that, services of JBN Consults and Planners Ltd had been retained for these services in keeping the World Bank requirements during project preparations. He added the project is answer to dwindling agricultural production occasioned largely by erratic climatic changes. As part of the project preparation process, its required that some of the key environmental and social safeguards documents need to be prepared and these include; ESMF, SEF and VMGF which is why the meeting now to provide input to these processes.

C. Overview on the proposed project

a. In Uganda Agriculture is mainly dependent on rain therefore the climate shocks will continue to have significant direct and indirect impacts on agricultural productivity and incomes so there is need to build resilience to climatic shocks;
b. The consultant informed Ms. Penninah how the project will support investments in technologies and market driven productivity in climate smart value chains which will contribute to reversing of climate change hence increase in agriculture productivity and household incomes; and
c. Some of the project components are promoting adoption of climate smart agriculture practices and value

chains, strengthening climate smart agricultural research and seeds systems, strengthening agro-climatic monitoring and information systems and project coordination management, monitoring and evaluation and learning.

D. Submission by Ms. Penniah on addressing agriculture production challenges amongst the Batwa Communities with a focus on climate change risks and how they would expect the project to be implemented with respect to Ik and vulnerable people.

In the discussion Ms. Penninah submitted that:

a. Land size and fertility are major constraints towards agricultural yields and contributors to food insecurity amongst the Batwa communities. It is also compounded by poorer fertility of Batwa cultivation plots compared with how the cultivation plots of other communities in neighboring districts in Kanungu are. This is all part of well-known historical injustices where the Batwa were pushed out of their productive lands for the sake of conservation;
b. Due to land scarcity, Batwa households do practice over-cultivation, that depreciates their land fertility thereby depriving of them of good yields and food insecurity.
c. Sometimes the Batwa communities do have good food harvests and good food access in terms of both quantity and quality and these happens during times of good rains and supply of good seed supply and absence of extreme weather events (e.g. drought, hailstorms), pests and crop raiding by wildlife from nearby national parks;
d. Extreme weather events in both the dry and rainy seasons are some of the most frequent hazards in Batwa areas. During the dry season, many food crops dry up and the people have poor harvest and limited food items to eat. Some years, people plant millet it can rain heavily and all the seeds get washed by the storms;
e. Droughts are perceived to be particularly difficult as they impact both food and water security: "***We are affected by drought [a month or longer], like once a year. Dry seasons don't only affect the crops but also our water sources dry up, yet most of the work and activities we do at home all rely on using water"*** (…..reported by Penninah Zannika pers.com.,);
f. Awareness of potential coping strategies is key and the Batwa should be given tailormade programs addressing; crop rotation, inter-cropping, crop diversification, tree planting, cash crops growing such as tea and coffee, animal husbandry, support towards bee-keeping, provision of agricultural inputs to support improved yields, post-harvest technologies and long-term planning can be potential strategies to address improved crop production in the communities of the Batwa;
g. However, lack of land to a very big extent restrict implementation of food production coping mechanisms. For example, different harvesting cycles of vegetables and legumes can provide food year-round if timed appropriately, but small plots cannot support such a diversity of crops. Sometimes communities are not able to produce adequate crop yields, they can grow food crops and after harvesting, they can survive on them for about a month and they get finished. They can never grow crops that can last for over a year whereas non-Indigenous neighboring (Bakiga) population are able to plant both staple and cash crops (coffee, tea), which lead to food security and improved cash wealth. The Batwa equally want to grow such crops and be wealthy but the question of land is a problem;
h. By and large, amongst the Batwa members, there is a feeling that, they are systematically excluded from the political processes in Uganda due to systemic and structural barriers. For instance, many of them don't have national identification cards and this makes it hard for them to access Government programs because those without national Identity cards are not recognized as Ugandan citizens. A number of them lack access to quality education in private schools because of school fees;
i. To address the challenges of climate change, Uganda implemented an adaptation agenda through a number of policy measures including the National Adaptation Plan and periodic National Development Plans. However, from the discussions, it emerged that, the Batwa we're not included meaningfully in the decision-making processes of these plans. This means that the interventions that target them are poorly designed and implemented;
j. Amongst the communities of the Batwa, rainwater harvesting investments in the form of household roof

tanks or community tanks only work for Batwa who live in permanent houses who are just a handful as such, that intervention in terms of climate mitigation is not realistic to the Batwa but there are resources by Government and development partners meant to relieve water scarcity through such but they get excluded. Worse, they are by large, mostly landless who live in temporary houses and won't benefit at all;

k. In one area in where there they are settled, they on relatively barren, steep slopes. Here they were expected to live and do farming and how can they participate in meaningful and rewarding agriculture? In another cases, they are provided interventions in terms of high yielding crop seeds to their households but a number of them do not even have any farmland.

What can work and how UCSATP can be implemented should be:

a. It is vital that, the Project has a tailor-made approach which is responsive to the needs and set up of the Batwa. Some sections of the Batwa communities do not have national identity cards and if have the identity cards is a compliance requirement to access project financing or otherwise, such groups will miss out;
b. To Penninah, it would also be worthwhile to draw on best practices and lessons from similar cases where similar types of interventions have worked amongst marginalized and vulnerable communities such as Batwa rather than to simply fit these groups into a program, that may not work well. A case of the world's first national indigenous climate platform in Peru which is reported to have some success stories and such stories could as well inform UCSATP program. Through such stories, impetus is to prioritize these groups and to even strengthen the role of VMG in mitigating and adapting to climate change could get well informed;
c. Based on her experience, climate adaptation responses must pay more and specific attention to the issues of recognition, participation and deliberate processes geared towards creating and building sustainability in the marginalized and vulnerable communities rather than some approaches focusing on distribution of food aid and handouts;
d. Deliberate drive to grow alternate cash crops such as coffee, tea and agro-forestry is critical for the sustainability of these communities and the project needs to factor such into their plan for Batwa;
e. Ms. Penninah recommends that, UCSATP in its PMU should amongst its staffing should include a VMG Specialist who amongst others, is to ensure information regarding the project is accordingly packaged and delivered to and from VMGs for their effective and meaningful involvement in UCSATP;
f. Finally, within available lands amongst the Batwa, UCSATP and MAAIF should focus on maximizing production more efforts are needed to end discrimination and domination against Indigenous communities and promote inclusive structures and processes through legal and policy reforms.

E. Reaction from JBN consults

The Consultant informed Ms. Penninah that the project was still at its preparation stage and these ideas will be passed on to the Ministry for consideration.

F. Meeting Closure

The Meeting was closed at 09:59pm

JBN Solutions that last	Meeting with the Sub-county Chief Ik/Distict Commercial Officer Kotido district		
	DATE		19th April 2022
	MEETING	START	09:50 am
		END	10:20 am
	MINUTES BY		Ms. Nelson Omagor

Venue of meeting	A virtual Meeting by Mr. Nelson Omagor, Environmental and Social Safeguards Consultant and ***Mr. Thomas Lemu Sub-county Chief Kabong/Ik Community Liaison Officer (0772199992).***
Subject of the Meeting	Stakeholder consultations on the planned Uganda Climate Smart Agriculture Transformation Project with specific reference to involvement of the Ik who are Vulnerable and Marginalized Group.

The Meeting focused on the following aspects:

G. Agenda:

e. Self-Introductions
f. Introduction of the project; its objectives, activities and beneficiaries as well as focus on Ik involvement
g. Submission by Thomas addressing agricultural challenges amongst the Ik with climate challenges and how they expect the project to be implemented with respect to Ik and vulnerable people.
h. Closure of the Meeting.

H. Self-Introductions

Self-introductions by the meeting and the subject of the Meeting was shared.

The Consultant introduced the Project and outlined its objectives, planned activities as well as coverage of the Ik people amongst the vulnerable people. The project is called Uganda Climate Smart Agriculture Transformation Project and MAAIF and that, services of JBN Consults and Planners Ltd had been retained for these services in keeping the World Bank requirements during project preparations. He added the project is answer to dwindling agricultural production occasioned largely by erratic climatic changes. As part of the project preparation process, its required that some of the key environmental and social safeguards documents need to be prepared and these include; ESMF, SEF and VMP which is why the meeting now to provide input to these processes.

I. Overview on the proposed project

d. In Uganda Agriculture is mainly dependent on rain therefore the climate shocks will continue to have significant direct and indirect impacts on agricultural productivity and incomes so there is need to build resilience to climatic shocks;
e. The consultant informed the key person how the project will support investments in technologies and

market driven productivity in climate smart value chains which will contribute to reversing of climate change hence increase in agriculture productivity and household incomes; and

f. Some of the project components are promoting adoption of climate smart agriculture practices and value chains, strengthening climate smart agricultural research and seeds systems, strengthening agro-climatic monitoring and information systems and project coordination management, monitoring and evaluation and learning.

a. Submission by Thomas Lemu addressing agricultural challenges amongst the Ik with climate challenges and how they expect the project to be implemented with respect to Ik and vulnerable people.

In the discussion Thomas submitted that:

- The production went up because UPDF Disarmament was a reality in that, there was peace and people were really settled;
- Over the last 10 years people of Kabong and Ik people have been producing millet, sorgum and maize in good quantities because their soils are good and the weather has been favourable;
- The farming calendar amongst the Ik starts in February with land preparation and ploughing but cattle rustlers have virtually taken all oxen in the communities so opening land is a nightmare;
- One the problem the Ik have is access to accurate weather information and such information ought to be readily available in their local dialects so that they are able to synchronize their cropping calendars. Unfortunately, the Weather Station constructed by Government in Kabong has not been equipped and non-functional. The UCSATP should avail programs of early warning to the communities so as to address cropping timings;
- The project should be careful in its design, operations and management of its revolving funds. For instance, when Government came with its *Emyoga* funds for small-scale interventions, the beneficiary community took it as a political hand-out and an appreciation after the elections. It is critical, that there is adequate mobilization and sensitization and a high level of readiness otherwise the intervention can come to nothing;
- Literature has it that, Karamoja has benefitted from a number of assistance programs but there isn't much to show on the ground except lately NUSAF and DRDIP projects in OPM. Lately, the Ik communities urge that, technical staff managing project interventions in their areas should be from Ik people unless it really emerges that, there are no such specialities amongst then a person originating from Kabong could be considered this is because they know the special needs of their people and their cultural implications of dealing with outside world;
- Lately, cattle rustling has taken another dimension and become commercialized involving local leaders, it has even become cross-border in nature and the net effect is, the factor of agricultural production has been taken i.e. oxen so famine will be worse in a few years to come;
- Cattle are raided and taken in waiting trucks guarded by soldiers and this has had its impact on farming; and
- The other problem is, there thieves all-over the villages stealing food in granaries, uprooting crops in gardens. What is worse, even the Village Saving and Loan Associations (VLSA) thought are being frustrated by some members themselves in some areas amongst the IK and across the district. Some members go and alert thieves about what a group has saved and they come for the box. So, managing a revolving fund must be well thought of before starting or having it as part of the project.

The following are some of the suggestions regarding the UCSATP as per the Ik Community Mobilzer:

b. Because of rampant cattle raids, the Ik are more comfortable with enterprises to do with bee keeping and there is a claim that, the Ik people or communities have best honey in the world"

c. The cattle raids have left the communities exposed to worse famine than ever and it would be good, the project works hand in hand with OPM to also deliver food assistance to the beneficiary communities in the project otherwise, they can end up selling project in-puts for quick funds for their survival;
d. The community structures to a very large extent should be used amongt the Ik to opertaionliza the project. For instance, the elderly men (*Ikasukoun*), youth (*Ikaracuna*) and women (*A'ngoria*) have different and clear roles in the communities and should be targeted differently for different development aspect. The Elders are usual in mobilization of youth because their special place and respect in society, the youth fear to oppose anything the elders advance;
e. Let UCSATP provide Ik with simple mechanized agricultural equipment because lately cattle rustling has swept virtually all cows amongst the Ik people and they begin to feel safe without cattle for fear of rustlers;
f. Interest groups and vulnerable categories ought to have their resources and involvement be ring-fenced others often they are left out during implementation. What is key, let there be clear provisions for interventions meant for vulnerable groups in view of their uniqueness. In NUSAF 2 and 3 there was a special program and approach meant for Karamoja which should be the case under UCSATP otherwise these groups tend to miss out from programs where they are included in the overall project interventions; and
g. The last intervention of restocking should occur after successfully having in place sound disarmament program by UPDF otherwise the cows will simply be stolen by the raiders and this can upset all projects meant for VGMs and Karamoja at large.

J. Reaction from JBN consults

The Consultant informed Mr. Thomas that the project was still at its preparation stage and these ideas will be passed on to the Ministry for consideration. The Consultant appreciated the CDO for the information shared and the time spared towards the success of the project

K. Meeting Closure

The Meeting was closed at 09:59pm

JBN Solutions that last	Meeting with Environment officer of Kakumiro district		
	DATE		10th February 2022
	MEETING	START	16: 09
		END	16:23
	MINUTES BY		Ms. Drolence Nandagi.

Venue of meeting	Meeting called by Ms. Drolence and it was a virtual meeting with (Mr Tibagwana Peter) Kakumiro Environment Officer. (0772108877)
Subject of the Meeting	Consultation of the stakeholder on the planned Uganda Climate Smart Agriculture Transformation Project

A. Agenda:

a. Self-Introductions
b. Introduction of the project
c. Consultant's response
d. Closure

B. Self-Introductions

a. Introductions were made by Ms. Drolence the Consultant sociologist
b. The Consultant gave a background information about the project under preparation and it is Uganda Climate Smart Agriculture Transformation Project to be implemented by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and services of M/S. JBN Consults ad Planners Ltd have been retained to prepared environmental and social safeguards documents namely; the ESMF, Stakeholder Engagement Framework (SEF), Vulnerable and Marginalized People Plan (VMPP) and Gender Based Action Plan (GBVAP). and VMP for the proposed project.
c. The purpose of the Meeting therefore was to pick areas of concerns that need to be built into the project to improve its compliance with both GoU and World Bank Environmental and Social safeguards.

Overview on the proposed project

a. In Uganda Agriculture is mainly dependent on rain therefore the climate shocks will continue to have significant direct and indirect impacts on agricultural productivity and incomes so there is need to build resilience to the current rampant climatic shocks.
b. The Consultant informed the DEO that the project will support investments in technologies and market driven productivity in climate smart value chains which will contribute to reversing of climate change hence increase in agriculture productivity and household incomes.
c. Some of the project components according to the discussion are to promote adoption of climate smart agriculture practices and value chains, strengthening climate smart agricultural research and seeds systems, strengthening agro-climatic monitoring and information systems and project coordination management, monitoring and evaluation and learning.

C. Reactions from the District Environmental Officer (environmental and social concerns)

a. The DEO informed the Consultant that, the project is a timely intervention by Government and its partners and it focuses on areas that are key lately in view of short rains and poor harvests by the farmers bringing about sustained harvests and household food security
b. The Environment Officer appreciated the Team for having involved him at the planning stage because most projects don't involve them which leaves a very big gap in many projects and end up failing and related difficulties on matters of compliance.
c. There is an issue of low budgeting where by the funders fail to facilitate for the local government and assume they have their own facilitation which slows down the monitoring and follow up on the project during implementation.
d. The environment officer advised that there is need for the project implementers to involve them and facilitate their participation so that, input from the communities is built into the project because they are the ones on ground and have all the necessary information.
e. He advised that, that capacity building is necessary for both technical team and the local community for effective compliance.
f. He suggested that for the success of the project roles and responsibilities should be clear for different stakeholders.

The following are the fears expressed and how best they could be addressed:

a. The DEO's greatest fear was exciting people about the project and in the end Ministry of agriculture just keeps quiet without the project proceeding any further;
b. Secondly, using the local people momentarily and before the end of the project, they are left out without any clear procedures and payments; and
c. There is fear of failure to be planned for in terms of facilitation for the key stakeholders therefore for better in out puts they need proper input.

Reaction from the Consultant

In a nutshell, the Consultant appreciated the DEOs input and pledged to integrate his concerns into the project by both the Bank and MAAIF.

Thereafter, the Meeting ended at 16:23pm

	Meeting with DEO of Kumi district		
	DATE		7th February 2022
	MEETING	START	12:00 noon
		END	01:00 pm
	MINUTES BY		Ms. Drolence Nandagi.

Venue of meeting	It was a virtual meeting between Ms. Drolence (Consultant) and Mr. Opio Moses the Kumi District Environment Officer. (0784362155)
Subject of the Meeting	Consultation of the stakeholder about the Uganda Climate Smart Agriculture Transformation Project

The interview was between Drolence and Opio Moses the District Environment officer of Kumi district.

A. Agenda:

1. Self-Introductions
2. Introduction of the project
3. Consultant's response
4. Closure

B. Self-Introductions

Introductions were made by Ms. Drolence the Consultant sociologist

The Consultant informed the DEO that GoU was preparing the safe guard documentation that is going to help us in preparing the Environmental and Social tools, ESMF, SEF and VMP for the proposed project.

Overview on the proposed project

The Consultant gave a background information about the project under preparation and it is Uganda Climate Smart Agriculture Transformation Project to be implemented by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and services of M/S. JBN Consults ad Planners Ltd have been retained to prepared environmental and social safeguards documents namely; the ESMF, Stakeholder Engagement Framework (SEF), Vulnerable and Marginalized People Plan (VMPP) and Gender Based Action Plan (GBVAP). and VMP for the proposed project.

The purpose of the Meeting therefore was to pick areas of concerns that need to be built into the project to improve its compliance with both GoU and World Bank Environmental and Social safeguards.

C. Reaction from the DEO

a. The DEO was very happy to hear of the above project and was gladly waiting for the project to be implemented and promised to give all the necessary support in his capacity in regards to documentation of Environmental and social tools.
b. He explained that it would be a great idea to work with the right structures on the ground forever example fisheries officers, veterinary officers and community members should be involved at this preparatory stage for the project.

c. The DEO was concerned that, in many cases projects are designed without building in measures for their sustainability to the extent that, once the project closes, everything about such projects end. The other issue is, sustainability is key in that, even when equipment for the project breaks down, the locals whose capacity will have been built can support the project otherwise projects end up being huge white elephants just because of simple breakdowns which could easily be fixed.

The following are the fears and how best they should be addressed

a. There is an issue of sustainability in a way that projects are time bound so there is concern that that when the project time elapses the project would just come to an end once and for all.
b. There is need to use the existing structures in the district for the project area to ensure success of the project
c. The DEO asked about the main beneficiaries and during implementation, such beneficiaries be targeted.

Reaction from JBN consults

The Consultant informed the DEO that the beneficiaries have been identified and they will involve in the project throughout the project as in the project documents. There are also plans for deliberate capacity building in the project to ensure its sustainability beyond the life of the project.

The Meeting was adjourned at 15:50pm.

	Meeting with DCDO of Lira district		
	DATE		9th February 2022
	MEETING	START	09:50 am
		END	10:20 am
	MINUTES BY		Ms. Drolence Nandagi.

Venue of meeting	A virtual Meeting by Ms. Drolence a Consultant Sociologist and Mrs. Anono Christine the Lira District Community Development Officer (0772672792) (CDO)
Subject of the Meeting	Consultation of the stakeholder on the planned Uganda Climate Smart Agriculture Transformation Project

The interview was between Ms. Drolence and Mrs. Anono Christine the District Community Development Officer of Lira District.

Agenda:

i. Self-Introductions
j. Introduction of the project
k. Consultants' response
l. Closure

Self-Introductions

a. They members did self -introductions thereafter, the meeting proceeded.
b. The Consultant Sociologist informed the CDO that the Ministry was preparing safeguard documentation as part of the overall project preparation process and these included; ESMF, SEF and VMP for the proposed project.
c. The project is called Uganda Climate Smart Agriculture Transformation Project and MAAIF and that, services of JBN Consults and Planners Ltd had been retained for these services in keeping the World Bank requirements during project preparations.

L. Reaction from the District Community Development Officer

The DCDO was welcomed the above project and informed the Consultant that they were looking forward to seeing it implemented for the benefit of the target communities for improved household incomes and food security;She informed the sociologist that the best people to be contacted first would be the agricultural officer and the natural resources officers as their sectors are in line with the project targets.

The following are the fears and how best they should be addressed

h. There is fear for the community members to left them being the key people to directly benefit from this project.

i. There is need to look for a wide market for crops grown so that farmers are able to sell their crops to avoid losses since crops grown on a large scale are not only for consumption but also commercial.
j. There is need to create enough training time for agriculturists not just limited time so that they are able to cope up with the new technologies and methods of Smart Agriculture; and
k. The DCDO wanted to know when ministry of Agriculture would be going on ground to put all what the project says on ground.

M. Reaction from JBN consults

The sociologist informed the DCDO that the project is still at its design/formative stages therefore, all these concerns will be taken into consideration and inbuilt into it. The Consultant appreciated the CDO for the information shared and the time spared towards the success of the project

N. Meeting Closure

The Meeting was closed at 09:59pm

JBN Solutions that last	Meeting with Environment officer of Palisa district		
	DATE		9th February 2022
	MEETING	START	16: 15
		END	16:23
	MINUTES BY		Ms. Drolence Nandagi

Venue of meeting	This was a virtual meeting between Ms. Drolence and Mr. Samuka Muhamed the DEO Pallisa District (0782556952)
Subject of the Meeting	Consultation of the stakeholder about the Uganda Climate Smart Agriculture Transformation Project

The interview was between Drolence and the Environmental officer of Pallisa District.

A. Agenda:

a. Self-Introductions
b. Introduction of the project
c. Consultants' response
d. Closure

B. Self-Introductions

Introductions were made by Drolence the consultant sociologist

The sociologist informed the environmental officer that, GoU through MAAIF was preparing environmental and social safeguard documents as part of the overall project preparation and the tools under preparation were; ESMF, SEF, GBVAP and VMP for the proposed project.

The project is the Uganda Climate Smart Agriculture Transformation Project under MAAIF and that role is being undertaken by M/S. JBN Consults and Planners Ltd and it is to be financed by the World Bank.

C. Overview of the project

a. In Uganda Agriculture is mainly dependent on rain therefore the climate shocks will continue to have significant direct and indirect impacts on agricultural productivity and incomes so there is need to shift way land, water soil and other agricultural activities to build resilience to climatic shocks
b. The Consultant informed the key DEO how the project will support investments in technologies and market driven productivity in climate smart value chains which will contribute to reversing of climate change hence increase in agriculture productivity and household incomes.
c. Some of the project components are promoting adoption of climate smart agriculture practices and value chains, strengthening climate smart agricultural research and seeds systems, strengthening agro climatic monitoring and information systems and project coordination management, monitoring and evaluation and learning.

D. Some of the concerns from the DEO.

a. The project should come with technologies that will help address climate change risks and ensure its sustainability and most important, the technologies should be easily adapted by the local farmers.

JBN Solutions that last	APAC MINUTES		
	DATE		24th February, 2022
	MEETING	START	12:43
		END	12:58
	MINUTES BY		Ms Drolence Nandagi.

Some projects have complicated technologies which cannot easily adapted by the local communities;

b. Value chain improvements interventions must incorporate measures and technologies for aste management which use technologies like rec-cycling etc;
The livestock component has to come with technologies for Greenhouse gas management especially biogas technologies and applications;

c. The SLM measures should equally look at supporting local governments with respect to wetland protection in view of current encroachment. We need to get people from wetlands but give them what alternate sources of income at household levels;

d. Interest groups and vulnerable categories ought to have their resources and involvement be ring-fenced others often they are left out during implementation.

Reaction from JBN consults

The consultant appreciated the Pallisa environment officer for his time and the information shared will be of great use in the success of the project.

E. Meeting Closure

The Meeting was closed at 16:23pm

Subject of the Meeting	Stakeholder consultation

Introduction

The meeting took place between the District Community Development Officer Apac and the consultant. (Mr Okello Tom 0772660023).

Fears

He noted fears of land conflicts amongst the community members in Apac.

Concerns

a. Issues of encroachment in swamps and wetlands by communities who grow rice growing hence, swamp reclamation. The project should come with alternatives that get people out of wetlands if this CSA project is to meaningfully support environment and natural resource management.
b. Rampant bush fires leading to soil erosion and the project could help address this through community sensitization in the project;
c. Tree cutting by communities has degraded the environment, the need the project come clear with measures of tree planting and the women be on the forefront on this as well as the youth. How are schools being targeted as well as tertiary training institutions as well as academia?
d. Insufficient water supply as many farmers rely on rain water for irrigation therefore, irrigation technologies ought to be those even local communities can co-opt and operate.
e. Lack of mechanization. There is urgent need for mechanize of agricultural operations so that agriculture is not seen as a burden but rather a venture that is enjoyable and profitable capable of attracting youth not when it has still its hand hoe technology.

Some thoughts on making the project sustainable

a. Farmer's Education is vital. Many farmers are unaware of better methods of farming
b. He emphasized use of sustainable Clean Energy for example Bio-gas to combat the practice of deforestation/Tree cutting.
c. Modernization in Agriculture through introducing modern technology hence boost efficiency, productivity and quality.
d. Encourage forest management.
e. Enterprise diversification working on cottage industries in Apac.
f. There is need for restricting gender relations of production to promote gender equality in access to productive resources.
g. There is need to put pressures related to food supply security and consumer demands for affordable and higher quality food.

Concerns

a. The stakeholder informed that the soil testing usually takes long for results to be brought back from the Laboratory.
b. There is need to improve food storage.
c. There is the concern of undefined weather (climate change) where by people are not sure when the dry and wet season will come for proper planning in agriculture terms
d. There is an issue of tree cutting in the community where by cut trees are used for firewood, burning of charcoal which contributes to soil erosion
e. There is need to sensitize the community about projects which bring about development in an area because the local community are ignorant about development and it's not a priority.
f. The stake holder informed that there is an issue of insufficient water supply as many farmers rely on rain water for irrigation.so he advised that if the above project could improve on the water problem, it will boost agriculture
g. There is a problem of poor roads where by. Farmers fail to access roads easily which hinders marketing

Recommendation

a. The stakeholder emphasized the use of sustainable Clean Energy for example Bio-gas to combat the practice of deforestation/Tree cutting.
b. The stakeholder encouraged sensitization of the local community about the reliable and easy new methods of farming where by even the vulnerable people are able to benefit from the project.

c. The stakeholder shared that, issues of transportation should be solved after constructing better roads and provision of access routes
d. There is a need to construct water reserve tanks, valley dams and irrigation schemes to prevent the problem of insufficient water supply.

JBN Solutions that last	MUBENDE MINUTES		
	DATE		1st March ,2022
	MEETING	START	14:48
		END	15:05
	MINUTES BY		Drolence Nandagi

Meeting venue	Virtual interview between the consultant and the stakeholder of Mubende district
Subject of the Meeting	Stakeholder consultation

Introduction

The dialogue was between Senior Environment Officer and the Sociologist. The stakeholder welcomed the project and informed that there is availability of the construction block from grass roots that can accommodate the farmers and officials.

Fears

a. The stake holder expressed concern the need to consult and engage rural communities on the planning adaptation techniques, adaptation of technologies will costly usually after completion of the project.
b. He also revealed that community members know that most government projects take a lot of time and when officials leave sites, they do not come back to implement the projects.

Views

a. There is an issue of poor farming methods which need to be improved when the smart agriculture project starts.
b. Increased uptake as most stakeholders are willingly and ready to engage and serve.
c. There is need to promote coordinated actions by farmers, researchers, private sectors and civil society
d. Tree cutting by community members for firewood, charcoal for home consumption resulting to soil erosion.
e. There is an issue of using chemicals which emits the soil.
f. Insufficient water supply as many farmers rely on rain water for irrigation.
g. Waste disposal which degrades the soil.
h. The stakeholder informed that there is a concern of bush burning which degrades the soil
i. She explained that most agriculturists don't have enough land where to practice agriculture so the

resolution is to farm in wetlands which is against the government rules
Recommendation a. She emphasized use of sustainable Clean Energy for example Bio-gas to combat the practice of deforestation/Tree cutting. b. she encouraged sensitization of farmers about better methods of farming c. There is need to sensitize the community members about forest management, reafforestation and its uses to boost smart agriculture d. There is need to encourage enterprise diversification in order for the project to benefit people e. Improvement on chemical management.

JBN Solutions that last	Meeting with Environment officer of Nwoya district		
	DATE		17h February 2022
	MEETING	START	12:12
		END	12:30
	MINUTES BY		Drolence Nandagi.

Venue of meeting	Meeting chaired by Drolence and it was virtual interview from JBN Board room to the district environment officer Nwoya (0782687036)
Subject of the Meeting	Consultation of the stake holder about the Uganda Climate Smart Agriculture Transformation Project

The interview was between the sociologist and the district community officer of Nwoya district.

A. Agenda:

- Self-Introductions
- Introduction of the project
- Consultant's response
- Closure

B. Self-Introductions

Introductions were made by Drolence the consultant sociologist

The sociologist informed the environmental officer that we are preparing the safe guard documentation that is going to help us in preparing the Environmental and Social tools, ESMF, SEF and VMP for the proposed project.

The project is called Uganda Climate Smart Agriculture Transformation Project and ministry of Agriculture hired JBN consults to prepare the above tools for the smooth running of a project and it financed by the World Bank

C. Project brief

In Uganda Agriculture is mainly dependent on rain therefore the climate shocks will continue to have significant direct and indirect impacts on agricultural productivity and incomes so there is need to shift way land, water soil and other agricultural activities to build resilience to climatic shocks

The sociologist informed the key person how the project will support investments in technologies and market driven productivity in climate smart value chains which will contribute to reversing of climate change hence increase in agriculture productivity and household incomes

Some of the project components are promoting adoption of climate smart agriculture practices and value chains, strengthening climate smart agricultural research and seeds systems, strengthening agro climatic monitoring and information systems and project coordination management, monitoring and evaluation and

learning

D. Reactions from the District Environmental Officer (environmental and social concerns)

The environment officer informed the sociologist that he was very happy to hear about the above project and he was looking forward for it to be implemented and willing to put all the necessary input required.

The stakeholder informed that people in Nwoya district grow annual crops mainly and other few practices like mulching.

The stakeholder advised that it would be so important to do household mentoring and encourage empowerment of women as them being a major lead in the agricultural sector

He also informed that lately perennial crops are being grown but not so much on a large scale as it has just come up.

The following are the fears and how best they should be addressed

a. The stake holder expressed the fear of promoting unapplicable technology which may fail to promote commercialization and gave an example of masalai farmers in their area
b. He expressed the fear of insufficient market for the ready goods and emphasized that smart agriculture may help them and increase the quantity of crops grown but they might fail to improve on the market and crops will be just wasted.
c. There is fear of failure to be planned for in terms of facilitation for the key stakeholders therefore for better in out puts they need proper input.
d. He informed that when the project comes, it shouldn't be so expensive because the local people need free things for all people to benefit from it

Reaction from JBN consults

The sociologist appreciated the district environment officer for his time and the information shared will be of great use in the success of the project.

E. Meeting Closure

The Meeting was closed at 12:30pm

JBN Solutions that last	Meeting with agriculture officer of Yumbe district	
	DATE	7th February 2022
	MEETING START	15:00
	MEETING END	15:15
	MINUTES BY	Drolence Nandagi

Venue of meeting	Meeting chaired by the sociologist and it was phone interview from JBN Board room to Mr. Bakole Stephen of Yumbe the agriculture officer
Subject of the Meeting	Consultation of the stake holder about the Uganda Climate Smart Agriculture Transformation Project

The interview was between Drolence and Bakole Stephen the District agricultural officer

A. Agenda:

- Self-Introductions
- Introduction of the project
- Consultant's response
- Closure

Self-Introductions

Introductions were made by Drolence the consultant sociologist

The sociologist informed the DEO that we are preparing the safe guard documentation that is going to help us in preparing the Environmental and Social tools, ESMF, SEF and VMP for the proposed project.

The project is called Uganda Climate Smart Agriculture Transformation Project and ministry of Agriculture hired JBN consults to prepare the above tools for the smooth running of a project and it financed by the world bank

Project brief

In Uganda Agriculture is mainly dependent on rain therefore the climate shocks will continue to have significant direct and indirect impacts on agricultural productivity and incomes so there is need to shift way land, water soil and other agricultural activities to build resilience to climatic shocks

Drolence informed the key person how the project will support investments in technologies and market driven productivity in climate smart value chains which will contribute to reversing of climate change hence increase in agriculture productivity and household incomes

Some of the project components are promoting adoption of climate smart agriculture practices and value chains, strengthening climate smart agricultural research and seeds systems, Strengthening agro climatic monitoring and information systems and project coordination management, monitoring and evaluation and learning

Reaction from District Agriculture officer (environmental and social concerns)

The agriculture officer welcomed the project and informed that the locals are ready to give all the necessary support needed in order for the project to proceed.

He informed that their religion has its own crops so when the project comes, they expect them to just improve what they have instead of introducing completely new crops and breeds.

He informed that ministry of land should be put on board because of the problem of land encumbrances in

	MASAKA MINUTES		
	DATE		1st March ,2022
	MEETING	START	14:32
		END	14:56
	MINUTES BY		Ms Drolence Nandagi

their area.

He informed that the government should appoint the right and truthful people who will not embezzle government funds and fail the beautiful project.

The stakeholder informed that irrigation is a key in farming which must be put across because it is among the major concerns his people face and during the dry season that happens in January, February and March then August and September affect the community badly where by people lack food

The following are the fears and how best they should be addressed

- There is a fear of failure for the project to be centralized by ministry of agriculture entirely so he advised that the ministry should come on ground and monitor the whole process of smart agriculture project.
- He advised that the multi sectoral and pilot scheme approach should be applied
- He informed that when the project is implemented, the local government should be provided some logistics which will smoothen the process of the project

Reaction from JBN consults

The sociologist appreciated the District Agricultural Officer, Yumbe Agriculture Officer for the information shared

Meeting Closure

The Meeting was closed at 15:15pm

Meeting venue	Virtual
Subject of the Meeting	Stakeholder consultation

Introduction

The consultation was between the consultant and Dennis SSebinojjo the District Community Development Officer Masaka and he promised to work hand in hand for success of the project (0704580231)

Fears The stakeholder expressed a concern that there is need to increase demand for productivity, efficiency and sustainability to ensure food security hence improving farming systems which will benefit the agriculturists The stakeholder expressed the concern of failure to continue with smart agriculture project when the project implementors leave the project ground hence there is no sustainability of the project after officials leaving the ground She went ahead to inform that there is an issue of land conflicts among the community members which is a very big threat to the project and the community
Resolution 1.There is need to identify the true owner of the land with evidence of ownership through the local leaders 2.There is need to involve community members and district officials as well as the local leaders all the techniques used in implementing the project so that when ministry of agriculture leaves the ground the community members continue to benefit from the project 3.There is need to create ready market in agriculture.
Conclusion The stakeholder thanked the sociologist on behalf of the world bank and the ministry of agriculture for the good project that is coming up and they are ready to work hand in hand with the officials to implement the project The sociologist appreciated the stakeholder for the information shared and assured him to take all what discussed seriously.

JBN Solutions that last	MBALE DISTRICT MINUTES	
	DATE	9th February 2022
	MEETING START	12:18 am
	MEETING END	12:30 pm
	MINUTES BY	Drolence Nandagi

Venue of meeting	Meeting chaired by Drolence and it was phone interview from JBN Board room to Mrs. Nakayenze Anita the district environment officer of Mbale
Subject of the Meeting	Consultation of the stakeholder about the Uganda Climate Smart Agriculture Transformation Project

The interview was between the sociologist and environment officer Mbale

D. Agenda:

1. Self-Introductions
2. Introduction of the project
3. Consultants' response
4. Closure

E. Self-Introductions

Introductions were made by Drolence the consultant sociologist

The sociologist informed the stakeholder that we are preparing the safe guard documentation that is going to help us in preparing the Environmental and Social tools, ESMF, SEF and VMP for the proposed project.

The project is called Uganda Climate Smart Agriculture Transformation Project and ministry of Agriculture hired JBN consults to prepare the above tools for the smooth running of a project and it financed by the world bank

F. Project brief

In Uganda Agriculture is mainly dependent on rain therefore the climate shocks will continue to have significant direct and indirect impacts on agricultural productivity and incomes so there is need to shift way land, water soil and other agricultural activities to build resilience to climatic shocks

Drolence informed the key person how the project will support investments in technologies and market driven productivity in climate smart value chains which will contribute to reversing of climate change hence increase in agriculture productivity and household incomes

Some of the project components are promoting adoption of climate smart agriculture practices and value chains, strengthening climate smart agricultural research and seeds systems, strengthening agro climatic monitoring and information systems and project coordination management, monitoring and evaluation and learning

G. Reaction from key District Community environment officer (environmental and social concerns)

The stakeholder welcomed the above project and informed the sociologist that they were looking forward to seeing it implemented on behalf of the community

The stakeholder informed that Mbale has a land management issue which has to be a addressed before project implementation

The following are the fears and how best they should be addressed

a. The stakeholder they lack water for production which has slowed down agriculture in Mbale district.
b. She informed that there is need to use agro chemicals to avoid pollution
c. The stakeholder informed that demand for agriculture products is so high but due to lack of enough land for farming and grazing farmers get limited to use a very small piece of land which affects agriculture out put on a large scale.
d. She informed that there is need to plan for all farmers in Mbale instead of sampling a few of them so that everyone practicing agriculture can benefit from the project
e. The environment officer that local government lack logistics and they should be included in the budgeting hence allowing proper monitoring of the project

H. Reaction from JBN consults The sociologist informed the stakeholder that the project is in its planning phase and the information shared will be of great use in implementing the project.
I. Meeting Closure The Meeting was closed at 12:30pm

10.12 ANNEX 12: WASTE MANAGEMENT PLAN

This Annex provides generic guidance on management of wastes which will be generated by project activities. The subproject specific Waste Management Plans shall accordingly be customized to individual project activities based on their nature and scope, guided by the E&S Screening process provided in this ESMF. The main categories of wastes considered include: (a) solid waste, (b) sewage, and hazardous wastes generated by project activities.

(a). Debris (Pollution Control): Solid Waste Treatment and Disposal Program

The project will generate various types of solid wastes, but mostly i) paper and packaging, ii) Tin/Aluminium, iii) plastics, iv) food waste, v) glass waste. The Projects' Solid Waste management procedures are summarised in the Table 12.1 Solid Waste Treatment and Disposal Plan.

Solid waste requirements to be monitored:

- As a BMP, use only licensed waste transporters which includes having the disposal contract provide chain of custody forms proving that the final disposal volume and site are at an appropriate landfill.
- Keep records of the amount of each waste type generated and make attempts to minimize the amounts.

Table 12.1 Solid Waste Treatment and Disposal Plan during all Project Phases

Waste Category	Description	Waste Source	Bin colour	Waste Container description	Waste Treatment	Recycle Potential	Disposal Route and Site
Biodegradable (food) Waste	biodegradable, vegetable and organic waste	from kitchens	Green	leak proof GREEN plastic bin <20 litre capacity each	composted at on site wildlife proof compost pit	None	Onsite
Combustible Waste	paper, scrap wood, cardboard	project packaging	Red	leak proof RED plastic or metal bin < 200 litre drum capacity each	Incinerate in burn barrel that has ember reducer and bury ashes in food waste pit	low, minimizing its generation is important	and > 25 meter from any building or fuel storage
Plastic	Containers, packaging, scrap	project packaging	Blue	bag (100 kg)	compact, reduce, consolidated and prepare for transport	possible, find a recycler	To Approved landfill or recycler
Metal	cabling, metal	packaging	N/A	covered in pile	None	None	to Approved

							landfill
Glass (Recyclable)	wine, soda and spirit bottles	packaging	N/A	crates, bag	recycle or return for deposit	Yes	to recycler
Glass broken or non recyclable	Various beverage and food bottles	packaging	N/A	cardboard box (recycled from packaging)	remove food waste	None	to Approved landfill
Batteries and Items contaminated with oil	fuel filters, car parts, broken equipment	project vehicles and equipment	Yellow	3Cs: leak proof metal drum of 60 or 200 litres capacity and labelled	3Cs: possible kerosene rinse	None	Approved landfill or other facility licensed waste disposal
Mixed Earth and Vegetation	soil mixed with vegetation including roots	construction earthworks during site clearing and cut and fill	N/A	open pile keep surplus soil near excavation site for backfill and construction scar landscaping	use as much as possible for back fill, remaining to be used in landscaping	for backfill of foundations	Onsite

(b). Sewage Waste Treatment (septic tank) and Disposal (Soak pit)

Waterbody Protection Zone Considerations: No sanitation structures within the influence of the river and water logged areas. Maintain all waste and sanitation systems on the compound, ensure that they do not overflow or pollute any surroundings, especially the river area. This means making sure the project is in compliance with National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations, 2000**:**

Distance to Source of Contamination: The following distances from sources of pollution should always be taken into account and be an integral part of every **sewage treatment** system:

- 50 meters for pit preview, septic tanks, sewers.
- 100 meters from borehole latrines, seeping pits, trenches; and sub surface sewage disposal fields.
- 150 meters from cesspools (septic tanks), sanitary land field areas and graves.

In addition to the above minimum distances, the following precautions must also be observed:

- Domestic livestock and other animals should be kept away from the intake by fencing the area of a minimum radius of 50 meters from the installation.
- Defecation and urination around the intake should be completely prohibited, by law.
- Drainage and run off waters should be led away from intakes.

- The water source should be guarded against inundation by the flooding of nearby rivers.
- Soil erosion should be prevented by reforestation and other methods.
- Algal growth should be prevented by draining swamps and pools around the intake or reservoir.

Sewage System Criteria: No discharge policy; for all effluent discharged in underground septic or infiltration systems. Make all attempts to decrease the amount of wastewater being produced via effective water conservation (low flush toilets, immediate hot water delivery, high dispersal spray for showers, etc.) No oxidation ponds. Ventilated Improved Pit latrines (VIP) are usually the most appropriate toilets for remote areas that do not have adequate amounts of available water supply. Undertake appropriate infiltration tests in areas where soak way systems are located. Avoid the waterlogged areas bordering the river zone.

Sewage water effluent management: MAAIF shall ensure use of standard designs for sewage treatment and disposal. Therefore, the most important aspect of properly functioning sanitation systems is to monitor all the systems on a regular basis.

Effluent discharged from the water treatment works should conform to these regulations. MAAIF and the Contractor/s for this project will apply to DWD for permits for discharging effluents from the WTP and construction activities, respectively, to the environment.

Table 12.2: Uganda National Standards for Discharge of Effluent

Parameters	Units	Maximum Permissible Limit
Active ingredients (each)	mg/L	0.05
Adsorbable Organic Halides	mg/L	0.5
Benzene	mg/L	0.05
Benzo (a) pyrene	mg/L	0.05
Detergents	mg/L	15
Dioxins/Furans (Total)	mg/L	0.00005
Ethylbenzene	mg/L	0.05
Fats Oils & Grease	mg/L	10
Nitro organic Compounds (each)	mg/L	0.05
Organochlorine pesticides each)	mg/L	0.05
Organophosphorus pesticides (each)	mg/L	0.05
Phenols	mg/L	0.5
Phenoxy Compounds (each)	mg/L	0.05
Polycyclic Aromatic Hydrocarbons (each)	mg/L	0.05
Pyrethroids (each)	mg/L	0.05
Toluene	mg/L	0.05L
Total chlorocarbons	mg/L	0.05
Total Hydrocarbons	mg/L	0.05
Total Organic Carbon	mg/L	50
Trichloroethane	mg/L	0.05
Trichloroethylene	mg/L	0.05
Vinyl Chloride	mg/L	0.05
Xylene	mg/L	0.05

Source: The National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations, 2020.

Table 12.3 Summary of Environmental Monitoring Schedules for Sewage and Solid Waste Management

Monitor Item	Monitor Location	Monitor Purpose	Monitor Indicators	Responsible Monitor	Evaluation frequency
Solid Waste Treatment and Disposal					
Waste segregation	Waste Handling Stations	Ensure waste segregated according to Camp Solid Waste Treatment and Disposal Procedures	waste handling stations are used to temporarily store waste to be removed from collection points	Contractor/ maintenance staff	Daily
		Ensure that proof of final disposal site is provided	**DOCUMENTS:** Solid Waste Chain of Custody Form III		each time waste is transferred
Biodegradable waste pit	backyard	ensure pit is wildlife proof and cover is functioning	path to waste pit clear of waste scraps		Daily
			no offensive odours or disposal of non-biodegradable waste		
Sewage Treatment and Disposal					
Septic tank	septic tanks	ensure the septic tank- is functioning properly	no signs of overflow or malfunction	Contractor/ maintenance staff	Daily
			tank contains layer of liquid cover (not dried out)		
			odour from tank is earth like, not offensive		
			outlet not clogged, grey water effluent flows to infiltration system		
			PPE required: hand gloves and gumboots		
			DOCUMENTS: Inspection report is completed and filed		
Soak pits	soak pit	ensure the soak	no signs of		Weekly or when

		pit is functioning properly	overflow or malfunction		incidents occur
			DOCUMENTS: Inspection report is completed and filed		
	laundry effluent	early detection of overflow issues	no signs of overflow or malfunction	Laundry staff	Daily
Kitchen grease trap	Kitchen	ensure grease and food waste do not clog infiltration system	no signs of overflow or malfunction of grease trap	Kitchen staff	Daily
			DOCUMENTS: signage at sinks reminding staff to check grease trap		

(c) Hazardous Substances Management

This plan mitigates potential impacts related to fuel handling and storage on site. The following basic guidelines for the handling must be adapted using following the "3C's concept which is summarized below:

Cover: Cover and protect containers with hazardous materials from wind, fire, rain, sun and the elements. When rain comes into contact with these materials, it can spread spills vertically and horizontally on the ground. Cover to be fireproof and well ventilated.

Contain: All storage containers must be leak proof, in good condition and stored on protected bunded ground, which can contain the volume of any spill. Avoid any horizontal storage of fuel drums. Have properly functioning automatic dispensing units for each fuel. All work that involves oil, lubricants, fuels or toxic substances must take place on protected ground or surfaces. Sufficient grease pans or oil sumps must effectively hold all fluids that may leak during construction or vehicle service.

Control: Control by recording all dispensing and disposal volumes/weights of all products; new and used. Keep records of consumption rates of the various equipment using fuels. Maintain a fire break around the camp/offices as well as secondary fire breaks around flammable materials. Check for gas leaks. All used oils, fuels and other toxic/hazardous wastes must be put in a leak proof drum and be appropriately disposed of at designated sites. All contaminated ground or resources must be cleaned and neutralized.

Hazardous waste from both the construction and operation and maintenance will be mostly from used oil from vehicle service and fuel storage. Although the project tends to have limited potential for significant pollution issues, must avoid events that might lead to pollution of surrounding land, air and drainage.

The project creates some potentially dangerous situations (usually caused by heavy machinery, equipment and vehicles). Servicing heavy equipment, machinery and vehicles have the potential to contaminate soil if used oil and lubricants spill. The above 3 Cs program should follow all manufacturers' recommendations of application, use and disposal of the various hazardous materials at the project.

Hydrocarbon fuel storage and dispensing

The fuels stored on site need to be housed and dispensed properly. Following simple guidelines of the 3Cs: cover, contain and control in which fuel and oil containers are in a covered area on protected bunded ground with non-leaking dispensing systems. Following three basic rules, "3C's" can ensure that fuel and other hazardous materials are handled properly, avoiding spills, soil contamination and exposure to staff. The necessary safety placards will be displayed on containers (in English and Local Language) and have MSDS sheets on file for all chemicals used or stored on site.

All wastes collected for disposal shall be handled by NEMA licensed Waste Transporters and Treatment/ Disposal Facilities and/or sites/Landfills. In addition, Contractors shall be required to obtain from NEMA a License for storage of waste generated in accordance with the Waste Management Regulations and a License for storage and dispensing of hydrocarbons from Ministry of Energy and Mineral Development (Petroleum Supply Department).

Table 12.4 Summary of Environmental Monitoring Schedules for Hazardous Substances

Monitor Item	Monitor Location	Monitor Purpose	Monitor Indicators	Responsible Monitor	Evaluation frequency
Fuel storage	back of house	Ensure dispensing is controlled and no ground contamination occurs. Use 3Cs principles.	clean floor in storage room	Contractor – staff incharge of fuelling	Daily
			dispensing and spill respond procedures properly posted on wall		
			Containers properly labelled and not leaking		
			DOCUMENTS: Fuel dispensing log, incident record is up to date. **Warning SIGNS:** No Smoking and MSDS Labels.		
Generator	Generator room	ensure safety measures are being followed	emission muffler is functioning	Contractor	Daily
			check operating times and fuel consumption		
			check all safety gear and warning signs are present		

			PPE required: ear plugs **DOCUMENTS:** Generator Operation and Maintenance Log. **Warning SIGNS:** No Smoking and MSDS Labels.	Maintenance staff	
Chemical stores	Stores	ensure proper storage and handling of dangerous chemicals	check that all containers are properly labelled ensure no spills or leaks occur **DOCUMENTS:** Inventory/Stock list, MSDS sheets & spill incident reports filed	Contractor Staff incharge of store	Daily

(d) Disposal of Expired Pesticides and Empty Containers

A collection and disposal system and cleaning of pesticide containers shall be put in place by MAAIF under the UCSATP. Involving the distributors and Local Governments in the collection and disposal of empty containers and obsolete stocks of pesticides is paramount. There is need for a program to provide farmers and municipalities with a management system for disposing of empty pesticide containers. There needs to be collection centers where farmers can take empty and rinse non-returnable plastic and metal pesticide containers across the Districts for safe handling and disposal. The safe and environmentally sound management of containers at the end of their life is an external cost to the marketing and use of pesticide products. The proposed scheme will require adequate funding to support all its operations and it is the responsibility of the administrative body to develop:

- the logistical infrastructure to collect the empty containers;
- the processes to treat the containers to facilitate easier handling (e.g. shredding or baling) and to separate the materials into fractions according to the intended recycling or disposal route; and
- the appropriate technologies for the sound environmental management of the materials, or establish contracts with external organizations to undertake the recycling and disposal.

For the scheme to be effective in attracting back empty containers, it must be easy for the users to return them to the scheme. Designing the appropriate infrastructure for logistics is crucial. Reverse distribution system could be used that involves using the infrastructure that has been established to distribute products to users as a mechanism to receive material back from them or creating Network of collection centers. As an alternative to the reverse distribution model is one where the users are able to deliver empty containers themselves. The location, opening times and staffing of the collection

centers must be convenient to users. Inconvenient locations and opening times will discourage users from returning containers. The collection centers may be used to undertake segregation of container materials and pre-treatment such as baling and shredding to increase the density and improve the efficiency of the onward transportation. Shredding may also improve the value of the materials for recycling. ***Under the UCSATP, the collection of empty containers and obsolete pesticides will be a direct responsibility of the Local Government Authorities and MAAIF will handle all disposal issues.***

Utilization of Luwero Industries Incinerator

One incinerator that meets the required pesticide incineration standards is Luwero Industries located at the Nakasongola Military Base (Luweero Industries) but its specifications were not ascertained due to issues of access to a military facility. ***NEMA licensed Waste Disposal service providers that have access to the incineration facilities at Nakasongola and MAAIF will work with these licensed service providers.***