



**MINISTRY OF AGRICULTURE AND LIVESTOCK
DEVELOPMENT
ENVIRONMENTAL AND SOCIAL MANAGEMENT
FRAMEWORK (ESMF)**

FOR

**KENYA - FOOD SYSTEMS RESILIENCE PROJECT
(FSRP)**

SEPTEMBER 2023

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ACRONYMS

ASTGS	Agricultural Sector Transformation and Growth Strategy
ASALs	Arid and Semi- Arid Lands
AIDs	Acquired Immunodeficiency Syndrome
ASU	Agriculture Statistics Unit
AWP&B	Annual Work Plan and Budget
ATO	Agriculture Transformation Office
BoQ	Bill of Quantity
BD	Biological Diversity
BP	Bank Procedures
CAJ	Commission on Administration of Justice
CAPs	Community Action Plans
CASU	County Agricultural Statistics Unit
CBD	Convention on Biodiversity
CDE	County Director of Environment
CDD	Community Driven Development
CFA	Community Forest Association
CO ₂	Carbon Dioxide
CDVS	County Director of Veterinary Services
CGMs	County Grievance Management Committee
CDDC	Community Driven Development Committee
CESCO	County Environmental Safeguards Compliance officer
CIGs	Common Interest Groups
CIDP	County Integrated Development Plan
CO	Chief Officer
COP 21	21st Conference of Parties
CoG	Council of Governors
CERC	Contingent Emergency Response Component
CECM	County Executive Committee Member
CEC	County Environmental Committee
CPCU	County Project Coordinating Unit
CPC	County Project Coordinator
CPR	Comprehensive Project Report
CS	Cabinet Secretary
CSA	Climate Smart Agriculture
CSOs	Civil Society Organizations
CTAC	County Technical Advisory Committee
CPSC	County Project Steering Committee
CSSCO	County Social Safeguards Compliance Officer
CoC	Code of Conduct
DAT	Disruptive Agriculture Technologies

DoSHS	Directorate of Occupational Health and Safety Services
DUC	Dam Under Construction
EA	Environmental Assessment
EDPs	Enterprise Development Plans
EDPG	Enterprise Development Plan Grant
EHS	Environmental, Health and Safety
EHSGs	World Bank Group Environmental, Health and Safety Guidelines
EIA	Environmental Impact Assessment
EA	Environmental Audit
ES	Environmental and Social
EMCA	Environment Management and Coordination Act
ERP	Emergency Response Plan
ELRP	Emergency Locust Response Program
ESA	Environmental and Social Assessment
ESF	Environmental and Social Framework
ESCP	Environmental and Social Commitment Plan
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental and Social Standard
FAO	Food Agricultural Organization
FI	Financial Intermediary
FLID	Farmer Led Irrigation Development
FPIC	Free Prior and Informed Consent
FOSA	Front Office Service Activity
FPOs	Farmer Producer Organization
FFS	Farmer Field School
FSRP	Food Systems Resilience Program
GBV	Gender Based Violence
GHG	Greenhouse Gas
GDP	Gross Domestic Product
GIIP	Good International Industry Practice
GM	Grievance Mechanism
GRM	Grievance Redress Mechanism
GMM	Grievance Management Mechanism
GoK	Government of Kenya
GRC	Grievance Redress Committee
GRS	Grievance Redress Service
HR	Human Resource
HIV	Human Immunodeficiency Virus
ICT	Information Communication Technology

IDA	International Development Association
IFC	International Finance Corporation
IGRTC	Intergovernmental Relations Technical Committee
IPMP	Integrated Pest Management Plan
ILO	International Labour Organization
IP	Indigenous People
IPPC	International Plant Protection Convention
IRM-OM	Immediate Response Mechanism Operation Manual
JASSCOM	Joint Agriculture Sector Steering Committee
IPMF	Integrated Pest Management Framework
JET	Jobs and Economic Transformation
KAOP	Kenya Agricultural Observatory Platform
KALRO	Kenya Agricultural and Livestock Research Organization
KCSAP	Kenya Climate Smart Agriculture Project
KEBS	Kenya Bureau of Standards
KCB	Kenya Commercial Bank
KFS	Kenya Forest Services
KEMFSED	Kenya Marine Fisheries and Socio-Economic Development
KEPSA	Kenya Private Sector Alliance
KIAMIS	Kenya Integrated Agricultural Management Information System
KNCHR	Kenya National Commission on Human Rights
KWS	Kenya Wildlife Services
LGBTQ	Lesbians, Gay, Bisexual Transgender and Queer
LMP	Labor Management Procedures
M&E	Monitoring and Evaluation
MoA&LD	Ministry of Agriculture & Livestock Development
MIS	Management Information System
MSDS	Materials Safety Data Sheets
MTP	Mid Term Plan
MPA	Multiphase Programmatic Approach
NARIGP	National Agriculture and Rural Inclusive Growth Project
NECC	National Environment Complaints Committee
NASEP	National Agricultural Sector Extension Policy
NEMA	National Environment Management Authority
NET	National Environmental Tribunal
NGEC	National Gender Equality Commission
NGO	Non-Governmental Organization
NLC	National Land Commission
NGMC	National Grievance Management Committee
NESCS	National Environmental Safeguards and Compliance Specialist
NSSCS	National Social Safeguards and Compliance Specialist
NPCU	National Project Coordination Unit

NPC	National Project Coordinator
NPSC	National Project Steering Committee
NRM	Natural Resource Management
NT	National Treasury
NTAC	National Technical Advisory Committee
OHS	Occupational Health and Safety
OP	Operational Policy
O&M	Operation and Maintenance
OSHA	Occupational Safety and Health Act
PAD	Project Appraisal Document
PAPs	Project Affected Persons
PAHs	Project Affected Households
PCC	Public Complaint Committee
PDO	Project Development Objective
PICD	Participatory Integrated Community Development
PMP	Pest Management Plan
PMC	Project Management Committee
PPE	Personal Protective Equipment
PPP	Public Private Partnership
RAP	Resettlement Action Plan
RCA	Root Cause Analysis
R&D	Research and Development
RPLRP	Regional Pastoral Livelihood Resilience Project
RPF	Resettlement Policy Framework
SAIC	Social Accountability and Integrity Committee
SACCOs	Savings and Credit Cooperative Organizations
SDG	Sustainable Development Goals
SCTT	Sub County Technical Team
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
SEAH	Sexual Exploitation, Abuse and Harassment
SEP	Stakeholder Engagement Plan
SESA	Strategic Environmental and Social Assessment
SME	Small and Micro Enterprises
STDs	Sexually Transmitted Diseases
SPR	Summary Project Report
STIs	Sexually Transmitted Infections
SOGI	Sexual Orientation and Gender Identity
SPS	Sanitary and Phytosanitary
SSAHUTLCs	Sub Saharan Historically Underserved Tradition Local Communities
TAC	Technical Advisory Committee
TIMPs	Technologies Innovations and Management Practices

UXO	Unexploded Ordnance
UNFCCC	United Nations Framework Convention on Climate Change
VCEI	Value Chain Ecosystem Investments
VC	Value Chain
VCG	Value Chain Grant
VCUMG	Value Chain Upgrading Matching Grant
VMGs	Vulnerable and Marginalized Groups
VMGF	Vulnerable and Marginalized Group Framework
WB	World Bank
WRUA	Water Resource Users Association
WHO	World Health Organization
WSH	Workplace Sexual Harassment

EXECUTIVE SUMMARY

This Environmental and Social Management Framework (ESMF) has been prepared for the Food Systems Resilient Project (FSRP) which is a World Bank financed project implemented by the State Department for Crop Development in the Ministry of Agriculture and Livestock Development (MoA&LD).

The Project Development Objective of FSRP is to increase resilience of food systems and the country’s preparedness for food insecurity in project areas. The project has six (6) components; Each component is divided into sub components summarized in the table I below.

Table I: Summary of projects components

1.0	Component I: (Re-) Building Resilient Agricultural Production Capacity
1.1	<i>Sub-component 1.1 Data and Digital Agriculture Systems at the National and County Levels</i>
	<ul style="list-style-type: none"> • Support the development of national and county agricultural information systems for adaptation planning and resilience building • Support Agriculture Statistics Unit (ASU) in the Agriculture Ministry and strengthen the 47 County agricultural Statistical units (CASUs) • Build on the existing Big data platform at the Kenya Agriculture & Livestock Research Organization • Invest on scaling up the existing digital farmer registry farmers under the Big Data platform and the strengthen the existing KIAMIS • Monitor animal and plant health data (such as pest and animal disease outbreaks and management) • Support implementation of Agriculture insurance program
1.2	<i>Sub-component 1.2 Climate-Smart Agriculture Technologies and Services</i>
	<ul style="list-style-type: none"> • Support the development and delivery of climate-smart technologies (CST) including seed systems and gender sensitive technologies; • Support to KALRO to strengthen appropriate seed systems (both crop and livestock) towards building resilience and enhancing productivity; • Promote the development of a farmer field school (FFS) curriculum in which training sessions will be conducted “on farmers own farms,” • Support national and regional institutional capacities to prevent and respond to crop and livestock disease outbreaks. • Support promotion of climate smart seeds (crops) and breeds (livestock) that are climate resilient and farming practices and services that support soil health and water conservation, carbon sequestration, and GHG mitigation.

1.3	Sub-component 1.3: Community Engagement and Technology Transfer including through digitalization
	<ul style="list-style-type: none"> • Support Mobilization of farmers, agro-pastoralists and pastoralists into common interest groups (CIGs) as platforms for collective capacity building, with high emphasis on inclusion of women and youth smallholder farmers; • Support mobilization of new Community-Driven Development Committees (CDDCs) and Common Interest Groups (CIGs) as well as the strengthening of the existing CDDCs and CIGs Support Scaling up a hybrid extension architecture consisting of county, sub county and ward level technical teams and lead farmers (best practicing farmers from within the CIGs). • Support the scaling up Sustainable landscapes for resilient food systems of partnership with Disruptive Agriculture Technology (DAT) service providers under the existing One Million Farmer Platform including mobilization, technical assistance, training and capacity building and digital equipment. • Develop agripreneurs that will double up as both the last mile extension service providers and as the human touch point for “bundling” the service.
2.0	Component 2: Supporting the Sustainable Development of Natural Resources for Resilient Agricultural Landscapes
2.1	Sub-component 2.1: Enhancing water availability for crop and livestock:
	<ul style="list-style-type: none"> • Support water harvesting interventions, development of efficient irrigation and other water use systems, building drought adaptive capacity and climate resilience. • Support farmers to develop and adopt a range of technologies related to water use efficiency that draw on multiple types of equipment and approaches, including drip irrigation, solar pumps, cover, perennial and deep-rooted crops, crop rotation, and reduced tillage, and supporting the efficient use and conservation of productive ground and surface water resources. Support construction or rehabilitation of small farm ponds, multipurpose water pans, and other interventions designed to improve water availability and recharge.
2.2	Sub-component 2.2 Strengthening rangeland management for crop and livestock
	<ul style="list-style-type: none"> • Support sustainable land management (including restoration through soil and water interventions; watershed management/rehabilitation; landscape approach and interventions focused on Land fertility improvement); • Support towards demarcation and restoration of livestock migration routes and common grazing lands; • Development of strategic livestock feed reserves (feed and fodder infrastructure and county-production of hay and fodder).

	<ul style="list-style-type: none"> • Support interventions related to animal health (infrastructure for disease surveillance and vaccination, holding grounds, and quarantine yards). • Support to crop-livestock integration including seed multiplication and bulking (crops and pasture) and improved breeding practices.
3.0	Component 3: Getting to Market:
3.1	<i>Sub-component 3.1 Strengthening of Farmer Producer Organizations</i>
	<ul style="list-style-type: none"> • Support building capacity of sustainable and inclusive Farmer Producer Organization (FPOs) as anchor institutions that will facilitate aggregation, quality control and marketing of agriculture and livestock produce and products; • Support preparation of inclusion grants to FPOs and bankable business plans and provision of small-scale seed capital and matching grants to FPOs and other SMEs and cooperatives, as well as capital investment support to build their capacity for value addition; • Support for long term sustainable formal financing to FPOs and other value chain stakeholders to catalyze opportunities for job creation, and inclusion of women and small-scale producers. • Support assessments of domestic, regional, and global market opportunities, and value chain analyses and development plans and implementation of climate-informed Enterprise Development Plans (EDPs) • Support subscription to climate information services and provision of real-time agrometeorological advisory and decision-support services to members of these EDPs; and training on reducing contamination and GHG emissions in livestock rearing.
3.2	<i>Sub-component 3.2 Market Infrastructure and Enterprise Development</i>
	<ul style="list-style-type: none"> • Support investments in market infrastructure that focus on enabling improved handling of crop and livestock produce, and adherence to sanitary and phytosanitary (SPS) standards (Cold chain infrastructure for livestock produce, grading sorting and processing facilities for crop produce). • Support infrastructure that reduces post-harvest losses, and logistics related investments including up-grading of feeder roads to improve market access • Support infrastructure investments at market level in the PPP mode to the extent possible and focus on creating new jobs for local communities
3.3	<i>Sub-component 3.3 Creditworthiness of Crop and Livestock Farmers</i>
	<ul style="list-style-type: none"> • Capacity building and training of agri-food producers and other value chain actors to prepare viable business and investment plans; • Training and engagement of financial institutions and service providers to increase participation in the agri-food sector;

	<ul style="list-style-type: none"> • Provide training to enhance financial management capacity of CIG member's farmers, SACCOs/CDDCs and FPOs; • Development of value chain-specific credit information; (viii) the development of agricultural insurance products to mitigate against price and climate risk; • Development and deployment of digital financial services to reduce information asymmetry along the value chain and increase financial inclusion;
4.0	Component 4: Promoting a Greater Focus on Food Systems Resilience in National and Regional Policy making
4.1	<i>Sub-component 4.1: Prioritization of Food System Resilience in Public Policy and spending</i>
	<ul style="list-style-type: none"> • support efforts/initiatives to elevate food systems resilience considerations in public institutions, policies, and spending in Kenya • Mainstreaming of food resilience objectives in Kenya's strategic vision and priorities; • Support the management of food stocks or reserves with a focus on building innovative systems for procuring, importing, storing, and monitoring those stocks, while facilitating interagency coordination and creating employment opportunities • Support the inclusion of a resilience focus in M&E frameworks as well as the systematic capture of gender-disaggregated data relating to agricultural development activities
4.2	<i>Sub-component 4.2: Institutional Capacity for the Implementation of Resilience-Enhancing Policies:</i>
	<ul style="list-style-type: none"> • Build the capacity of the Ministry of Agriculture and Livestock (MoA&LD) capacity to implement resilience-focused policies. • Support technical assistance for policy analysis and harmonization through analytical work, needs assessments, and policy dialogue or policy harmonization activities in key areas that affect R&D at the national and regional levels; • Capacity building for improved institutional administration and performance management systems • Strengthen resilience-focused analytical studies, specialized technical assistance, and training of national and regional experts, communication, and knowledge management.
5.	Component 5: Contingent Emergency Response Component
	<ul style="list-style-type: none"> • Financing eligible expenditures in the event of an emergency precipitated by a disaster • Funding to reduce damage to productive infrastructure, ensure business

	<p>continuity, and speed up recovery</p> <ul style="list-style-type: none"> • In the event of CERC activation, funds from other project components may be reallocated to finance immediate response activities as needed.
6	Component 6: Project Coordination and Management
6.1	Sub Component 6.1 : Project Coordination
	<ul style="list-style-type: none"> • Finance the costs of the national level project coordination unit (NPCU), including salaries of contract staff, and operations and maintenance (O&M) costs, such as office space rental, fuel and spare parts of vehicles, office equipment, audits and furniture, among others. • Finance the costs of project supervision and oversight provided by the National Project Steering Committee (NPSC). • Support the oversight and inter-governmental coordination provided by the Joint Agriculture Sector Steering Committee (JASSCOM). • Support the Council of County Governors' (COG) structures for Agriculture including Committee on Agriculture. • Support Caucus of County Executive Committee Members (CECMs) for Agriculture, and Agriculture Secretariat. • Support the Agriculture Transformation Office and other project administration costs.
6.2	Sub Component 6.2: Project Monitoring, learning, knowledge management, and Cross cutting Issues
	<ul style="list-style-type: none"> • Finance activities related to communication with all stakeholders including project beneficiaries, all government officials that are part of the project implementation • Finance Environmental and Social Standards implementation, monitoring and compliance • Finance activities related to routine M&E functions (e.g., data collection, analysis, and reporting) and development of an ICT-based Agricultural Information Platform for sharing information

Project Scope

The project will be implemented in 13 Counties which includes Baringo, Marsabit, Wajir, Mandera, Garisa, Tana River, Lamu, West Pokot, Laikipia, Isiolo, Turkana, Samburu and Elgeyo Marakwet.

Project Beneficiaries

The project will support 350,000 crop and livestock farmers. It is envisaged that the crop and livestock farmers supported under the project will largely include small scale farmers. Furthermore, the project will benefit many value chain actors at various levels including

extension workers, aggregators, logistics support providers and Small and Medium-sized Enterprises (SMEs) operating within the value chain. It is expected that nearly 5,000 jobs will be created through multiple pathways including expansion of Farmer producer Organization (FPO) operations, expansion of anchor off-takers and SME operations, expansion of agri-tech provider operations, development of agri-prenuers and expansion of urban agri-business linkages. In addition, the project takes into consideration the indigenous People in the 13 project counties as detailed in section 36 of this document.

ESMF Purpose, Scope, Objectives and Methodology

Purpose

The purpose of this framework is to guide the management of foreseen environmental and social risks and impacts as per World Bank's Environmental and Social Framework.

The ESMF is an umbrella instrument, applicable to all project activities. The framework sets out the principles, rules, guidelines, and procedures for screening proposed project activities based on their expected environmental and social impacts. The ESMF also establishes the principles and procedures to be followed when undertaking consultations and to implement a grievance mechanism as required; a monitoring and evaluation system; and a reporting system. It establishes the institutional responsibilities for implementation, supervision, monitoring and evaluation and reporting on environmental and social risk management throughout all phases of the project (design, construction, and operation).

Scope

This ESMF guides the project implementers to make sure that the E&S risks *associated with the investments* financed under this project are manageable . Therefore, the ESMF will be used for small-scale subprojects identified for having anticipated environmental and social risks. These risks are expected to be addressed satisfactorily through available mitigation and management measures implemented at the community level with necessary national and county level support In addition, implementation of the Food Systems Resilience Project, the coordination team should engage environmental and social experts of the program to ensure that the proposed subprojects will remain in moderate and substantial risks level and hence manageable under the ESMF.

ESMF objectives

- I. Establishing clear procedures and methodologies for the environmental and social assessment, review, approval and implementation of sub projects, producer organization among other investments to be financed under the Food Systems Resilience Project.
- II. Identification of specific roles and responsibilities, and outlining the necessary stakeholders' engagement and reporting procedures for managing and monitoring environmental and social risks related to subprojects.
- III. Determining the training, capacity strengthening and technical support needed to implement the provisions of the ESMF.

- IV. Establishing project resources required to implement the ESMF provisions.
- V. Providing lessons learned for application to related future projects.

Methodology

This entailed a review of the existing baseline information and literature in the 13 project Counties to gain further insight and get a deeper understanding of the key aspects of the project. A desk review was further conducted on the relevant policy documents, legislations and guidelines as well as International Conventions. Some of the key policy documents include FSRP project appraisal document, World Bank Environmental and Social Framework. The key legislation includes the Constitution of Kenya 2010 and the Environmental Management and Coordination Act 1999. The key conventions include the United Nations Convention of Biological Diversity (1992) and the United Nations Framework Convention on Climate Change, UNFCCC(1992). The biophysical environment and socio-economic conditions of the 13 project Counties as diverse as detailed in Table 6 to 16.

Policy, Legal and Institutional Frameworks

A comparative analysis has been made between relevant regulations of the Government of Kenya (GoK) and the applicable World Bank’s Environmental and Social Standards (ESS) governing the project. The following key policy, legal instruments and international conventions that apply to the project were reviewed since they provide guidance when implementing sub projects described in component 1, 2, 3, 4 and 5.

Table 2: Policy Framework

Policy	Relevance
The Agricultural Transformation and Growth Strategy 2019-2029	The Strategy envisions a food-secure and prosperous nation through its three anchors namely increase small-scale farmer, pastoralist and fisherfolk incomes, increase the agricultural output and value add and increase household food resilience. FSRP interventions are geared towards a food secure nation through resilience building hence supports the Agriculture Sector Transformation and Growth Strategy (ASTGS) that envisions
The Kenya Climate Smart Agriculture Strategy-2017-2026	The strategy sets out to reduce the community's vulnerability to impacts of climatic change, enhance climatic resilience of agricultural systems and adaptive capacity, and minimize Greenhouse gas emissions for enhanced food and nutritional security and improved livelihoods. The project aims at building community’s resilience and adaptive capacity to climate change through supporting.
The National Productivity Policy No. 3 of 2013	The policy responds to low productivity, directs corrective measures, and supports technological change and innovations. The project will Support institutional capacity for the implementation of resilience enhancing policies.

The National Agricultural Sector Extension Policy No, 04 of 2011	The policy spells out modalities for effective management and organization of agricultural extension in a pluralistic system where both public and private service providers are active participants. FSRP Support Scaling up a hybrid extension architecture consisting of county, sub county and ward level technical teams and lead farmers. It also promotes collaboration with stakeholders in its intervention such National Environmental Management Authority (NEMA), Kenya Forest Service (KFS), Kenya Wildlife Service (KWS), Water Resource Users Authority(WRUA) etc
Kenya Youth Development Policy 2019	The policy promotes the creation of jobs and income generating opportunities for youth and facilitates building of digital skills to leverage the youth's affinity to technology: The project will ensure involvement of youth in the implementation of component 1.1 Data and Digital Agriculture Systems at the National and County Levels.
National Gender and Development Policy 2019	The policy provides an avenue for gender mainstreaming and empowerment of women across all sectors in order to generate efficient and equitable development outcomes. The project will ensure adherence to this policy within the key institutions including Common Interest Groups (CIGs), Community Driven Development Committee (CDDCs), FPOs and WRUAs.
National Food and Nutrition Security Policy 2011	The policy aims at achieving safe food in sufficient quantity and quality to satisfy the nutritional needs of the people. The Project is supporting the policy in all aspects of Building Resilient Agricultural Production Capacity, Supporting the Sustainable Development of Natural Resources for Resilient Agricultural Landscapes including Contingent Emergency Response as proposed under component 5.

Table 3: Legal Framework

Constitution of Kenya (2010)	The constitution has specific provisions for ensuring sustainable and productive management of land resources; transparent and cost-effective administration of land; and sound conservation and protection of ecologically sensitive areas. Article 21 (3) provides that all State organs and all public officers have the duty to address the needs of vulnerable groups within society. Article 42 States that every person has the right to a clean and healthy environment. Article 69 Provides the obligation of the state in respect to the environment. Section 70 provides for the enforcement of environmental rights.
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Water Act (No. 43) 2016	The act provides for the management of water resources at national and county level. Article 40(4) provides an application for a permit and, where applicable EIA be carried out and license obtained to abstract water or carry out activities that may have adverse impacts on the quantity or quality of water. Water related interventions in FSRP should comply with the provisions of this Act
Seeds and Plants Variety Act 2012	The act regulates transactions in seeds, including provision for the testing and certification of seeds. The project will support the development of climate-smart seed systems by building the capacity of farmers to undertake seed production and supporting Kenya Agricultural and Livestock Research Organizations (KALRO) seed unit, thus reducing import dependency and strengthening local markets.
Plant protection ACT (cap 324),2012	The Act provides for the prevention of the introduction and diseases destructive to plants. FSRP will give farm inputs including seeds that are free of diseases.
The Pest Control Products Act 1982 (Revised 2012)	The Act regulates the importation, exportation, manufacture, distribution and use of products used for the control of pests and of the organic function of plants and animals and for connected purposes. The Project will ensure that supported farmers use products accredited by the Pests Control and Products Board (PCPB).
Public health Act (Cap, 242) 2012	This Act controls the activities of the project with regard to human health and ensures that the health of the workers and surrounding community is not jeopardized by the activities of the project.
Occupational Health and Safety Act 2007	The Act provides for the safety and welfare of workers and all persons lawfully present at work places/sites. The project will comply with the provisions of this Act when implementing all the investments.
Employment Act 2019	This Act declares and defines the fundamental rights of employees; minimum terms and conditions of employment; to provide basic conditions of employment of employees; and to regulate the employment of children, among other rights. The project interventions may require hiring of labour, terms of engagement will be guided by the Act.
Wildlife conservation and management Act 2013	Provides for the protection, conservation, sustainable use and management of wildlife in Kenya. The project interventions bordering wildlife dispersal areas in community lands shall comply to the Act.

Agricultural, Fisheries and Food Authority Act No. 13 of 2013	Provides for the establishment of Agriculture, Fisheries and Food Authority, the administration of matters of Agriculture and the preservation, utilization and development of agricultural land and related matters. It makes provision for the respective roles of the national and county governments in agriculture. The project interventions shall adhere to the provision of this Act.
Crop protection Act No.16 of 2013	Applies to all scheduled crops in both private and community agricultural lands.
Community Land Act (No.34) 2016	The Act recognizes communal and customary land rights. The project interventions implemented in such lands shall comply with the provisions of this Act.
Persons with disabilities Act, 2014	This Act of Parliament prohibits discrimination in employment for persons with a disability with the required skills or qualifications
Sexual offenses Act 2006	The Act makes provisions about sexual offences, aims at prevention and the protection of all persons from harm from unlawful sexual acts
Children Act, 2010	The Act provides for the rights for children. The project interventions shouldn't interfere with the rights of children in the project areas
The Pest Control Products (Disposal) Regulations, 2006	Provides guidelines for safe handling of pesticide products, containers and packaging materials and their disposal on farms. The project will support interventions that require handling of such products through chemical spraying for pest control and, pesticide containers hence this legislation is very relevant
The Pharmacy and Poisons Act No. 17 of 1956	The Act regulates the manufacture, prescription and use of, and trade in, drugs and poisons used for human beings and animals and in agriculture and other activities. The project interventions supporting animal health interventions shall adhere to the provisions of this Act
Public Participation Act 2018	The act provides a general framework for effective public participation for inclusive decision-making. The project will ensure comprehensive public participation when undertaking all its investments.
The Animal Diseases Act Cap 364	The Act guides on how notifiable diseases and disposal of the infected animals and who (inspectors/veterinary officers) shall handle the quarantine and disposal of the dead animals to contain the spread. The project shall adhere to the provision of this Act when addressing issues of animal diseases in livestock interventions.
Co-operative Societies Act Amended, 2020	The Act governs the operations and management of cooperative societies in Kenya. The project will adhere to the provisions of this Act since it supports Farmer Cooperative Societies (FPOs) and Savings and Credit Cooperative Organizations (SACCOs)

Water Resources Management Rules, 2007	The rule provides the management of water and water sources (abstraction, alien species, alteration, water catchment management plan, commercialization programmes, etc. The implementation of water related investments under this project shall adhere to the provisions of these rules.
Environmental Management and Coordination Act, 1999 (amended 2015)	The Act provides for the setting up of the various Environmental and Social Impact Assessment (ESIA) Regulations and Guidelines, including Impact Assessment and Audit regulations, Waste management, conservation of biodiversity and noise pollution control. The project shall adhere to the provisions of this Act when developing the ESIA for the various investments.
Kenya Fisheries Service (Fisheries Management and Development Act, No. 35 of 2016)	The Act provides for the protection, management, use and development of aquatic resources in a manner which is consistent with ecologically sustainable development, to uplift the living standards of the fishing communities and to introduce fishing to traditionally non-fishing communities and to enhance food security. The project interventions supporting aquaculture value chain shall adhere to the provision of this Act.
Access to Information Act, 2016	The Act requires Government agencies to make official information more freely available, to provide for proper access by each person to official information relating to that person, to protect official information to the extent consistent with the public interest. The project will ensure adequate disclosure of project activities to the relevant stakeholders.

Table 4: International Conventions

Convention	Relevance
Convention on Biological Diversity (1992)	This treaty promotes the protection of ecosystems and natural habitats, respects the traditional lifestyles of indigenous communities, and promotes the sustainable use of resources. The project, however, does not envisage any interference with protected ecosystems. Project specific ESMPs shall be prepared and implemented for investments to ensure that mitigation measures adequately address potential impacts
International Plant Protection Convention of FAO (1952)	This is an international plant health agreement, established in 1952, that aims to protect cultivated and wild plants by preventing the introduction and spread of pests. The project will support national and regional institutional capacities to prevent and respond to crop and livestock disease outbreaks.
United Nations Framework Convention on Climate Change (1992)	This is an international environmental treaty produced at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, informally known as the Earth Summit. The objective of the treaty is to stabilize

greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The treaty provides for updates (called "protocols") that would set mandatory emission limits. The principal update is the Kyoto Protocol, Kyoto protocol was a protocol under the UNFCCC and has now ceased, the latest convention under UNFCCC being the Paris agreement concluded during Conference Of Parties, COP 21 in Paris, France where Countries made a commitment through Nationally Determined Conditions (NDC) to reduce their emissions. The project shall implement climate smart agriculture to limit emission from agricultural practices that are a significant contributor to Greenhouse Gasses (GHG) emissions.

Relevant Institutions for Environmental and Social Issues

The key institutions involved in the coordination and management of environmental issues include National Environmental Management Authority (NEMA), County Environmental Committee (CEC), National Environmental Complaint Committee (NECC), National Environmental Tribunal (NET), Environmental and Lands Court (ELC), Pest and Product Control Board (PCPB), Kenya Agricultural and Livestock Organization (KALRO), Director of Occupational Safety and Health (DOSH) among others. The key institutions with respect to social issues include Commission on Administration of Justice (CAJ), National Gender Equality Commission (NGEC), Kenya National Commission on Human Rights (KNCHR) among others.

World Bank Environmental and Social Standards

The project will be guided by the applicable environmental and Social Standards (ESS) under the Environmental and Social Framework (ESF). The relevant ESS for FSRP include ESS1- Assessment and Management of Environmental and Social Risks and Impacts, ESS 2-Labor and Working Conditions, ESS 3-Resource Efficiency and Pollution Prevention and Management , ESS 4-Community Health and Safety, ESS 5-Land Acquisition, Restrictions on Land Use and Involuntary Resettlement, ESS 6-Biodiversity Conservation and Sustainable Management of Living Natural Resources, ESS 7-Indigenous Peoples(IPs)/Sub-Saharan African Historically Underserved Traditional Local Communities(SSAHUTLC),which in Kenya have a name VMG(vulnerable and marginalized groups) ESS 8-Cultural Heritage and ESS 10-Stakeholder Engagement and Information Disclosure.

Environmental and Social Risks Classification

The overall Environmental and Social Risk Classification is rated as **substantial** based on the risks for subprojects identified and outlined in the Project Appraisal Document (PAD), and in the Environmental and Social Review Summary for the Project.

Environmental and Social Requirements

FSRP will be guided by applicable environmental and social standards under its Environmental and Social Framework, 2017. The recipient of World Bank funds through the Environmental and Social Commitment Plan (ESCP) commits to put in place material measures and actions to safeguard the Environmental and Social concerns. These material measures and actions will ensure compliance with applicable Environmental and Social Standards. The Recipient shall also comply with the provisions of the Environmental and Social (ES) documents required under the Environmental and Social Management Framework (ESMF) as referred to in the ESCP, such as Stakeholder Engagement Plan (SEP), Integrated Pest Management plan (IPMP), Vulnerable and Marginalized Framework (VMGF), Labor Management Procedures (LMP), Security Management Plan (SMP), Resettlement Policy Framework (RPF).

Potential Environmental and Social Impacts

The financing of the project activities is expected to have positive impacts to the targeted beneficiaries. Some of the positive impacts will include food security, employment creation, increased agricultural income, improved natural resource management and reduction of Greenhouse Gas emissions (GHG).

The potential negative impacts based on the project investment will include but not limited to loss of vegetation, noise pollution and vibration, soil erosion, surface water quality, eutrophication, solid and liquid waste among others. The potential social impacts will include but not limited to sexual exploitation, abuse and harassment, impact on vulnerable and marginalized groups, disease spread, conflict in project areas. This ESMF has proposed comprehensive mitigation measures for each of the potential impacts during the implementation of FSRP in the Environmental and Social Management Plan (ESMP) as captured in Table 6-2 of this framework.

ESMF Implementation and Coordination Arrangement

The Project FSRP's implementation will involve a three-tiered institutional arrangement (National, County, and Community). Under the first tier at the national level, the Ministry of Agriculture & Livestock Development (MoA&LD) is the main implementing agency. Within MoA&LD, the project is anchored in the State Department for Crop Development. The second tier is at the County level, with county governments as the executing agencies. The third tier is at the community level, where beneficiaries implement microprojects and other community-led interventions. The three levels shall work in harmony to ensure efficient and effective implementation of Environmental and Social aspects within the project.

Environmental and Social Risk Management Instruments

GoK has prepared an Environmental and Social Commitment Plan (ESCP), and Stakeholder Engagement Plan (SEP). There are Other environmental and social risk instruments that will complement this ESMF and include Framework Integrated Pest Management Plan (Annex 2), Security Management Plan (Annex 3) and Labor Management Procedures (Annex 4) which have been developed.

Procedure for Preparation and Approval of E&S Instruments

The preparation of the Environmental and Social Instruments for all the project investments shall entail the following steps;

- i. Screening of the proposed investments for environmental and social impacts by the Environmental and Social safeguards teams at the County Project Coordination Units (CPCUs) using the Environmental and Social screening checklist (Annex 5)
- ii. The Environmental and Social safeguards team at the CPCU in consultation with the County Panel of Experts(CPOE) and the County Director of Environment will recommend appropriate Environmental and Social (E&S) instruments (Simple Environmental and Social Management Plan(ESMP),Summary Project Report (SPR) or Comprehensive Project Report (CPR) for the proposed investment based on the NEMA Legal Notice No. 30/31 of April 31, 2019 on risk classification and the World Bank Environmental and Social risk classification (Table 01)
- iii. The CPCUs E&S team in consultation with the CPOEs shall engage a qualified ES expert with valid practicing license in consultation with the County Environmental Committee (CEC) to conduct an Environmental and Social Impact Assessment (ESIA) as per the ESIA Terms of Reference (ToR) in Annex 6 using prescribed outline for SPR and CPR in Annex 8 and Annex 9 respectively.
- iv. The ES expert will then submit the draft ESIA report to the CPCU for review by the County Environmental Officer and County Social Officer in consultation with the CPOEs
- v. The reviewed ESIA report shall be given back to the ES expert for input of the review comments and preparation of the final ESIA report.
- vi. The final report will be submitted to the National Project Coordination Unit NPCU for review by the National Panel of Experts (NPOE)
- vii. The reviewed report shall be sent back to the respective County for input of NPOE comments and final preparation of ESIA Report
- viii. The final ESIA will be submitted to NEMA for licensing for CPRs and approvals for SPRs.
- ix. The Bank shall review all documents for subprojects classified as substantial risk, while sampling will be applied by typology of subproject for review of moderate and low risk subprojects.

Subprojects risk classification

The sub projects open for funding under the project will include only the ones with substantial, moderate, or low risk categories. Subprojects that fall under High risk are excluded together with other activities in the exclusion list as in the ESCP.

Table 5: ESF Classification of FSRP Subprojects and expected E&S Instruments as per WB ESF

Classification	Sub Project Type	Expected E&S Instrument
Substantial risk	Dams, Large water pans, irrigation works, Boreholes, Market infrastructures.	CPR/ ESMP and IRP
Moderate risk	Small water pans, Market infrastructures, Hay barns, Livestock production infrastructures, Feeder roads, spot improvements, Chemical sprayings/ Pests control sub projects, Holding grounds, Quarantine yards, Pasture/seed multiplication centers, hydro-met infrastructure.	SPR / ESMP and IRP
Low Risk	Water ponds, Landscape rehabilitations, Hay barns, Pest control sub projects, vaccinations, Fodder and feed infrastructures, Disruptive Agriculture Technologies (DAT).	SPR and ESMP

All undertakings enumerated in the Second Schedule of EMCA require an Environmental Impact Assessment /study report prepared and submitted to the National Environment Management Authority (NEMA) for review and eventual licensing before the development commences. The need for environmental impact assessment (EIA) should be seen in the context of the precautionary principle. The purpose of such an assessment is to assess the impact of proposed development activities and ensure that any likely adverse impacts on the environment can be dealt with. However legal Notice No 31 and 32 require that every proponent undertaking a project specified in the Second Schedule of the Act as being a low risk project or a medium risk project, shall submit to the Authority a summary project report of the likely environmental effect of the project. The nature of low and medium risk projects are indicated in the legal notice.

Table 6: Risk Classification and expected E&S Instruments as per the EMCA, 1999

Classification	Sub Project Type	Expected E&S Instrument
Medium	Dams, Large water pans, irrigation works, Boreholes, Market infrastructures.	CPR/ ESMP and IRP
	Small water pans, Market infrastructures, Hay barns, Livestock production infrastructures, Feeder roads, spot improvements, Chemical sprayings/ Pests control sub projects, Holding grounds, Quarantine yards, Pasture/seed multiplication centers, hydro-met infrastructure.	SPR / ESMP and IRP

Classification	Sub Project Type	Expected E&S Instrument
Low Risk	Water ponds, Landscape rehabilitations, Hay barns, Pest control sub projects, vaccinations, Fodder and feed infrastructures, Disruptive Agriculture Technologies (DAT).	SPR and ESMP

Monitoring and Reporting on Environmental and Social Compliance

The implementation of the ESMPs will be conducted in a participatory manner involving the NPCU, CPCUs, Panel Of Experts (PoEs), line ministry departments, and relevant non-state actors. The team will conduct quarterly monitoring and evaluation as well as on a need basis to ensure compliance.

The CPCUs will prepare periodic reports on the environmental and social aspects of the project to the NPCU. Similarly, the NPCU will prepare and submit periodic reports to the World Bank. Reporting will be quarterly and annually throughout the project implementation period.

Annual environmental and social audits will be carried out on the implemented and NEMA licensed sub projects to monitor their environmental and social impacts and mitigate unforeseen negative ones not captured in the ESMP. A close-out audit will be done for the whole FSRP interventions before project closure.

Capacity Building

Public Consultations, Stakeholder Engagement, and Disclosure

Consultations on FSRP design, planned activities and implementation arrangements including this ESMF, IPMP and other instruments have been done with institutional stakeholders among them Government Ministries, Departments and Agencies as well as community representatives. Stakeholder consultation was undertaken and the recommendations included in this ESMF, and all other instruments. Further, a Stakeholder Engagement Plan (SEP) has been prepared to guide the stakeholder consultation process throughout the project implementation cycle. The SEP also contains details about purpose and timing of stakeholder engagement as well as the required resources and responsibilities for consultation activities. This ESMF and IPMP (in Annex 2) will be disclosed on MoA&LD's website and World Bank's external website upon its review and approval by the MoA&LD and the World Bank.

The Project will implement a Stakeholder Engagement Plan (SEP) consistent with ESS10, in a manner acceptable to the World Bank Financial Agreement. The project prepared a plan to guide in this process. Communication is critical to the transmission of clear, concise and factually correct information, either through interpersonal communication or communication

with a group of people. The project will employ all means of communication and platforms to ensure the right messages and stakeholder involvement is adhered to for the project to achieve its Project Development Objectives (PDO).

MoA&LD presented this ESMF as a draft to first round of identified stakeholders as part of public consultation and more specifically to seek input from the stakeholders on potential environmental and social impacts and mitigation measures of the FSRP on the 15th February 2023 at Lysak Haven Park Hotel Machakos. The issues that were of community members' concerns were Mobilizations, Community representations, Labour (Child and contractual), issues, gender issues, conflicts and land take amongst others. Those which were of government staff included Safeguards of community resources, Value chains selection, PoEs selections, inclusions of lessons learnt from KCSAP, ELRP and NARIGP. The detailed issues that arose from the stakeholders and the responses including the list of 1st round of participants is included in this ESMF (refer to Annex I).

An acceptable copy of ESMF will be disclosed in accordance with the ESS 10 disclosure standards. The ESMF and IPMP will be disclosed on the website of MoA&LD and forwarded to the Bank for disclosure at the Bank's external website. The ESMF will also be disclosed in the project areas for access by the beneficiaries and implementing communities in a form, manner and language they can understand. Summaries will be prepared to include disclosures in the prevalent local languages prevailing in the project area as but not limited to oral presentations and summaries of the expected benefits and risks associated with the project

Grievance Mechanism (GM)

The NARIGP, KCSAP, and ELRP have functional GMs which will be adopted and adapted to manage grievances from interventions being implemented by FSRP. The key GM processes include: receiving of grievances by; written letters/memorandum, phone, in-person, text or email to publicized toll free mobile phone lines and email addresses. The FSRP GM will address concerns and complaints registered promptly and transparently without cost or discrimination for project affected persons. Grievances will be received at the three levels ie the community, County and National level with focal persons at each level and escalated to the next level if not resolved at the level of reception. Grievances may also be reported to the National institutions mandated to receive and resolve environmental and social complaints including National Environment Complaints Committee (NECC) and the Environment and Land Court (ELC). The main channels that will be used to communicate grievances will include physical reporting, telephone calls, short message services, letters, emails and a toll-free number. In line with ESS2, the project will also establish and implement a worker grievance mechanism to enable project workers to address project-related workplace concerns, including sexual exploitation, abuse and harassment (SEAH) as outlined in the LMP. The grievances on SEAH are sensitive and require strict confidentiality and a dedicated pathway in the GM as specified in the SEAH action plan and LMP.

The estimated cost for the implementation of the ESMF is US\$ 2,450,000. The corresponding estimated costs for the implementation of the specific ESMF activities is outlined in Table 9-2 of this Framework.

The ESMF report is organized as follows:

- *Executive summary*
- *Chapter 1-Introduction Chapter and description of the proposed project*
- *Chapter 2- Methodology and consultation*
- *Chapter 3-Baseline data*
- *Chapter 4-Description of Regulatory Framework*
- *Chapter 5-Applicable World Bank Environmental and Social Safeguards Policies*
- *Chapter 6- Potential Environmental and Social risks and Impacts*
- *Chapter 7- Coordination and Implementation Arrangements*
- *Chapter 8 - Public Consultations and Disclosure and Grievance Mechanism*
- *Chapter 9 – References*
- *Chapter 10-Annexes*

I INTRODUCTION

I.1 Background

1. Kenya has experienced strong economic growth and decline in the incidence of poverty. From 2011–2021, gross domestic product (GDP) grew by an average of 4.5 percent per year, and in 2014, Kenya acquired middle-income status. With strong fundamentals, Kenya’s economy quickly rebounded after the COVID-19 pandemic sent the economy into negative growth (-0.25%) in 2020. GDP increased by 7.5 percent in 2021 and 6 percent in the first quarter of 2022, driven primarily by services and industry. Although poverty rates have fallen substantially and human capital is high for the region, a large number of Kenyans still live below the international poverty line. As of 2021, nearly 27 percent of the population of 55 million people lived on less than \$2.15 a day. That rate was above the pre-crisis level of 26.5 percent (in 2019), but an improvement compared to rates of 29 percent rate in 2015 and 37 percent in 2005 (WDI 2022). In 2022 moreover, the poverty rate was expected to dip under 26 percent. As of 2020, Kenya was the third highest ranking country in Sub-Saharan Africa in relation to the World Bank Human Capital Index (score of 0.55), and it fell in the “medium human development” category according to the Human Development Index for 2021 (score of 0.575).
2. The Kenya Climate Smart Agriculture Project (KCSAP) the National Agricultural and Rural Inclusive Growth Project (NARIGP), and the Emergency Locust Response Project (ELRP) have already laid strong foundations for building resilience in the agricultural sector. The three projects have mobilized nearly 1.3 million farmers, most of them smallholders, into nearly 50,000 common interest groups (CIGs) and nearly 500 farmer producer organizations (FPOs). Over 20,000 community-level extension workers are training farmers on 900 climate smart technologies, innovations, and management practices (TIMPs) across 21 value chains. These TIMPs have been developed through 51 adaptive research projects with the Kenya Agriculture and Livestock Research Organization (KALRO). Over 20,000 micro-project investments have been funded to build farmer capacity for adopting these TIMPs and more than 450 investments have been supported to enhance smallholder productivity and market linkages. At the mid-term stage, these projects had achieved a 15 percent increase in the yields of selected, priority crops. Nearly 60 percent of participating farmers had been linked to 505 FPOs and 177 FPOs had developed enterprise development plans (EDPs) for leveraging formal finance. Eighty-five public private partnerships had been established to improve service delivery for participating farmers. The projects had also laid the groundwork for more digitally-integrated value chains. KALRO has developed a Big Data Platform that includes a database of 2.37 million Kenyan farmers (including those covered under KCSAP, NARIGP, and ELRP) and is using spatial data and farmer details to provide integrated agro-climatic advice and market information to farmers and agricultural organizations. A Disruptive Agriculture Technologies (DAT) program has seen high potential agtech startups sign formal agreements with 31 counties to support provision of digital solutions in the areas of

extension and advisory, credit, and market linkage services. The agtechs startup was supported with farmer databases of profiled farmers who were trained on various solutions and project tracked uptake of the solutions. Moving forward, the FSRP will build on the big data platform and DAT initiative by systematizing the deployment of agtech solutions across selected value chains. In the interim, to respond to worsening drought conditions, all the three projects have modified their existing implementation plans to roll out some new activities specifically targeting livestock farmers, which make up the majority of farmers in the drought-affected counties. These activities are mainly focused on supporting the provision of feed, fodder, and water for livestock.

3. Building on these projects, the Food Systems Resilience Project (FSRP) will act on continued opportunities to build agricultural and food system resilience by working with farmers, service providers, other value chain actors and policymakers at the county and national levels. In particular, there is an immediate need and opportunity to support severely drought affected farmers rebuild their crop and livestock systems in the process, adopt modern, climate-smart technologies that will enhance their productivity and resilience. For this to be possible, both input, agricultural service, and output markets need to be developed, as does research on climate-resilient farming approaches and technologies and farmer organizations' capacity. The project will provide more comprehensive approaches to water and land management which is needed to build agricultural and food system resilience. At the county and national levels, policymakers and executive agencies will benefit from access to more timely and accurate agriculture information to make informed decisions

1.1.1 Sectoral and Institutional Context

4. The proposed project is fully aligned with Kenya's Vision 2030 which covers the period between 2008 and 2030. The ambitions for the agricultural sector, the Agricultural Sector Transformation and Growth Strategy (ASTGS), and (Medium Term Plan) MTP IV while complementing ongoing investments in World Bank funded projects. The project responds to the Vision 2030 objective for agriculture by focusing on revitalizing agriculture and transforming it from subsistence into a more competitive and commercially oriented sector. The proposed project directly aligns with the first pillar of agriculture transformation, focusing on enhancing productivity and food security while also responding to the ASTGS goals of "raising small scale farmer incomes through farmer-facing enterprises that provide inputs, equipment, processing, and post-harvest aggregation and boost household food resilience through community-driven interventions in arid and semi-arid lands.
5. The sector is also part of the The Fourth Medium Term Plan, MTP IV (MTP 2023-2027) of Kenya Vision 2030 which is the Kenya blue print for economic development 2008-2030. MTP IV succeeded the Third MTP 2018-2022 which incorporated the "Big Four" Agenda and now a "The Bottom-Up Economic Transformation Agenda (BETA)" which is also entrenched in the Vision 2030 framework. The BETA targets the agriculture sector

among others for transformation to drive the government's inclusive growth agenda over the medium term. The project will support outcomes complementing the GoK's vision to ensure food security and build resilience. These are: (i) building producer capacity and creditworthiness for enhanced access to credit and extension services; (iii) developing and strengthening FPOs to support collective marketing and value addition; (iv) integration of Digital Agriculture solutions across all segments of value chains; (v) incorporating Climate Smart Agriculture (CSA) practices in the food systems and value chain. This project will complement and build on other interventions by the World Bank that support the government's MTP IV agenda: KSCAP; NARIGP; Kenya Marine Fisheries and Socio-economic Development (KEMFSED) Project, and the Program to Strengthen Governance for Enabling Service Delivery and Public Investment in Kenya.

6. The project's design is strongly aligned with the proposed World Bank Group Country Partnership Framework for Kenya for FY 2022-2027. Specifically, the project responds very strongly to proposed objective 3 to foster small enterprise and small producer success and proposed objective 6- to increase household resilience to, and national preparedness for shocks. The project is also strongly aligned with the latest Systematic Country Diagnostic, specifically priority 7 for agriculture which calls for enhanced commercialization opportunities across agriculture value chains. The project design is also in line with the Jobs and Economic Transformation (JET) theme adapted for Kenya as part of the framework of the 20th International Development Agency (IDA-20) replenishment and will contribute to the twin goals of ending extreme poverty and boosting shared prosperity.

1.2 Project Justification

7. Kenya's average annual temperature increased by 1°C between 1960 and 2003, and by up to 1.5°C in dry parts of the country. Rising temperatures have led to increasingly erratic weather patterns and a general decline in rainfall during the main growing season. Considering that 98 percent of agriculture is rain fed, farmers are highly vulnerable to disruptions in rainfall patterns. The long-term fiscal liabilities caused by floods and droughts have been estimated to cost Kenya 2–2.8 percent of GDP per year. Climate change impedes Kenya's food and nutritional security as yields of crops like maize, rice, soya bean, coffee, and tea are projected to decline by 40–45 percent by 2050, leading to the loss of income and food prices increases of 75–90 percent by 2055.
8. The FSRP will act on continued opportunities to build agricultural and food system resilience by working with farmers, service providers, other value chain actors, and policymakers at the county and national levels. In particular, there is an immediate need and opportunity to support severely drought-affected farmers rebuilds their crop and livestock systems, and in the process, adopts modern, climate-smart technologies that will enhance their productivity and resilience. For this to be possible, both input, agricultural service, and output markets need to be developed, as does research on climate-resilient farming approaches and technologies and farmer organizations' capacity. A more

comprehensive approach to water and land management to build agricultural and food system resilience is a necessity.

9. The Kenya Food Systems Resilience Program (FSRP) therefore, aims to tackle the underlying structural challenges of food insecurity and reduce beneficiaries' sensitivity to unpredictable climate, crisis, and conflict events. This will be realized through: Building resilient food production capacity; reducing post-harvest losses. Promoting the sustainable use of natural resources; Enhancing food marketing; Fostering resilience-focused public policies and improving regional coordination

1.3 Project Description

1.3.1 Project Development Objective (PDO)

10. To increase resilience of food systems and the country's preparedness for food insecurity in project areas, Progress toward the PDO will be measured using five PDO level indicators. All relevant indicators will be disaggregated by gender and age.

1.3.2 Project Components

11. FSRP will support investments in building resilient food systems in Kenya, through four primary investment pathways. They are: i) rejuvenating and rebuilding resilient agricultural and livestock production capacity in Kenya by developing national and regional agricultural information systems, developing and delivering resilience-enhancing technologies and services and through community engagement and technology transfer including through digitalization (ii) strengthening the availability of water and improvement rangelands management for resilient agriculture and livestock production, (iii) strengthening the integration of the production systems to domestic and regional markets, with appropriate investments in food safety and value addition, and (iv) establishing an enabling policy and institutional framework at sub-national, national and regional level capable of supporting food systems resilience for Kenya

1.3.2.1 Component 1: (Re-) Building Resilient Agricultural Production Capacity (US\$55 million)

12. This component aims to strengthen the resilience of Kenya's domestic food supply to climate change and other shocks and stressors by fostering more climate-resilient agricultural production and related supporting services.¹ It is organized around following three subcomponents.
13. **Subcomponent 1.1: Data and Digital Agriculture Systems at the National and County Levels (US\$15 million).** The subcomponent aims to develop and strengthen data and digital systems that support agricultural resilience and climate adaptation planning. It will do this by improving and scaling up existing digital solutions and platforms including the Kenya

¹ FAO. 2011. "Women in Agriculture, Closing the Gender Gap for Development."

Agriculture and Livestock Research Organization's (KALRO) existing "big data" platform. The platform, while continuing to provide climate and market information services to farmers, will also be leveraged to monitor animal and plant health including pest and animal disease outbreaks, in coordination with regional organizations and provide agronomic and pest advisory services to farmers, including greater uptake by female farmers, thereby further enhancing climate adaptation. The big data platform will be integrated with the Kenya Integrated Agriculture Management Information System (KIAMIS) of MoA&LD to ensure full alignment with the data & digital needs and services of MoA&LD. The focus will be on developing those digital services (including pest monitoring and climate and market information services) that have the potential to be scaled or replicated across national borders. The subcomponent will also support the digitization of agricultural statistics, research outputs, and farmer registries, and build the capacity, within the Ministry of Agriculture and Livestock Development (MoA&LD), Counties and KALRO, to use statistics and data science to enhance decision-making and enable more climate-adaptive programming, as well as monitoring climate trends, and assess impact of shocks on of rural areas. The subcomponent will technically support the implementation of GoK's agriculture insurance program.

14. **Subcomponent 1.2: Climate-Smart Agriculture Technologies and Services (US\$10 million).** This subcomponent aims to increase farms' productivity and resilience by developing and disseminating climate-smart agriculture (CSA) technologies and services to farmers, including climate-smart seed systems and gender sensitive technologies, addressing Kenya's vulnerabilities to extreme weather trends. The development of CSA technologies² will be prioritized for crops and livestock that are important to food security and regionally traded. Focusing on CSA technologies that are relevant across the Horn of Africa region (including MPA participants, Ethiopia, Somalia, and Kenya). The subcomponent will leverage and build on the 900 climate-smart TIMPS already developed by KALRO and support farmers' uptake of them using participatory extension approaches like farmer field schools (FFS) and pastoral field schools. The climate-smart TIMPS in question include the development of climate smart seeds (crops) and breeds (livestock) that are climate resilient and farming practices and services that support soil health and water conservation, carbon sequestration, and GHG mitigation. In addition, the project will support the development of climate-smart seed systems by building the capacity of farmers to undertake seed production and supporting KALRO's seed unit, thus reducing import dependency and strengthening local markets.
15. **Subcomponent 1.3: Community Engagement and Technology Transfer Including through Digitization (US\$25 million).** This subcomponent aims to strengthen community engagement and enhance the uptake of digital solutions at the farm level with the objective of enhancing climate resilience and productivity, particularly among women farmers. In terms of strengthening community engagement, the project will support the (a) mobilization of new

² Including manure composting and application, improved pastures management, drought-tolerant crop varieties and other techniques mentioned on Kenya's CSA Country Profile (<https://climateknowledgeportal.worldbank.org/sites/default/files/2019-06/CSA%20KENYA%20NOV%2018%202015.pdf>)

Community-Driven Development Committees (CDDCs) and Common Interest Groups (CIGs) as well as the strengthening of the existing CDDCs and CIGs and (b) identification and periodic training of lead farmers at the CIG level. In order to scale up the uptake of digital solutions, the project will support the scaling up of existing partnerships involving disruptive agricultural technology (DAT) service providers, farmers, pastoralists, and agro-pastoralists, building on the One Million Farmer Platform. The project will support farmer mobilization, technical assistance, training, capacity building, and digital equipment that enable farmers to access climate information services, climate-smart TIMPs, climate-resilient inputs (seeds, breeds, and balanced fertilizers), digital finance, and markets. The project will also support agro-entrepreneurs that act as both “last-mile” extension service providers and agro-dealers, effectively bundling advisory services with climate-smart inputs, information and financial services, and even market linkages.³

1.3.2.2 Component 2: Supporting the Sustainable Development of Natural Resources for Resilient Agricultural Landscapes (US\$30 million)

16. This component aims to enhance the sustainable management of natural resources by investing in water conservation and rangeland management interventions identified as priorities by county integrated development plans (CIDPs). At the same time, it will proactively look for ways to leverage available technologies, innovations, and management practices including ones developed by national and regional research institutions to address longstanding and emerging issues, including ones relating to the changing climate. This component will expand and rehabilitate irrigation infrastructure, improving irrigation services and operational and maintenance practices, restoring and afforesting watersheds, and generally optimizing water use and restoring ecosystem services through nature-based solutions.⁴
17. **Subcomponent 2.1: Water Availability for Crops and Livestock (US\$15 million).** This subcomponent will improve farmers’ access to water for crops and livestock, leveraging the farmer led irrigation development (FLID) approach already being implemented in Kenya. It will build and improve the efficiency of water harvesting and help agriculture-dependent communities adapt to drought and build climate resilience. In relation to water harvesting, the subcomponent will finance the construction or rehabilitation of small farm ponds, multipurpose water pans, and other interventions designed to improve water availability and recharge. It will support farmers to develop and adopt a range of technologies related to water use efficiency that draw on multiple types of equipment and approaches, including drip irrigation, solar pumps, cover, perennial and deep-rooted crops, crop rotation, and reduced tillage, and supporting the efficient use and conservation of productive ground and surface water resources. Proposed infrastructure will be informed by climate resilient design

³ In most cases, agro-dealers are already working as extension service providers and advisors. The project will focus on ensuring that existing agro-dealers and new entrepreneurs are providing high-quality and relevant advice to local farmer. Agro-entrepreneurs are trained to maintain digital farmer databases and sales records and the project will monitor this data to identify potential cases of input overuse.

⁴ Any activities that involve the use or potential pollution of international waterways, namely Lake Turkana and Juba-Shebelle system and connected aquifers will not be eligible for Project financing. The POM will reflect this as part of eligibility criteria

standard considerations.

18. **Subcomponent 2.2: Rangeland Management for Crops and Livestock (US\$15 million).** This subcomponent includes key activities to mitigate climate-change (e.g., rotational grazing, soil conservation, and agroforestry, which will increase soil carbon sequestration) and enhancing climate resilience (e.g., improving water infiltration, diversifying crops and livestock production systems) helping farmers to overcome climate vulnerabilities derived of climate-related shocks, such as droughts or floods. It will support: (a) sustainable soil and land management including participatory grazing management schemes and participatory rangeland resource management; (b) the demarcation and restoration of livestock migration routes and common grazing lands, which are highly vulnerable to droughts (land restoration will increase climate-suited land for livestock); (c) the development of energy-efficient and climate-resilient feed and fodder storage infrastructure (informed by climate design standards, especially energy efficient and rain-proof equipment) and strategic feed reserves; (d) climate-smart animal health infrastructure and services including disease surveillance and vaccination, holding grounds, and quarantine compartments. As climate change have a significant impact on animal health and diseases in the Kenyan agricultural sector, including outbreaks due to extreme temperatures, vector-borne diseases, and reduced feed availability, this activity will address these challenges by preventing and promptly responding to livestock diseases outbreaks, while providing access to improved animal housing, water and feed management, disease surveillance and control, and enhanced veterinary services; (e) livestock restocking programs with focus on drought resistant breeds and better suited for the country's adverse climate conditions; (f) crop-livestock integration including seed multiplication and bulking (crops and pasture) and improved breeding practices. The project will contribute to sustainable soil and land management including participatory grazing management schemes and participatory rangeland resource management. Detailed climate adaptation and mitigation outcomes are provided in Table 3-1

1.3.2.3 Component 3: Getting to Market (US\$45Million).

19. This component aims to improve physical and economic access to sufficient, safe, and nutritious food by improving crop and livestock farmers' access to domestic and international markets. It will do so by enhancing the capacity of producer organizations to meet market requirements including minimum volume requirements and quality standards. The component will also focus on establishing or upgrading agrifood distribution, logistics, and other marketing infrastructure in ways that will increase market connectivity and value addition. The component will also support access to relevant financial services.

20. **Subcomponent 3.1: Strengthening of Farmer Producer Organizations (US\$15 million).** This subcomponent will help crop and livestock farmers connect better to markets by establishing or strengthening FPOs and the constellation of agro-enterprises that serve them, thus facilitating aggregation, quality control, and the marketing of agricultural products. While supporting FPOs this component will enhance farmers' access to climate-adapted farming inputs, technologies, and knowledge and to diversified and more lucrative output markets, giving them better tools to manage farm-level climate risk, more resources

to face climate shocks, while reducing food loss and waste's GHG emissions by promoting commercialization of the total production. The subcomponent is expected to catalyze job creation and the inclusion of women, youth, and small-scale producers in value chain activities, helping to durably increase their income. Using inclusion grants and technical assistance, it will specifically support: (a) overall FPO capacity building; (b) the training of FPO leadership in financial management; (c) the automation of FPO financial management systems and transactions; (d) assessments of domestic, regional, and global market opportunities, and value chain analyses and development plans; (e) the development and implementation of climate-informed Enterprise Development Plans (EDPs); (f) subscription to climate information services and provision of real-time agro meteorological advisory and decision-support services to members of these EDPs; and (g) training on reducing contamination and GHG emissions in livestock rearing. EDPs will devise systems for FPOs and their member farmers to access high quality and climate-resilient inputs (such as climate-adapted seeds and breeds) and formal finance, and value addition.

21. **Component 3.2:** *Market Infrastructure and Enterprise Development (US\$5 million)*. This subcomponent will invest in market infrastructure to improve the post-harvest handling of crop and livestock products and facilitate value chain actors' adherence to sanitary and phytosanitary (SPS) standards. The improved climate-resilient post-harvest facilities will ensure enhanced productivity, reduced post-harvest losses, and increased value of the products while addressing climate vulnerabilities such as exposure and susceptibility of commodities to extreme weather conditions or energy disruption for producers. It will establish or upgrade facilities used to aggregate, grade, sort, process, and store agricultural products, cold storage infrastructure and spot improvement for market facilitation. These investments which will privilege renewable energy and energy-efficient technologies (such as improved crop and food storage, packaging and distribution) are expected to enhance food systems resilience and climate change adaptation in the Horn of Africa by promoting regional food trade and reducing value chain losses, increasing productivity and income available to invest in adaptive capacity, and decreasing dependence on fossil fuels and energy prices shocks⁵, while mitigating associated GHG emissions. The infrastructure will also be designed to withstand frequent and severe flooding thereby reducing exposure of commodities to extreme weather conditions.

22. **Subcomponent 3.3:** *Creditworthiness of Crop and Livestock Farmers (US\$25 million)*. The subcomponent will facilitate crop and livestock farmers' access to affordable financial products and services including savings, credit, and insurance by addressing both demand and supply side constraints. It will support: (a) the development and deployment of digital financial services to reduce information asymmetries, increase efficiency, and increase financial inclusion, which will help diversify livelihoods vulnerable to climate change impacts, supporting adoption of climate resistant varieties of crops and livestock; (b) existing and new local savings and credit cooperative organizations (SACCOs) to increase farmers' access to high-quality, climate-resilient inputs and infrastructure; (c) financial management

⁵ Climate Smart Agriculture Sourcebook (FAO).; Available at: [https://www.fao.org/climate-smart-agriculture-sourcebook/production-resources/module-b9-energy/](https://www.fao.org/climate-smart-agriculture-sourcebook/production-resources/module-b9-energy/chapter-b9-4/en/) chapter-b9-4/en/

systems and capacities, through a combination of training for members and the automation of SACCOs' management and financial systems; (d) financial inclusion grants which consist of initial grants to support establishment of new Sacco's (d) revolving funds (the financial inclusion matching grants) where the CIG/VMG savings will be matched and will be administered in the eligible SACCOs and provided by CDDCs, and primarily supporting CIGs/VMGs' adoption of climate-smart TIMPs and technologies and climate-resilient inputs. The project will engage with commercial banks, SACCOs, microfinance institutions, and digital financial service providers to build county-, regional- and national-level partnerships supporting sustainable and inclusive financial services, as well as to develop specialized credit products designed to support climate-smart agriculture.

1.3.2.4 Component 4: Promoting a Greater Focus on Food Systems Resilience in National and Regional Policymaking (US\$10 million).

23. This component will support efforts to bring a resilience focus to food-related public institutions, policies, and spending at the national and regional levels, while building the organizational capacity within the public sector to pursue and implement them.
24. **Subcomponent 4.1: Prioritization of Food Systems Resilience in Public Policy and Spending (US\$5 million).** This subcomponent will bring a climate resilience focus to food systems development plans, strategies, legal and regulatory frameworks, institutional arrangements, programs, budgets, and other food systems initiatives. Public policies and spending prioritizing food systems resilience can promote adoption of climate-smart agricultural practices, support development of resilient food value chains and build adaptive capacity of farmers and communities, addressing several climate vulnerabilities such as drought, flooding and food security. It will specifically support: (a) the mainstreaming of climate resilience objectives in Kenya's strategic food systems vision and priorities at the regional , national and county level ; (b) the development of relevant strategies, action plans, and other policy documents at the regional , national and county level; (c) efforts to align market and policy incentives with food systems climate resilience objectives as defined at the national or regional levels;⁶ (d) the management of food reserves including systems for procuring, importing, storing, and monitoring food stocks, and for facilitating interagency coordination thereby reducing food losses and waste; (e) climate informed policy reforms aligned with regional trade integration including the harmonization, improvement, and implementation of commercial regulations, standards, and customs and border procedures; (f) the inclusion of a climate resilience focus in M&E frameworks as well as the systematic collection of gender-disaggregated data relating to agricultural development and relevant natural resources management activities; (g) the systematic inclusion of gender in strategies and policy documents.
25. **Subcomponent 4.2: Institutional Capacity for the Implementation of Resilience-Enhancing Policies (US\$5 million).** This subcomponent will build the capacity of MoA&LD and the counties to develop, review, and implement climate resilience-focused policies by developing relevant human as well as material resources. The subcomponent will offer technical assistance and

⁶ FAO, 2011 "Women in Agriculture, Closing the gender gap for development."

training to support: (a) policy analysis and policy harmonization at the national and regional levels with a focus on enabling regional integration and regional cooperation; (b) the improvement of performance management and other administrative systems; (c) studies focused on climate resilience, communications, and knowledge management; and (d) competitive long-term training for PhDs and MScs in the priority areas for strengthening climate resilience of Kenya's food systems.

1.3.2.5 Component 5: Contingent Emergency Response Component (CERC) (US\$0)

26. This component will finance eligible expenditures in the event of an emergency precipitated by a disaster. The activation of CERC, by request of the government, will allow funds to be disbursed rapidly to reduce damage to productive infrastructure, ensure business continuity, and speed up recovery. An immediate response mechanism operation manual (IRM-OM) will be developed by the government stipulating the fiduciary, safeguards, monitoring, and reporting requirements relating to CERC as well as other coordination and implementation arrangements. In the event of CERC activation, funds from other project components will be reallocated to finance immediate response activities as needed.

1.3.2.6 Component 6: Project Management (US\$15 million)

27. This component will finance activities relating to project coordination at the national and county levels.

28. **Subcomponent 6.1: Project Coordination (US\$10 million).** This subcomponent will finance national- and county-level project coordination units, including salaries of contract staff, operations and maintenance (O&M) expenses, office equipment, and audits. It will also finance project supervision and oversight by the National Project Steering Committee (NPSC) and the County Project Steering Committees (CPSCs); and oversight and intergovernmental coordination by the Joint Agriculture Sector Steering Committee (JASSCOM) and the Council of County Governors' (COG) structures for agriculture including the Committee on Agriculture, the Caucus of County Executive Committee Members (CECMs) for agriculture, and the Agriculture Secretariat.

29. **Subcomponent 6.2: Project Monitoring, Learning, Knowledge management, and Cross-Cutting Issues (US\$5 million).** This subcomponent will finance all activities relating to communications, including with project beneficiaries, government officials involved in project implementation, key policymakers, and citizens at large. As part of its commitment to citizen engagement, the project will intensively engage with the communities and enable their participation in and ownership of the planning, preparation, and implementation of value chain development plans, micro-project proposals at the CIG level, and EDPs at the FPO level. The subcomponent will also finance the implementation of environmental and social safeguards (monitoring and compliance) along with routine M&E activities such as data collection, analysis, and reporting, and the development of an ICT-based MIS. Finally, it will finance baseline, mid-point, end-of-project impact evaluations and an implementation completion report (ICR).

1.3.3 Project Scope

30. The 13 counties selected to be supported under the project are 13 forming the project counties: Baringo, Marsabit, Wajir, Mandera, Garissa, Tana River, Lamu, West Pokot, Laikipia, Isiolo, Turkana, Samburu, and Elgeyo Marakwet as shown in fig 1 under baseline data.

1.3.4 Project Beneficiaries

31. The project aims to support 350,000 crop and livestock farmers, most of them operating at a small scale. The project will also benefit many other value chain actors including extension workers, aggregators, logistics support providers, and various SMEs as well as IPS and other VMGs. Further, the project will place a strong focus on inclusion of youth and women farmers within the supported value chains. Nearly 5,000 full time equivalent jobs are expected to be created by the expansion of FPO, anchor off-taker, SME, and agritech operations, and the development of agro-entrepreneurship, and market linkages.

- (i) Other Key beneficiaries are VMGs.: In the context of the World Bank Environmental and Social Standard 7 (ESS7), the term “Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities” referred to as Vulnerable and marginalized Groups (VMGs) in World bank operations) is used in a generic sense to refer exclusively to a distinct social and cultural group possessing the following characteristics in varying degrees: (a) Self-identification as members of a distinct indigenous social and cultural group and recognition of this identity by others; (b) Collective attachment to geographically distinct habitats, ancestral territories, or areas of seasonal use or occupation, as well as to the natural resources in these areas; (c) Customary cultural, economic, social, or political institutions that are distinct or separate from those of the mainstream society or culture; and (d) A distinct language or dialect, often different from the official languages of the country or region in which they reside. For example in Baringo (Endorois, Talai, Pokot and Ilchamus/Njemps), West Pokot (Pokot, Sengwer), Marsabit (Burji, Rendille, Gabra, Dasenach, Sakuye, Borana Galla (Oromo), Tana River (Waata/Watha, Sanye, Munyoyaya, Dahalo, Aweer/Boni, Malakote also referred to as Ilwana/Walwana), Lamu (Orma, Dahalo, Waata/Watha, Sanye), Laikipia (Yaaku (Yiaku), Wajir (Somali), Mandera (Somali), Garissa (Somali, Orma), Isiolo (Sakuye, Borana, Rendille, and Turkana), Turkana (Turkana), Samburu (Samburu Elgeyo Marakwet (Sengwer/Cherang’any);. Social Assessment (SA) study targeting the identified VMGs in compliance with ESS 7 will be carried out before the Participatory Integrated Community Development (PICD) to determine the specific relative vulnerabilities of the identified VMGs according to the terms of reference in the Vulnerable and Marginalized Groups Framework (VMGF).
- (ii) Associated facilities which do not meet the requirements of the ESSs, whether the beneficiaries have, or do not have control or influence over such associated facilities.
- (iii) Activities that may have significant adverse social impacts and/ or may give rise to significant social or community conflict.

- (iv) sub-project/ activity with either adverse impacts on land or natural resources under traditional/customary use or have risks associated with the relocation VMGs coupled with any negative impact on their cultural sites/heritage
- (v) Activities that may involve involuntary resettlement or land acquisition (physical relocation of PAPs).
- (vi) Activities that may involve economic displacement of more than 200 PAPs
- (vii) Any other excluded activities as set out in the ESMF for the project

1.3.5 Implementation Arrangements

32. The project will leverage on the existing implementation arrangements developed under NARIGP and ELRP, for implementation of FSRP. However, the implementation architecture under this project will undergo significant changes with stronger focus on specialized technical assistance. Specialized positions will be created at national as well as county level to support highly technical functions under this project. The project will also adopt new innovative practices for bringing in highly qualified young graduates from leading agriculture and management institutions in the country to work on high intensity fixed duration technical assistance assignments. Additionally, the project will innovatively utilize mechanisms such as internships and community level human resource deployment especially at institutions such as SACCOs and FPOs.
33. FSRP's implementation will involve a three-tiered institutional arrangement (national, county, and community). Under the first tier at the national level, the Ministry of Agriculture & Livestock Development (MoA&LD) will represent GoK as the main implementing agency. Within MoA&LD, the project will be anchored in the State Department for Crop Development. The second tier will be at the county level, with county governments as the executing agencies of the project. The third tier will be at the community level, where beneficiaries will implement various activities and sub-projects. The three-tiered institutional arrangement will: (i) Lessen the approval layers for faster decision making and efficient project implementation and (ii) Utilize the constitutionally mandated governance structures at the National and County levels, to the extent possible.
34. To enhance linkages and ownership of the project, participating county governments will be fully involved in the decision-making process at the National level, as they will be represented in NPSC by the Chair of the Committee of Agriculture for the Council of Governors (CoGs). In addition, County Governments through CPSCs and CTACs with support from CPCUs will be responsible for decision making/approval of sub-projects and for providing oversight at the county and community levels.
35. **National level.** Overall project oversight and policy guidance will be provided by NPSC, which will be co-chaired by the Cabinet Secretary (CS), MoA&LD and the Chair of the Committee for Agriculture in the CoGs secretariat; NPSC will comprise PSs from the relevant state departments of line ministries, and representatives of the private sector and

civil society. NPCU, to be headed by the National Project Coordinator (NPC), will be established in the State Department for Crop Development and will be responsible for managing day-to-day project implementation. Other key staff of NPCU will include thematic technical experts, Financial Specialist and Procurement Specialist, M&E Specialist, Environmental Safeguards Specialist and Social Safeguards Specialist, Communication Specialist, a SEA/SH/GBV Consultant and a Security Consultant. The NPCU staff will be deployed to the project on a full-time basis by the national government. Recruitment of NPCU staff not within the civil service will be done only where internal capacity is inadequate. NTAC, comprising (among others) directors of relevant line ministry departments, directors general of the relevant government agencies, County Executive Committee Members (CECMs) Caucus, and representatives of the private sector, will be co-chaired by the PS, MoA&LD and Chair of CECM Caucus Agriculture Committee. The CEO of the Intergovernmental Relations Technical Committee (IGRTC) will also be a member of NTAC. NTAC will be responsible for providing technical support for overall project implementation. The composition of members of NTAC attending each meeting will depend on the agenda or technical advice sought by NPCU. NPC will serve as the secretary to both NPSC and NTAC.

36. County level. Depending on each county's governance structure, CPSC will be chaired by the County Executive Committee Member for Agriculture who will be responsible for providing implementation oversight in the respective counties. That oversight will include: (i) approving county annual work plans and budgets (AWP&Bs), community-led micro-project proposals, and investment proposals submitted by FPOs and (ii) ensuring that they are incorporated in the CIDP. CPSC will comprise chief officers of the relevant county ministries (e.g., Agriculture, Livestock and Fisheries; Water and Irrigation; Trade and Cooperatives; Environment and Natural Resources; Works, Mechanization, and so on); county director of environment (National Environment Management Authority; Finance and Planning departments; and representatives from the private sector (e.g., County Chamber of Commerce), county representative of farmers/POs, civil society, and VMGs/IPs. The County Commissioner will be co-opted in the CPSC, as needed. Similarly, the actual composition of CPSC members attending each meeting will depend on the agenda or technical advice sought by CPCU. The CPC will serve as the secretary to CPSC. The CPCU, which will be embedded into the respective county government structures, will comprise the Country Project Coordinator (CPC), Subject matter specialists, and M&E, Finance, full time Environmental Specialist, Social Specialist and Procurement Officers. The CPCU staff will be seconded to the project on a full-time basis by the county governments. Recruitment of CPCU staff from the market will be done only where internal capacity is inadequate.

37. Community level. CDDCs with elected leaders (chair, secretary, treasurer, and Committee members) will represent beneficiaries in the targeted communities. CDDCs will be responsible for working with SPs and or extension staff in mobilizing communities into CIGs and VMGs through the PICD process. They will also be responsible for

identifying vulnerable and marginalized members of the community through participatory targeting approaches. CDDCs will facilitate the preparation of prioritized CDPs, and the resulting community micro-projects (e.g., SLM and VC, alternative livelihoods, VMG mapped and targeted and food and nutrition security interventions), as well as their implementation, community participatory monitoring and reporting.

1.3.6 Environmental and Social Management Framework (ESMF) Purpose and Rationale

38. ESMF is used as the environmental and social instrument for assessing, managing, and monitoring environmental and social risks and impacts of the project and specifically component 1, 2, 3, 4 and 5 since the actual project locations, designs are not known, and the impacts cannot therefore be clearly described at the time of project preparation.
39. Given that the sub-projects have not been identified at this stage in project preparation, the project has prepared an ESMF, to provide guidelines and procedures for assessing environmental and social risks and impacts during implementation.
40. This ESMF lays out screening processes and tools to be used by the FSRP to assess risks and impacts per investment. Using the ESMF, screening will be undertaken for all investments planned (referred to as micro-projects and sub-projects) in order to guide preparation of specific E&S instruments for the selected sub projects.
41. The ESMF describes the appropriate roles and responsibilities of the NPCU/CPCU and other stakeholders and outlines the reporting procedures on environmental and social risk issues. It describes the managing and monitoring processes of environmental and social risks and impacts related to the project. It further determines the training, capacity building and technical assistance required for PCU to successfully implement the provisions of the ESMF; and provides practical information resources for implementing the ESMF. It also lays out the project's staffing and institutional arrangements clarifying the relations between PCUs and the World Bank, including their roles and responsibilities in view of the implementation of the ESMF. The ESMF has been prepared in accordance with applicable World Bank Environmental and Social Standards (ESS).

2 METHODOLOGY AND CONSULTATION

2.1 Literature Review

42. Review of the existing baseline information and literature material was undertaken and helped in gaining a further and deeper understanding of the proposed project. A desk review of the Kenyan legal framework and policies was also conducted in order to the relevant legislations and policy documents that should be considered during project implementation. Among the documents that were reviewed in order to familiarise and further understand the project included:

2.1.1 World Bank Related Documents

- Project Appraisal Document (FSRP)
- World Bank's Environmental and Social Framework (ESF), 2017
- Concept Environment and Social Review Summary
- Technical Note: Public Consultations and Stakeholder Engagement in WB supported operations when there are constraints in conducting public meetings.
- World Bank Group General Environmental Health and Safety (EHS) Guidelines on Agribusiness and food production, air emissions and ambient air quality, water quality and availability, construction and decommissioning, and occupational health and safety.
- Environmental and Social Framework reports for ELRP, RPLRP, NARIGP and KCSAP.
- Integrated Pest Management Plans for RPLRP, NARIGP, ELRP, and KCSAP.

2.1.2 Kenyan Relevant Legislative and Policy Documents

- Constitution of Kenya 2010
- Environmental Management and Coordination Act (1999 amended 2015)
- Water Act (No. 43) 2016
- Pest Control Act 1982
- Public Health Act (CAP 242) 2012
- Plant Protection Act (CAP 324)
- Occupational Health and Safety Act 2007
- Wildlife Conservation and Management Act 2013
- Forest Conservation and Management Act 2016
- Employment Act 2019
- Crop Protection Act No. 16 of 2013
- County Government Act 2012
- National Council for Disability Act 2003
- Physical Planning Act (CAP) 286
- Agricultural, Fisheries and Food Authority Act No. 13 of 2013

- Land Act, 2012
- Community Land Act (No.34) 2016
- Climate Change Act 2016
- HIV/AIDS prevention and control Act, 2006
- Persons with disabilities Act, 2014
- National Gender and development policy 2019
- National Gender Policy 2011
- Kenya National Youth policy 2018
- Sexual offences Act 2006
- Children Act, 2010
- National Museums and Heritage Act 2006
- Seeds and Plants Variety Act 2012
- The Pest Control Products (Registration) Regulations, 1984
- The Pest Control Products (Labeling, Advertising and Packaging) Regulations, 1984
- The Pest Control Products (Importation and Exportation) Regulations, 1984
- The Pharmacy and Poisons Act No. 17 of 1956
- The Pest Control Products (Licensing of Premises) Regulations, 1984
- The Pest Control Products (Disposal) Regulations, 2006
- The Agriculture Transformation and Growth Strategy (ASTGS) 2019 – 2029
- The National Agricultural Sector Extension Policy No. 04 of 2011
- The National Productivity Policy No. 3 of 2013
- Public Participation Act 2018
- Livestock Act 2020
- Animal diseases Act Cap 364
- Co-operative Societies Act Amended, 2004
- Water Resources Management Rules, 2007
- Employment Act 2019
- Companies Act 2015
- Legal Notice No. 253: The Physical and Land Use Planning (Development Permission and Control) (General) Regulations, 2021

World Bank Related Documents

- Project Appraisal Document
- World Bank's Environmental and Social Standards
- Environment and Social Review Summary
- Environmental and Social Commitment Plan
- Environmental and Social Framework
- Stakeholder Engagement Plan
- Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings
- World Bank Group General Environmental Health and Safety (EHS) Guidelines
- Environmental and Social Framework reports for RPLRP, NARIGP and KCSAP
- Integrated Pest Management Plans for RPLRP, NARIGP and KCSAP

Other Documents

- United Nations Convention on Biological Diversity (1992)
- International Plant Protection Convention of FAO (1952)
- United Nations Framework Convention on Climate Change (1992)

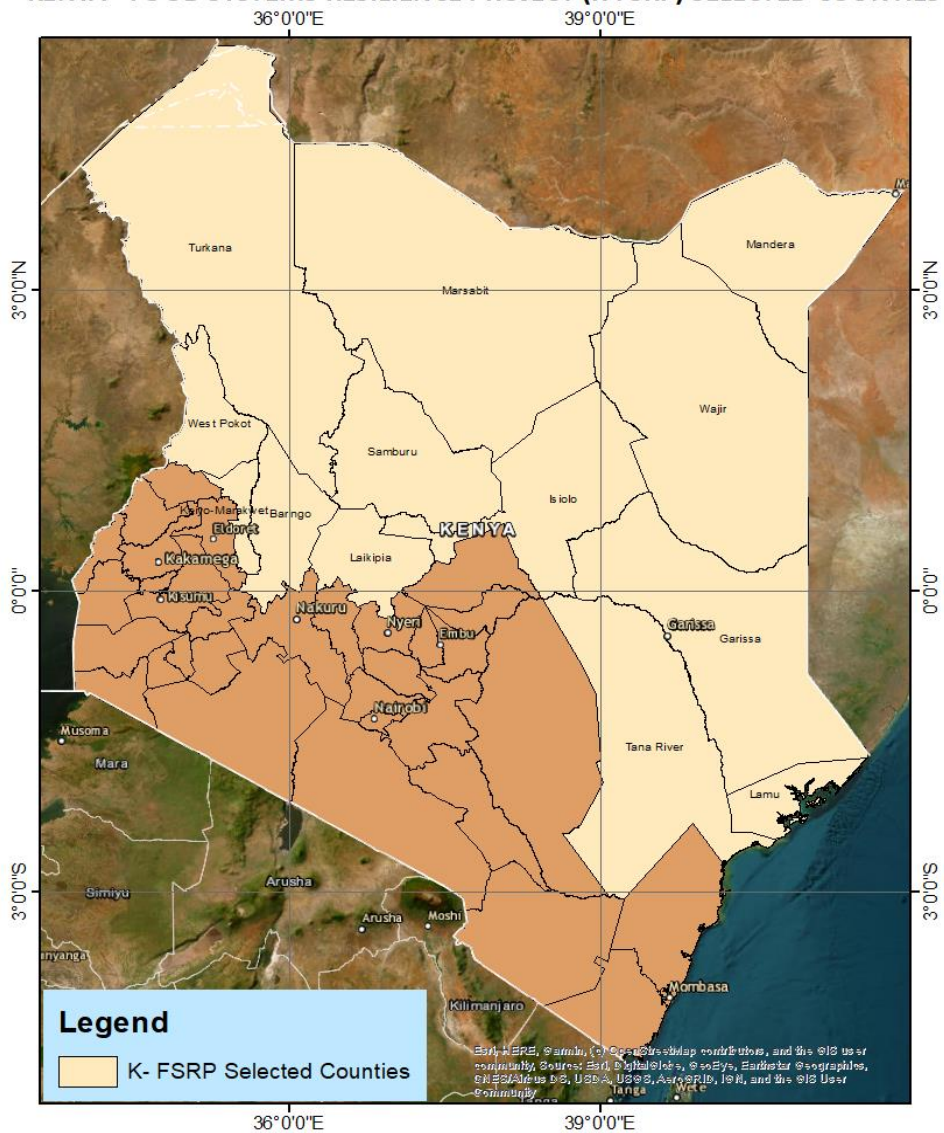
2.2 Stakeholder Consultations and Discussions

43. The draft ESMF, IPMP, RPF, VMGF, SEP, LMP SEAH/GBV prevention and Response Action Plan, SMPs and Grievance Mechanism was subjected to first round of public consultation as required by the Bank's Environmental and Social Safeguards (ESS) 10 on Stakeholder Engagement and Information Disclosure. The number and gender of the participants was disclosed as required.
44. To prevent the spread of communicable diseases, the consultations were conducted with the strict observance of the regulations by the GoK and World Bank procedures,
45. Protocols, and guidelines that borrowers are required to follow when implementing projects until such a time that the pandemic will be managed.
46. Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations in case constraints on conducting public meetings in future rounds of stakeholder engagement forums will be employed in this project.

3 BASELINE DATA

47. This section describes the overall baseline condition of targeted 13 Counties indicated in terms of bio-physical environment and socio-economic situation. Below is the map of Kenya showing project counties (figure 1)

KENYA - FOOD SYSTEMS RESILIENCE PROJECT (K-FSRP) SELECTED COUNTIES



3.1 Baringo County

Table 7: Baringo County Baseline Profiles

Physiological and Topographical Features	Biodiversity and Climate and Change	Socio-Economic
<p>Baringo County covers an area of 8,655 KM². It lies between Latitudes 00 degrees 13" South and 1 degree 40" North and Longitudes 35 degrees 36" and 36" degrees 30" East. The county has a population of 666,763 persons (2019 census)</p> <p>The County has picturesque landscapes that include among others: Waterfalls. Cliffs: Rondinin (Simut) and Kipng'ochoch Tugen hills in Baringo county and Chebloch in Baringo and Keiyo border.</p>	<p>Indigenous forests exist in Kabarnet, Karbatonjo, Tenges, Lembus, Saimo, Sacho and Ol' Arabel and Eldama Ravine. Exotic features include <i>Grevillea robusta</i>, <i>Cuppressus lusitani</i> and <i>Cuppressus lusitanic</i>. <i>Prosopis fujiflora</i> also exist. Kipng'ochoch forest in Sacho is an indigenous forest.</p> <p>The acacia woodlands in the national game reserve are home to many animals, among them are rare kudus, antelopes, leopards, cheetahs, hyenas, mongoose, monkeys, baboons and jackals. There are more than 2million lesser flamingos and 350 bird species along the shores of lake Bogoria.</p> <p>The County has a climate change vulnerability index of 0.4461. It continues to suffer extreme weather events that adversely affect the livelihoods of the people. The flora and Fauna species are well spread from highland to lowland because the County has favorable and varying ecosystems.</p>	<p>Conflicts normally arise due to the struggle to access pasture and water during the dry spell. Some neighboring counties have serious security concerns, in particular the border between Baringo and West Pokot; and Laikipia Counties are porous and in the hands of cattle rustlers who are in possession of small arms.</p> <p>The economy of the county is mainly agro-based. The main food crops grown are maize, pigeon peas, beans, Irish potatoes, sweet potatoes, sorghum, cassava and finger millet while the cash crops are coffee, cotton, macadamia and pyrethrum. Livestock products include honey, beef, mutton as well as hides and skins. These products, however, receive minimal value addition.</p> <p>The county is rich in wildlife and picturesque landscape that offers a unique countryside tourist product.</p> <p>A few minerals have been discovered in the county. Opal has been mined at Isanda near Perkera. In recent times, quarrying has gained prominence in the county.</p>

3.2 Marsabit County

Table 8: Marsabit County Baseline information

Physiological and Topographical Features	Biodiversity and Climate Change	Socio-Economic
<p>The county constitutes an extensive plain at an altitude between 300m and 900 m above sea level. The most notable topographical features of the county are Ol Donyo Ranges (2,066m above sea level) in the south west, Mt. Marsabit (1,865m) in the central part of the county, Hurri Hills (1,685m) in the north-eastern part of the county, Mt. Kulal (2,235m) in the north west and the mountains around Sololo- Moyale escarpment (up to 1,400m) in the north east. The main physical feature is the Chalbi Desert which forms a large depression covering an area of 948 KM², lying between 435 and 500 m altitude.</p> <p>The county has no permanent river, but has four drainage systems, covering an area of 948 sq. km. Chalbi Desert is the largest of these systems and it receives run-off from the surrounding lava and basement surfaces of Mt. Marsabit, Hurri Hills, Mt. Kulal and the Ethiopian plateau. In the south, the seasonal rivers of Milgis and Merille flows eastward and drain into the Sori Adio swamp.</p>	<p>The county is considered as the ‘Cradle of Mankind’ (home to Koobi Fora), a world-renowned region of archaeological sites.</p> <p>The county is also home to the Grevy’s zebra, one of the rarest zebra species in the world. The county also boasts of harbouring the only desert museum in East Africa.</p> <p>The wildlife species (Elephant, Rhino, Lion, Leopard, Cheetah, Buffalo, Oryx, Thomsons Gazelle, Ostrich, Spotted hyena, Gerenuk, Kudu, Giraffe, Crocodile, Grevy’s Zebra and Baboons) were found in large number before are now exposed and threatened to poaching and drought.</p> <p>Climate change has tremendous influence on the county’s bimodal rainfall pattern. It’s difficult to predict the onset of the short or the long rains. This has affected farming activities in regard to land preparation and increased crop failures, hence impacting negatively on agriculture dependent livelihood. Water resources have also been affected as many springs that previously flowed from the forest are drying up. Prolonged and recurrent drought has</p>	<p>The County covers a surface area of 66.923,1 km². It is the largest county in Kenya. According to the 2019 census, it has a population of 459,785 of which 243,548 Gabbra, Turkana, Burji.</p> <p>Economic activities include agriculture (main cash crops are vegetables and fruits, maize, teff, beans and millet), livestock rearing (goats, sheep, cattle, camels, donkeys and chickens) and beekeeping. The main livestock products are milk, beef, mutton and camel meat. There are no registered group or company ranches. However, different communities have their own grazing areas. This contributes to resource-based conflicts especially during periods of drought when communities compete for grazing fields.</p> <p>The County has experienced a wave of violent conflicts, mainly between the Gabra and Borana communities.</p> <p>Neglect, Suspicion, Prejudice and Remoteness is associated with residents living in Marsabit County as well as other frontier counties in Kenya.</p> <p>The County experiences environmental stress, with pressure on natural resources giving rise to new conflicts over water and pasture, as well as poorly defined boundaries between communities, with</p>

	led to reduced forage, degradation of the environment and an increase in destitution.	previously experienced shifting boundaries have affected Marsabit's stability and longer-term peace. The county has unique tourist attractions that include Chalbi Desert, Lake Paradise, Central and Southern islands, the petrified forests, Marsabit National Park and Mt. Marsabit tropical rainforest.
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3.3 Wajir County

Table 9: Wajir County Baseline information

Physiological and Topographical Features	Biodiversity and Climate Change	Socio-Economic
<p>The county is generally covered with young sedimentary rocks with loamy soils in the north bordering the Ethiopian highlands. The county has considerable deposits of Limestone and sand which are used in the local building industry. The county receives an average of 240 mm of rainfall per year which is erratic and short making it unfavourable for vegetation growth and rain fed agriculture. The county has seasonal swamps which together with drainage lines serve as grazing zones during dry season and for cultivation during the rainy seasons. The seasonal swamps are in Lagboghol</p>	<p>The dominant species include: acacia trees, gum myrrh, gum arabica. The tree cover is estimated at two percent. The county is endowed with various game species like Ostrich, Hyenas, Gazelles; Lions, Zebras, Giraffes, Warthog and varieties of Birds and snakes. Full exploitation of wildlife resources is hampered by frequent human-wildlife conflict.</p> <p>Environmental threats</p> <p>The effects of climate change are evident in a number of ways; the amount of rainfall is unpredictable, frequent and prolonged drought and unpredictable floods. These have resulted in outbreak of water borne diseases among human and animals. The county has also begun to experience extreme weather variations. Environmental degradation has resulted in the loss of grazing land and shrinking of</p>	<p>The county has 28 kilometers of tarmac, one airport and seven airstrips. There are three mobile service providers namely Safaricom, Airtel and Orange.</p> <p>Entire county is categorized as trust land apart from a small percentage of the total area occupied by townships. Main causes of unemployment include cyclic droughts, insecurity, high illiteracy and inefficient marketing systems for county products.</p> <p>Main forest products include gum and resin, charcoal, firewood, building and fencing posts, barks, honey, wood carvings, medicine and wild fruits. Firewood is harvested for individual household use and for sale to households living around town and food kiosks.</p> <p>Crop, Livestock and Value addition</p> <p>Agriculture is practiced in depressions and along drainage lines where there is more moisture due to seasonal flooding. Irrigation using underground water is limited in areas with permanent shallow wells. Due to the aridity of the county, food production is limited and contributes little to food security.</p>

<p>area and in the western and southern part of Habaswein area.</p>	<p>water resources. Other effects include loss of biodiversity, desertification, human to human conflicts and human-wildlife Wajir County Integrated Development Plan (2018-2022)35 conflicts, floods during the rains. These have seriously challenged the sustainability of the prevalent nomadic way of life.</p>	<p>Main crops produced include sorghum, drought tolerant maize, beans, melons, cowpeas, green grams and horticultural crops like mangoes, citrus, kales, spinach, tomatoes, sweet and hot peppers.</p> <p>The main types of livestock are cattle (mostly Borana type and dairy crosses), sheep, goats (dominantly Totenberg goats), camels and donkeys. Poultry keeping is more pronounced in Wajir Town.</p> <p>Mining of limestone rocks and quarrying are also major on-going activities in the county.</p> <p>Banks, Micro finance Institutions, Mobile money agents and SACCOs with FOSAs.</p> <p>The county has four commercial banks namely KCB, First Community, Equity and National Bank of Kenya. There are three SACCOs and six active cooperative societies.</p>
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3.4 Mandera County

Table 10: Mandera County Baseline information

Physiological and Topographical Features	Biodiversity and Climate Change impacts	Socio-Economic
<p>Mandera County is characterized by low-lying rocky hills resting on the plains that rise gradually from 400m above sea level in the south at Elwak, to 970m above sea level on the border with Ethiopia.</p> <p>The rest of the topography is low-lying, characterized by dense vegetation with thorny shrubs of savannah type. This is especially found along the foot of isolated hills, covered by bushes, shrubs, boulders and the invasive <i>Prosopis juliflora</i> (mathenge) shrubs. The flat plains make drainage very poor, causing flash floods during heavy rains.</p>	<p>Dense vegetation with thorny shrubs of savannah type is found along the foots of isolated hills, covered by bushes, shrubs, boulders and the invasive <i>Prosopis juliflora</i> (mathenge) shrubs. Thorny shrubs and mathenge bushes are found along foots of isolated hills and fallow land.</p> <p>The County experiences high temperatures of up to 42 degrees Celsius, with low rainfall, making it difficult for inhabitants to practice meaningful rain-fed agriculture for commercial viability.</p>	<p>Three of the banks in the county (Kenya Commercial Bank, Equity Bank and National Bank) are in Mandera East Sub-County, with one auto branch (Equity) in Elwak Town in Mandera South Sub-County. Of the 39 registered SACCOs, 10 are in Mandera East, 25 in Mandera West sub-county, two in Mandera South and the remaining two in Lafey sub-county, with a total registration of 980 persons. Only 10 are dormant. There is also one micro-finance institution (Takaful Insurance) in Mandera East Sub-County. Prolonged droughts and flooding whenever it rains have led to severe famine,</p>

<p>Earth pans are a common feature in the county. Daua River, whose source is the Ethiopian highlands, flows eastwards along the county's boundary with Ethiopia, covering 150km along the border and passes through Malkamari, Rhamu Dimtu, Rhamu, Libehia, Khalalio and Township wards into Somalia at Border Point One (BP1).</p> <p>Temperatures are high with a minimum of 24 degrees Celsius in July and a maximum of 42 deg Celsius in February. Variation in altitude is the cause of differences in temperatures across the county, where places near Banisa Constituency experience low temperatures due to neighboring highlands in Ethiopia. Rainfall is scanty and unpredictable, averaging 191.7mm annually. The long rains fall in April and May averaging 69.1mm, while the short rains fall in October and November averaging 122mm.</p> <p>Most parts of the county experience long hours (approximately 11 hours) of sunshine in a day. This causes high evaporation rates, leading to withering of most of the vegetation before they mature. The continuous sunshine in the county has great potential for harnessing solar energy.</p> <p>Overgrazing, charcoal burning and quarrying activities are the leading means through which environmental degradation has occurred in Mandera County. Poor waste disposal in settlement areas and towns (especially polythene bags and plastic packages) is also a big menace.</p>	<p>Overgrazing, charcoal burning and quarrying activities are the leading means through which environmental degradation has occurred in Mandera County.</p> <p>Livestock species in the County include mainly Camels, donkeys, cattle, sheep and goats.</p> <p>The wildlife species (Elephant, Rhino, Lion, Leopard, Cheetah, Buffalo, Oryx, Thomsons Gazelle, Ostrich, Spotted hyena, Gerenuk, Kudu, Giraffe, Crocodile, Grevy's Zebra and Baboons) were found in large number before are now exposed and threatened to poaching and drought.</p>	<p>disease outbreaks and loss of livestock and human lives. Human-wildlife conflict over resources are also some of the effects of climate change in the count.</p> <p>Mandera County is exposed to effects of the risk of regional and cross-border human mobility as a result of cross-border trade, urbanization, and a high population in mobility being pastoralists, unsafe cultural practices, and a struggling healthcare system. The county risks importation of communicable diseases like measles, cholera, polio, chikungunya, tuberculosis, chicken pox, HIV/Aids from Somalia and Ethiopia.</p> <p>County is prone to recurrent conflicts and insecurity incidences that range from terror attacks to inter-clan clashes. The proximity to the lawless Somalia and the effect of the war on Al Shabab has further exposed Mandera to numerous terrorist attacks on towns and roads, making life difficult for the local community and travelers.</p>
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3.5 Garissa County

Table 11: Garissa County Baseline information

Physiological and Topographical Features	Biodiversity and Climate Change impacts	Socio-Economic
<p>Garissa County is basically flat and low lying without hills, valleys and mountains. It rises from a low altitude of 20m to 400m above sea level. The major physical features are seasonal Laghas and the Tana River Basin on the western side. The County is principally a semi-arid area falling within ecological zone V-VI and receives an average rainfall of 275 mm per year.</p> <p>There are two rainy seasons, the short rains from October to December and the long rains from March to May. Rainfall is normally in short torrential downpour making it unreliable for vegetation growth.</p>	<p>Forests in the county are woody trees and shrubs which are mainly browsed by camels and goats and to some extent by grazers. Some species provide forage long into the dry season in form of fallen leaves and seed pods. There are over 40 Community Forest Associations (CFA) in the county. Agro forestry nurseries are common and emerging in the county. The nurseries have both fruit and forest trees seedlings. All are located in sub-counties situated along the river-rine.</p> <p>The County has a large population of game animals and birds, which are an important resource for tourist attraction.</p> <p>Main wildlife types found in the county are: Elephants, Lions, Cheetahs, Leopards, Hippopotamus, Crocodiles, Hunters, Hart Beasts, Grants Gazelles, Thompson Gazelle, Gerenuk, Civil Jackals, Spotted Hyena, Buffalos, hirola (only endemic in Garissa in the world), Grey Zebras, Topi, reticulated Giraffes, white giraffe, wild dogs, Dik-dik and Baboons. The wild animals are not confined to parks, they move freely. Manifestation of climate change is through increased frequency and intensity of drought and floods.</p>	<p>Land in the county is communally owned. It is held in trust for the community by Garissa County Government. The majority of the local communities in the county live in informal settlements.</p> <p>Livestock rearing is the backbone of the county's economy. The main livestock bred are cattle (Boran), goats (Galla), sheep (black headed Persian) and camel (dromedary one humped). The main livestock products are meat, milk, hides and skins. The estimate numbers of livestock by type are 1,104,184 cattle, 1,089,870 sheep, 1, 947,163 goats, 486,000 Camel, 165,000 donkeys and 215,000 poultry.</p> <p>Gypsum, gravel, sand and unexploited oil potential exist in the county. Sand harvesting is done along seasonal rivers/streams known as lagas.</p> <p>The county is served by a total of twenty-two financial institutions. These include nine commercial banks, thirteen village banks and one micro-finance institution. Other financial institutions like SACCOs including Garissa Teachers, Rema among others and two insurance companies including Takaful and Amaco.</p>

3.6 Lamu County

Table 12: Lamu County Baseline information

Physiological and Topographical Features	Biodiversity Climate Change impacts	Socio-Economic
<p>Lamu County is generally flat and prone to flooding during rain-storms. Some areas within the mainland Lamu such as Mokowe are below sea levels as a result of the areas being a limestone karst terrain. The highest areas are around Boni-Lungi. The area is poorly drained and main topographic features found in the county include: the coastal plains, island plains, Dodori River plain, the Indian Ocean and the sand dunes.</p> <p>The County lies along the Equatorial Climate Systems where the weather is characterized by two monsoon winds and warm climate. The mean annual potential evaporation is high at 2,327 mm per year and the temperatures range between 24°C and 30°C. Generally and over the last 30 years, there has been an increase in both the annual average rainfall and mean temperature in Lamu</p>	<p>Mangrove forests are the predominate vegetation growing on the shallow water within the Lamu Archipelago and the mainland around the ocean creeks. Nine species of mangroves are found in Lamu. Protected forests include Witu, Lungu, Pandanguo, Kipini and Lake Kenyatta buffer zone. There is also savannah woodland, thicket and farmland which supports significant populations of mammals such as buffalo, coastal topi, African wild dog, Aider's duiker, baboons, wild pigs, hippos, the rare rumped back elephant shrew (a rare and endangered mammal), a host of other faunal species such as snakes, birds, and butterflies.</p> <p>The pastoral areas of Lamu County dry lands have become more and more unreliable for livestock keeping due to the slow but surely depletion of its rangelands caused by erratic rainfalls patterns and overgrazing livestock population.</p> <p>Due to severe drought experience in 2017 the issue of climate change resulted the drying up of lakes include: Lake Kenyatta, Lake Amu, ziwa la Luimshi, ziwa la Gambi, ziwa la Kiboko, Ziwa la Kwakuomba, Ziwa la Roka, Ziwa la Kibokoni, Ziwa la Shalu, Ziwa la Munkirio, Ziwa la Kombe, Zuiwa la Sendembe and Ziwa la Taa. Rain tends to reduce in intensity in the county.</p>	<p>Lamu Town which is the main urban centre is famous for its rich cultural activities and a world heritage site. Mpeketoni Central is famous for trading and agricultural activities. There are several other trading centres located along the Malindi – Lamu road which include the following; Mokowe, Hindi, Hongwe, Bomani, Majembeni, Kiongwe, Baharini, Mapenya, Mkunumbi, Uziwa Faza Kizingitini, Pate, Siyu, Kiunga, Mkokoni, Mhamarani, Katsakairu, Witu and Moa.</p> <p>The villages are haphazard and poorly planned making accessibility difficult and roads are quite narrow and in other areas non-existent. Housing in the County is generally inadequate and this shortage is more acute in the upcoming urban centres outside Lamu town.</p> <p>Land ownership for agricultural and livestock remains a thorny issue in the county as most of the farmers do not legally own the lands they cultivate. Only 42% of the entire households in the county have titles. Agricultural related activity remains the largest contributor to the rural household income at 90 percent. Other sources include tourist related employment at five percent, wage employment at two percent and urban self-employment at two percent</p>

3.7 West Pokot County

Table 13: West Pokot County Baseline information

Physiological and Topographical Features	Biodiversity and Climate Change Impacts	Socio-Economic
<p>The County’s northern and north eastern parts are the dry plains, with an altitude of less than 900 m above sea level. On the southeastern part are Cherang’any Hills with an altitude of 3,370 m above sea level. Landscapes associated with this range of altitude include spectacular escarpments of more than 700 m. The high-altitude areas have high agricultural potential while medium altitude areas lie between 1,500 m and 2,100 m above sea level and receive low rainfall in addition to being predominantly pastoral land. Low altitude areas include Alale, Kacheliba, Kongelai, Masol and parts of Sigor. These areas are prone to soil erosion due to flash floods. Main rivers in the county are Suam, Kerio, Weiwei and Muruny. Cherang’any Hills are the main source of Muruny and Weiwei rivers, while Mt Elgon is the main source of river Suam. River Muruny, Kerio and Weiwei drain northwards into Lake Turkana, while other small rivers join and drain into River Nzoia which in turn drains into Lake Victoria. River Suam drains into Turkwel dam that generates hydro-electric power.</p>	<p>Natural forests in the county is dominated by tree species like cedar (<i>Juniperous procera</i>) and bamboo (<i>Aredinaria alpina</i>). Plantation forests cover an area of 662 ha of which approximately 34 ha are indigenous and the rest exotic. The main forest products include firewood, timber, herbs, fruits, grazing fields and honey production. The county also experiences great variations in temperature with the lowlands experiencing temperatures of up to 30 C and the highlands experiencing moderate temperatures of 15 C.</p> <p>Deforestation has affected Cherangany, Kamatira forests, Solion, Chebon, Kamalokon and Kalabata forests. This is caused by illegal timber logging and forests encroachment. Droughts are prevalent in the County affecting an estimated 70% of total land area. Climate change frequent flash floods. The impacts of flash floods and landslides include migration of people from lowlands to higher grounds, death and injury of people and animals, destructions of settlements, loss of livelihoods, increase of diseases and epidemics and destructions of natural ecosystems. Invasive species of <i>Prosopis juliflora</i> (mathenge), <i>Sansevieria ehrenbergii</i> (East African wild sisal) and Lantana Camara are rampant in Pokot. There are a variety of wild animals at the Nasolot Game Reserve. The animals include Elephant, Buffalo, Hyena, Impalas, Leopard and</p>	<p>The Pokot are agriculturalists and pastoralists. For the pastoralists, their livestock provide them with meat, milk and skin. Other Pokots are agriculturalists who inhabit the highlands while the pastoralists live on the plains moving from one place to another looking for water and grass for their animals. There are no industrial parks in the county. There are also no major industries processing finished products.</p> <p>The main economic activities in the county urban areas include: retail and wholesale trading, fresh produce and cereals businesses, entertainment and hospitality businesses, service industries including motor garages, cyber cafes, law firms, livestock auctions, private education businesses, honey processing, banking and financial services, real estate enterprises and road transport services. Most of these investments fall under the Micro, Small and Medium enterprises category</p>

	Lions. Currently, there are more than 160 elephants and more than 20 leopards in the County	
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3.8 Laikipia County

Table 14: Laikipia County Baseline information

<i>Physiological and Topographical Features</i>	<i>Biodiversity and Climate Change Impacts</i>	<i>Socio-Economic</i>
<p>The altitude of Laikipia County varies between 1,500 m above sea level at Ewaso Nyiro basin in the North to a maximum of 2,611 m above sea level around Marmanet forest. The other areas of Laikipia include Mukogodo and Ol Daiga Forests in the eastern part of the county at 2,200 m above sea level. The County consists mainly of a plateau bordered by the Great Rift Valley to the West, the Aberdares mountain ridge to the South and Mt. Kenya to the South East. The county is endowed with pastureland, rangeland, forests, wildlife, undulating landscapes and rivers among others.</p> <p>Ecological Conditions.</p> <p>The county is endowed with pastureland, rangeland, forests, wildlife, undulating landscapes and rivers among others. The high and medium potential land</p>	<p>Laikipia County is richly endowed with wildlife widely distributed in most parts of the county extending to Aberdare, Samburu, Meru and Mt. Kenya wildlife corridors. Most of the wildlife is found in the large-scale private ranches, which occupy over 50 per cent of the total area of the county. The rest is found in-group ranches predominantly owned by the Maasai, in the gazetted forests of Mukogodo, Rumuruti and Marmanet and other uninhabited tracts of land in the county.</p> <p>The animals include Elephant, Buffalo, Hyena, Impalas, Leopard and Lions.</p> <p>Land Degradation.</p> <p>Land degradation is severe in Makurian in Mukogodo East as well as Kimugandura in Segera. This is mainly caused by overstocking,</p>	<p>The total classified road network in the county is 1,038.1 Km out of which over 80 per cent are feeder roads. county is served by four main post offices located at Dol Dol, Rumuruti, Nanyuki and Nyahururu and one substation at Kinamba</p> <p>Markets</p> <p>The main commodity markets in the county are in Nanyuki and Nyahururu whereas main livestock markets are at Rumuruti, Doldol and Kimanjo. Other market centers include Olmoran, Sipili, Wiyumiririe, Lamuria and Debatas.</p> <p>Main Crops Produced</p> <p>The main crops grown include maize, beans, wheat, potatoes and vegetables. Maize takes about 51 per cent of the total planted area. Crop farming is mainly undertaken in the southwestern parts of the county due to favorable weather conditions.</p> <p>Main Livestock.</p>

<p>constitutes 20.5 per cent of the total county's land area making it suitable for crop farming.</p> <p>Gazetted areas</p> <p>There are six gazetted and one non-gazetted forest in Laikipia covering a total area of 580 square kilometres. Namely Mukogodo, Lariak, Marmanet, Ng'arua, Rumuruti and Shamaneik</p>	<p>charcoal production, water surface run-off and sand harvesting.</p> <p>Ewaso Narok swamp is a riparian area under intense threat following encroachment by farmers over the last three decades.</p>	<p>Types and Facilities Livestock production is dominant in most parts of the county with the percentage of households owning livestock at 45.8. The main livestock types are cattle, goats, sheep, poultry, camels, donkeys, pigs and rabbits.</p> <p>Ranching</p> <p>Ranches in the County produce high quality beef stock, embryo transfer for Boran breed nationally and regionally.</p> <p>Apiculture</p> <p>Bee keeping is done as part of the enterprise by pastoralists and farmers practicing mixed farming. This is practiced in farm woodlots, perimeter fences and in forests. Most of the honey is produced using traditional log hives and only a few farmers use the modern hives like Langstroth and Kenya Top Bar Hive (KTBH).</p> <p>Aquaculture</p> <p>(Fish farming) and Blue Economy Fish farming is practiced mainly in Laikipia West and Laikipia East sub-counties. The predominant species is tilapia with a small aspect of clarias (catfish) culture.</p> <p>Financial Services</p> <p>Number of Institutions Laikipia is served by 16 banks, 2 microfinance institutions and 15 insurance companies operating within Nanyuki and Nyahururu townships.</p>
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3.9 Samburu County

Table 15: Samburu County Baseline information

Physiological and Topographical Features	Biodiversity and Climate change effects	Socio-Economic
<p>The county covers an area of roughly 21,000 km² (8,000 mi²) and has a population of 310,327 persons (2019 Census) in northern Kenya where the Samburu, Turkana and many other tribes live.</p> <p>It is located in the arid and semi-arid parts of Kenya, and is made up of several highlands, plateaus and lowlands including the famous Suguta Valley. The main natural resources found in the county include land, water, forests, and wetlands, solar and wind energy</p>	<p>Wild animals include; lions, cheetahs, leopards, giraffes, buffalos, waterbucks and various antelope species. The endangered species include Grevy's zebra, wild dog's African elephants and black rhino birds and different species of small wild game. Samburu County boasts of Samburu Special five species of wildlife which are endemic to Samburu and a few other areas north of the equator. These are: Reticulated giraffe, Beisa Oryx, Grevys Zebra, Gerenuk and Somali Ostrich.</p> <p>There are also rare and endangered species such as Debrazza monkeys in the Ndoto and Matthews forests. There also hundreds of bird species. <i>Prosopis juliflora</i>, <i>Opuntia exaltata</i> and <i>Acacia reficiens</i> are a major threat to pasture and the local environment. Charcoal burning has completely destroyed indigenous trees particularly acacia and <i>Olea africana</i>; which usually take long to mature</p> <p>Climate change Impacts include rainfall periods becoming shorter and unpredictable in areas that previously received adequate rainfall; Severe prolonged droughts leading to massive loss of livestock; poor crop yields leading to food security; high prevalence of malaria; outbreak of livestock diseases; migration and displacements that affects livelihood and leads to resource conflicts and cattle rustling within the county and neighboring counties</p>	<p>Frequent insecurity in the county is due to cattle-rustling between the Samburu, Pokot, Turkana and Borana communities. Due to its proximity to the North Eastern region, there is a high proliferation of guns and small arms which makes the area very volatile.</p> <p>Cattle raids leave scores of people dead and this is the most rampant form of crime in the area. In addition, during drought there has been competition over natural resources, especially water between the communities⁷.</p> <p>The County are livestock keeping and the cultivation of barley and wheat.</p>

⁷ CRECO, 2012; Rohwerde

3.10 Tana River County

Table 16: Tana River County Baseline information

Physiological and Topographical Features	Biodiversity	Socio-Economic
<p>Rainfall is low, bimodal, erratic, and conventional. Mean annual rainfall varies between 350-450 mm, mean annual evaporation is 2,366 mm. Rainfall is highly variable, patchily distributed and often intense which can lead to sheet and gully erosion. Long rains occur in April and May and the short rains fall in October and November. Tana River County is hot and dry. The average annual temperature is about 30°C and a minimum of 20°C.</p> <p>Tana River County is composed of sedimentary rocks from the tertiary and quaternary periods, more specifically from the Pliocene, Pleistocene and recent epochs. The sedimentary deposits are made up of clayey soils intercalated with marine, deltaic, fluvial, lacustrine and coastal- lacustrine sands, silts and clays which give rise to relatively flat topography.</p>	<p>Vegetation in the area comprises woodlands, bush land and scrubland.</p> <p>The harsh climate and the perennial River Tana determine the natural vegetation in the area. The vegetation can broadly be classified into three zones as follows:- The river line forest; The transitional zone; Dry bushland/thorn-bush savannah.</p> <p>The Tana river-line forest is of high diversity with 300 species recorded. Some of the plant species found here includes: <i>Hyphaene conipressa</i>; <i>Acacia robusta</i>; <i>Acacia elatior</i>; <i>Spirostachys venenifera</i> <i>Cadaba farinose</i>; <i>Anisoclea blepharospala</i>; <i>Rhus quartiniana</i>;</p> <p>The dry bushland or thorn-bush savannah is dominated mainly by -: <i>Acacia indica</i>; <i>Acacia recifiens spp</i>; <i>Acacia busse</i>; and <i>Acacia melifera</i>.</p> <p>The county is home to various wild animals including baboons, snakes and hyenas.</p> <p>Climate change and variability: historic and future trends</p>	<p>According to the 2019 census, Tana River County has a population of 315,943.</p> <p>The county is served by two Water Service Providers (WSP) namely Tana Water and Sanitation Company and Lamu Water and Sanitation Company and Community managed supplies with majority of these water supplies concentrated in Tana Delta Sub-County.</p> <p>Generally, the average sanitation level in the county is at 48 per cent. As much as 40 percent of the households in the county have pit latrines, five percent of which are uncovered. Open defecation by adults and disposal of children feces in the open is still rampant in most rural areas of the county.</p> <p>Majority of the population (87.5%) use wood fuel for cooking and 78.2 percent use kerosene for lighting. Only 0.9 per cent of the households are connected with electricity.</p> <p>There are 71 health facilities in the county with two level four public hospitals located in Hola and Ngao.</p> <p>Agriculture and livestock production are the main sources of livelihood in the Tana River. They contribute about 82% of household incomes and more than 80% of employment. County land is mostly non-arable accounting to 3,179,870 ha equivalent to 81%, with only about 6.6% equivalent to 254,700 ha being arable.</p>

<p>Tana is the longest river in Kenya, covering a distance of about 1,012 kilometers from the farthest source to the Indian Ocean.</p>	<p>Tana River County has a relatively dry and hot climate throughout the year. The average temperature is greater than 25°C throughout the county, with the area on the western side of the county averaging over 27°C. Much of the county receives less than 500 mm of precipitation per year, and the rest less than 1000 mm per year. As such, heat stress, dry spells, and drought are hazards that strongly contribute to agricultural risk in the county. However, flooding along the Tana River County riparian areas is also an issue, especially due to periods of rain upstream in the Tana River County. Experts and farmers/ Agro- pastoralists alike acknowledge that there has been significant changes and variations in climatic conditions over the past years, affecting agricultural production and livelihoods in the County. Extreme weather events are very common in the county. Drought conditions have been experienced in 1975, 1976, 1980, 1981, 1983, 2001, 2004, and 2009⁸, where the Central and North regions of the county are the most prone, while areas along the River Tana are more prone to floods. Flood events in the county include those of 2002, 2003 and 2010 (Huho and Kosonei et al., 2014), and the recent flood events of 2015 and 2016 in areas such as Bura, Gubani, Masabubu and Tana Delta led to internal displacement of about 10,000 people and destruction of roads).</p> <p>The most extreme weather conditions tend to occur during July-December. Extreme precipitation above 20 mm in a day occurred in seven years since 1981 during the second</p>	<p>Main cash crops and food crops grown include Rice, Mangoes, Maize, Bananas, Soya beans, Cassava, Green gram and Beans</p> <p>The main challenges to agriculture and food security are caused by recurrent droughts, floods and also ethnic clashes. The county also faces security threats due to sporadic attacks from armed bandits which has led to loss of lives.</p> <p>The dominant language groups in the county are Language groups include Pokomo, Orma and Wardey.</p> <p>The county SEAH (including Domestic Violence) stands at 9.2% against 3.2% national tally and 4.3% Child Abuse (including child neglect) other than sexual abuse against 12.9% national tally. The Waata, a vulnerable and marginalized community is found in this county.</p> <p>Environmental Challenges Facing Agricultural Sector</p> <p>As mentioned above, agriculture is the main economic activity in the county, yet it is experiencing several productivity, economic, and social challenges. Crop and livestock productivity is very low. This is mostly due to harsh climatic conditions such as droughts (Makenzi et al., 2013) and floods.</p> <p>Water and Sanitation</p> <p>River Tana is the longest river in Kenya covering about 1012 Km long with catchments area of about 95,000 Km² traversing the landscape from its source in Aberdare Ranges in central Kenya to the Indian Ocean. It discharges on average 4,000 million litres of fresh water annually into the ocean near Kipini at Ungwana Bay. The Seven Folks Hydro-Electric power Stations and Bura and Hola irrigation schemes are located upstream of the delta. Tana River supports industrial and other socioeconomic functions</p>
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⁸ Ngaina et al., 2014

	<p>wet season. In contrast, January June (first wet Season) experienced no years with a single day receiving over 20 mm of precipitation. This intense precipitation within Tana River County can directly contribute to flooding, especially along smaller rivers and streams, it should be noted that extreme precipitation events in upstream parts of the Tana River County outside of the county are more important in causing flooding along the main stem riparian areas of the Tana River County.</p> <p>The first wet season is projected to experience no change or even a slight decrease in the single day's greatest precipitation. The changes are the opposite for future drought stress. The first wet season is projected to experience an increase in consecutive days with moisture stress, whereas the second wet season is projected to experience a slight decrease. Whereas, historically the second wet season experienced 20 days longer of consecutive moisture stress, however, in the future, the first wet season is projected to experience even longer periods of consecutive dry periods than the first (> 90 consecutive days of moisture stress). These projections of future climate change under the two climate scenarios—RCP 2.6 and RCP 8.517—show very little difference indicating that these changes are projected to occur no matter the emission reductions that may occur in the future.</p> <p>Protected Areas;</p> <ul style="list-style-type: none"> • Arawale National Reserve • Tana River Primate National Reserve 	<p>such as power generation upstream, agriculture, livestock, tourism and micro-enterprises found within the basin. Water in the county remains a problem for domestic use, livestock and irrigation. The county has 492 shallow wells, 120 water pans, 8 Small earth dams and 36 boreholes. The proportion of households with access to piped water is 17% while proportion of households with access to portable water is 40%. 1.19.2</p> <p>Tana River County has a total of five (5) Gazetted Water Supplies, three (3) community water supplies, 36 Boreholes, 492 shallow wells and 120 water pans. Some of these water supplies were done by the County Government and other by the National Government through development partners. The major water supplies serve a total area of 140Km², with a total production of 6610.m³ /day. The total population served is 50,000 directly by these water supplies. The number of storage tanks in these water supplies range between 10m³ to 500m³. This gives the County a total storage capacity of 2265m³ with a total pipe network covering 200Km.</p> <p>The county is served by two Water Service Providers (WSP) namely Tana Water and Sanitation Company and Lamu Water and Sanitation Company and Community managed supplies with majority of these water supplies concentrated in Tana Delta Sub-County. In its effort to ensure an integrated water resources management and development through stakeholder's participation to ensure availability and accessibility to water.</p> <p>Sanitation</p> <p>The reference on sanitation is on housing-ventilation and rendering of floors and walls of buildings, provision of dish-racks, cloth hang-line, waste disposal at household level and public in general at market centres. At the market centre level the attention is on waste disposal. Of all the centres, only Hola has a public toilet, collection of waste is done by the county government within Hola town and there is no designated disposal point for the waste. The situation in most of our institutions especially schools, is reasonably</p>
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	<ul style="list-style-type: none"> • Kora National Park <p>Ramsar Site</p> <ul style="list-style-type: none"> • Tana Delta 	<p>good as they have latrines albeit not adequate. Generally, the average sanitation level in the county is at 48 per cent. As much as 40 percent of the households in the county have pit latrines, five percent of which are uncovered. Open defecation by adults and disposal of children feces in the open is still rampant in most rural areas of the county. The use of buckets is disappearing and only three households still use them.</p> <p>Conflict and Tension</p> <p>Resourced based conflicts</p>
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3.1 | Elgeiyo Marakwet

Table 17: Elgeyo Marakwet County Baseline information

Physiological and Topographical Features	Biodiversity and Climate Change impacts	Socio-Economic
<p>The county is divided into three topographic zones namely: Highlands, Kerio Valley and Escarpment: all of them separated by the conspicuous Elgeyo Escarpment. Each of the three zones has attracted a different settlement pattern. The Highlands, which constitute 49 percent of the county area, is densely populated due to its endowment with fertile soils and reliable rainfall. The Escarpment and the Kerio Valley make up 11 percent and 40 percent respectively. These areas have low rainfall and are prone to natural disasters such as drought and landslides. Due to these harsh climatic conditions coupled with high levels of insecurity, these areas have high poverty levels and sparse population</p>	<p>Wildlife - The area has wildlife such as monkey, birds (horbil, eagle). These are the tourism attraction resources. Cherangany ecosystem has over 73 forest-dependent species, none of which is presently globally threatened. Major threatened species include <i>Gypaetus barbatus</i>, <i>Stephanoaetus coronatus</i>, <i>Glaucidium tephronotum</i>, <i>Campophaga quiscalina</i> both found in Kapkanyar and Indicator conirostris. Non-bird fauna: The ungulate <i>Tragelaphus eurycerus</i>, <i>Capys juliae</i> (butterfly) is endemic to the area. <i>Senecio johnstonii battiscombei</i> var. <i>cheranganyensis</i> and <i>S. johnstonii battiscombei</i> var. <i>dalei</i>, are endemic in the area.</p> <p>Elgeyo Marakwet ranks second County in Kenya with the largest Forest cover at 37%,</p> <p>The forest provides firewood, honey, herbal medicine, Shrine for prayers, circumcision sites. Mkorombozi and Elgon teak is used for furniture. The forest has a lot of local trees for example Elgon teak, <i>Prunus africana</i>, muna, koma, mkorombozi (rose wood) Kaisakat, and wild fruits. Botanical names of main tree species in the area include: <i>Podocarpus latifolius</i>, <i>Juniperus-Nuxia-Podocarpus falcatus</i>, <i>Juniperus-Maytenus undata-Rapanea-Hagenia</i>, <i>Cyathea</i></p>	<p>The major land use in the county is mainly agricultural activities. Other uses include residential, commercial, industrial, recreational, educational, public purpose and public utility, and forest conservation. A majority of the county residents are small scale Farmers with an average of 2.9 hectares mostly used for food and cash crop farming.</p> <p>Large scale farmers own an average of 6.7 hectares. The mean holding size in the county therefore is 4.8 hectares.</p> <p>The county has over 70 active cooperatives spanning different sectors. They include 45 Savings and Credit Cooperative Organization (SACCOs) classified as Rural SACCOs, Youth SACCOs, Matatu SACCOs, Urban SACCOs and Housing SACCOs. Similarly, there are 32 agro-based Cooperative Societies, i.e. Dairy Cooperatives, Coffee Marketing Cooperatives, Horticulture Cooperatives, Wool Marketing Cooperatives and Tea Marketing Cooperatives.</p> <p>The highest crime rate is on stealing 53%, followed by Brewing 33% and finally harm which is 30%</p>

	<p>manniana, Arundinaria alpine, Acacia abyssinica, Lobelia aberdarica and Senecio johnstonii.</p> <p>The County is characterized by erratic rains, extreme temperatures and cyclic and prolonged droughts. The variations in intensity and frequency of the droughts and floods may be manifestations of climatic changes whose full impacts are yet to be understood.</p> <p>The Sengwer people (also known as Cherang'any and previously as Sekker, Siger, Sigerai, Segelai, Senguer, Senguel and Jangwel) are an indigenous community who primarily live in the Embobut forest which covers part of Elgeyo-Marakwet county.</p>	
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3.12 Isiolo County

Isiolo County Baseline information

Physiological and Topographical Features	Biodiversity and Climate Change impacts	Socio-Economic
<p>Isiolo county covers 25,336 km². The local topography is arid or semi-arid low plains. Ewaso Nyiro river flows through the County and partly bounds it. It borders Marsabit County to the</p>	<p>The County is endowed with wildlife especially so in the ranches eg Borana ranch is home to 50 indigenous tree species and over 300 species of birds, its haven for a wide diversity of wildlife including Buffalo, Eland, Jackson's hartebeest and herds of Grant's Gazelle. The highly endangered species Gravy Gazelle, Impala and</p>	<p>Isiolo county has a total population of 268,002 persons as 2019 census. Of this 139,510 are males, 128,483 are females, and 9 intersex persons. There is an average size of 4.6 persons per household and a population density of 11 persons per km². Agriculture represents the backbone of the County's economy, being an important</p>

<p>north, Wajir county to the east, Garissa and Tana River counties to the south east, Meru County to the south, Laikipia County to the south west and Samburu County to the west.</p> <p>Most of the land in the county is flat, low-lying plain resulting from weathering and sedimentation. The plains rise gradually from an altitude of about 200 meters at Lorian swamp. It is abundant with natural resources including some perennial rivers (upper Ewaso Ngiro North up to Merti, Isiolo, Kinna, Bisanadi, Likiundu and Liliaba).</p>	<p>Burchell Zebra also roam its plains. The County is characterized by erratic rains, extreme temperatures and cyclic and prolonged droughts. The variations in intensity and frequency of the droughts and floods may be manifestations of climatic changes whose full impacts are yet to be understood.</p> <p>Isiolo is one of the most vulnerable counties to climate change in Kenya. Some of the key vulnerabilities emanating from climate change include drought and unpredictable rainfall, floods, spread of water- and vector-borne diseases, intra and extra conflict among the agro-pastoralist and the pastoralist, wildlife-farmers conflict, loss of forests and wetland ecosystems, land degradation, desertification and scarcity of portable water</p> <p>Isiolo county has three game National reserves namely, Shaba National Reserve, Buffalo Springs and Bisanadi. Samburu and Meru national park also borders the county forming part of the northern tourist circuit.</p> <p>The county is very rich in terms of diversity of wildlife species. The special five that is found in Isiolo County are; Reticulated Giraffe, Biesia oryx, Gerunuk, Somali Ostrich, and the Grevy Zebra, other wildlife species found includes; African wild dog (<i>Lycaon pictus</i>),</p>	<p>source of income, savings, and social status for the population.</p> <p>A large portion of the county is arid and not appropriate for crop farming. However, maize, beans, cowpeas, onions are produced in the areas bordering Meru and Laikipia Counties. Mangoes pawpaws and other horticultural crops are produced in the existing private small-scale irrigated farms along rivers. The backbone of the county's economy is livestock production with over 80 percent of the inhabitants relying on livestock farming. Food poverty rates are alarmingly high (77%), which has led to a high dependency of the population on relief food. The county has several ranches. A ranch neighboring Lewa Wildlife Conservancy is used as a breeding ground of Black Rhinos. Borana ranch is a group ranch and is a home to 50 indigenous tree species and over 300 species of birds. Its unique geographic situation makes the 35,000 hectares ranch a haven for a wide diversity of wildlife including Buffalo, Eland, Jackson's hartebeest and herds of Grant's Gazelle. The highly endangered species Gravy Gazelle, Impala and Burchell Zebra also roam its plains.</p>
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	<p>elephant, monkeys, antelopes, impala, giraffe, leopard, waterbuck, lesser kudu, greater kudu, hippo, buffalo, lion and over 300 species of birds.</p> <p>The county is home to Sakuye and Borana tribes but also has a significant number of people from Turkana, Samburu, Gabra and Meru communities</p>	
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3.13 Turkana county

Table 19: Turkana County Baseline information

Physiological and Topographical Features	Biodiversity and Climate Change impacts	Socio-Economic
<p>Turkana county lies at an elevation of 360m (1,181ft) while the surrounding basin is anywhere from 375-914m (1,230-3,000ft). The main mountain ranges of the county are Loima, Lorengippi, Mogila,</p>	<p>The County is mostly covered by grassland or dwarf shrubland, with about 16% shrubland, and <0.5% riparian forest and riparian woodland combined Turkana Land is a wide and a wild country, where to the south, especially within the South Turkana National Reserve, elephant, leopard, oryx antelope, gazelle, warthog as well as an</p>	<p>The county occupies an area of 77,000 km². According to the 2019 census, Turkana County has a population of 926,976. With its capital situated in Lodwar, Turkana County is the second largest county, covering more than 13% of Kenya's surface. This vast land in the northwest of Kenya is an emerging economic giant owing to</p>

<p>Songot, Kalapata, Loriu, Kailong'kol and Silale mountains. Due to their high elevation, the mountain ranges, are normally green and covered with dense bushes and high woody cover. Most of the land in the county is flat, low-lying plain resulting from weathering and sedimentation. The plains rise gradually from an altitude of about 200 meters at Lorian swamp. It is abundant with natural resources including some perennial rivers (upper Ewaso Ngiro North up to Merti, Isiolo, Kinna, Bisanadi, Likiundu and Liliaba).</p>	<p>exceptionally high number of Kori bustard roam. Along the border with South Sudan in the extreme northwest, the massive savannah grassland of the Lotikipi Plains forms another haven for wildlife which is currently undergoing gazetting as National Reserve and definitely is worth visiting. A wilderness with an out-of-this-world flair is Central Island National Park, the home of thousands of birds and crocodiles in the middle of Lake Turkana. Three crater lakes talk of the volcanic origin of Central Island, one offering a home to flamingos, another to tilapia fish and the third to crocodiles. Ferguson Gulf near Kalokol with an abundance in pelicans, flamingos and other waterfowl is a bird watcher's paradise and so are many other spots of Turkana, making it a prime destination for 'birdies' Other regions of Turkana Land not yet open for tourism offer a refugium to precious wildlife, such as the blistering Suguta Valley or Omo Delta which has a healthy population of massive crocodiles.</p> <p>The effects of climate change in Turkana County include unpredictable rainfall, extreme rainfall, frequent and prolonged dry spells, and increased daytime temperatures. Climate hazards that have been observed in the county include drought, floods, and intense rainfall. These hazards pose a growing threat to the</p>	<p>substantial oil deposits that are currently being explored. Industrial scale extraction is anticipated in the coming years– a windfall for a county with a population of slightly over 1 million.</p> <p>The Turkana people are traditionally pastoralists. The only notable migration pattern is rural to rural movement in the form of nomadism. The County is prone to famine and cattle rustling due to constant migration by pastoralists from its different parts and from neighbouring Counties in search of pastures for their livestock. Cattle theft is also prevalent during initiation rites of passage when young men may raid other communities for livestock. This has led to a cycle of cattle rustling between the communities in Turkana and neighbouring Counties which has in turn led to committees of elders are set up to resolve conflicts. Agriculture is the main source of livelihood in Turkana County. It creates more than 74% of household incomes and employs more than 45% of the population. Most farmers rely on pastoralism and rain-fed agriculture. This makes them more vulnerable to climate change and variability</p>
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	<p>agricultural sector. Drought and heat stress are major threats to Turkana County that often result in loss of pasture, starving livestock, drying water sources, and conflict among pastoralists over resources. Heavy rains in the Mt. Elgon and West Pokot regions of the county and intense rainfall over short periods of time create flooding. Onfarm adaptation strategies include conservation agriculture, rainwater harvesting, fodder conservation, and planting early-maturing and drought-tolerant crops as well as drought-resistant and high-value livestock breeds</p>	
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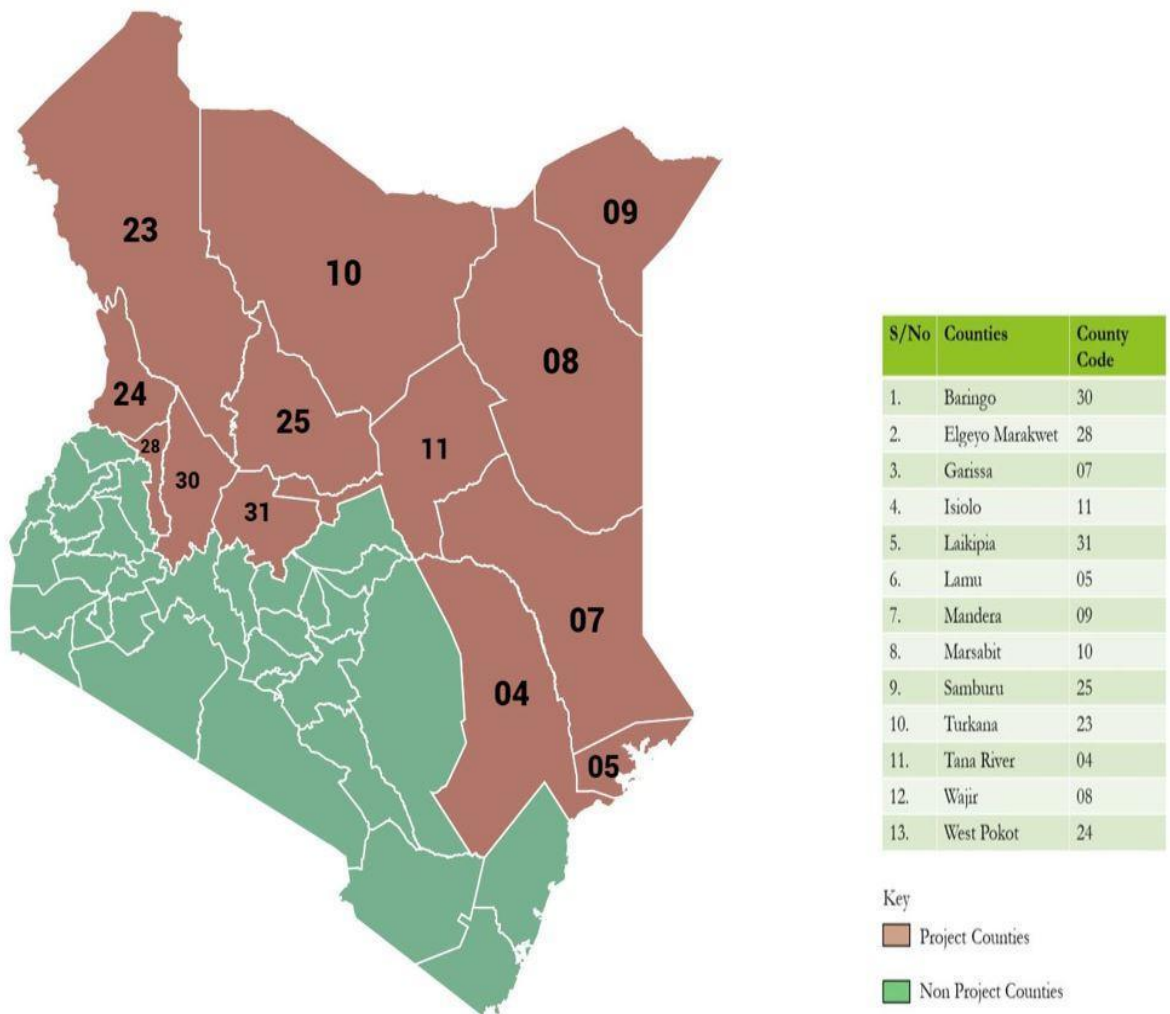


Figure 2: FSRP Project Counties

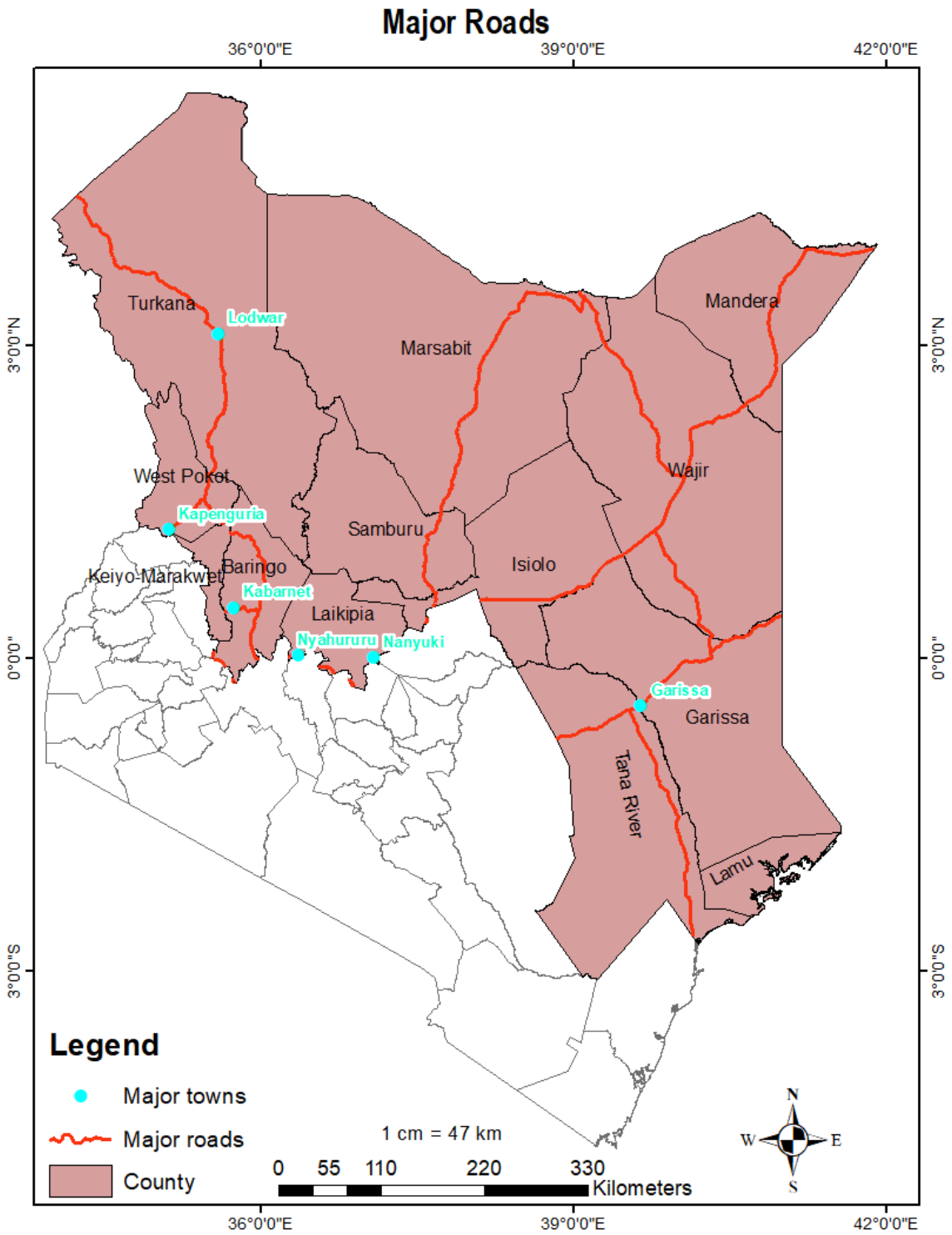
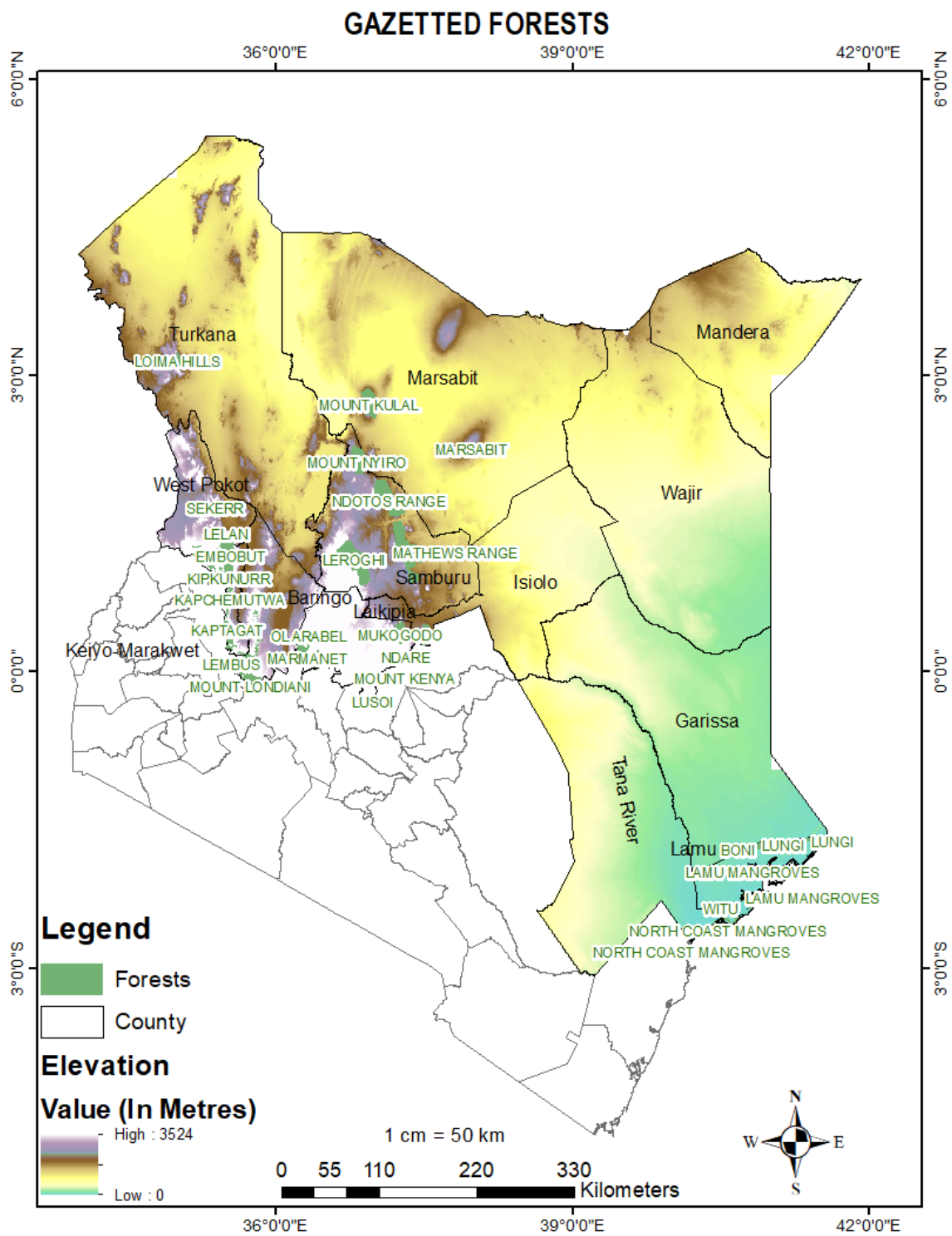


Figure 3: Major Roads Infrastructure in FSRP Counties



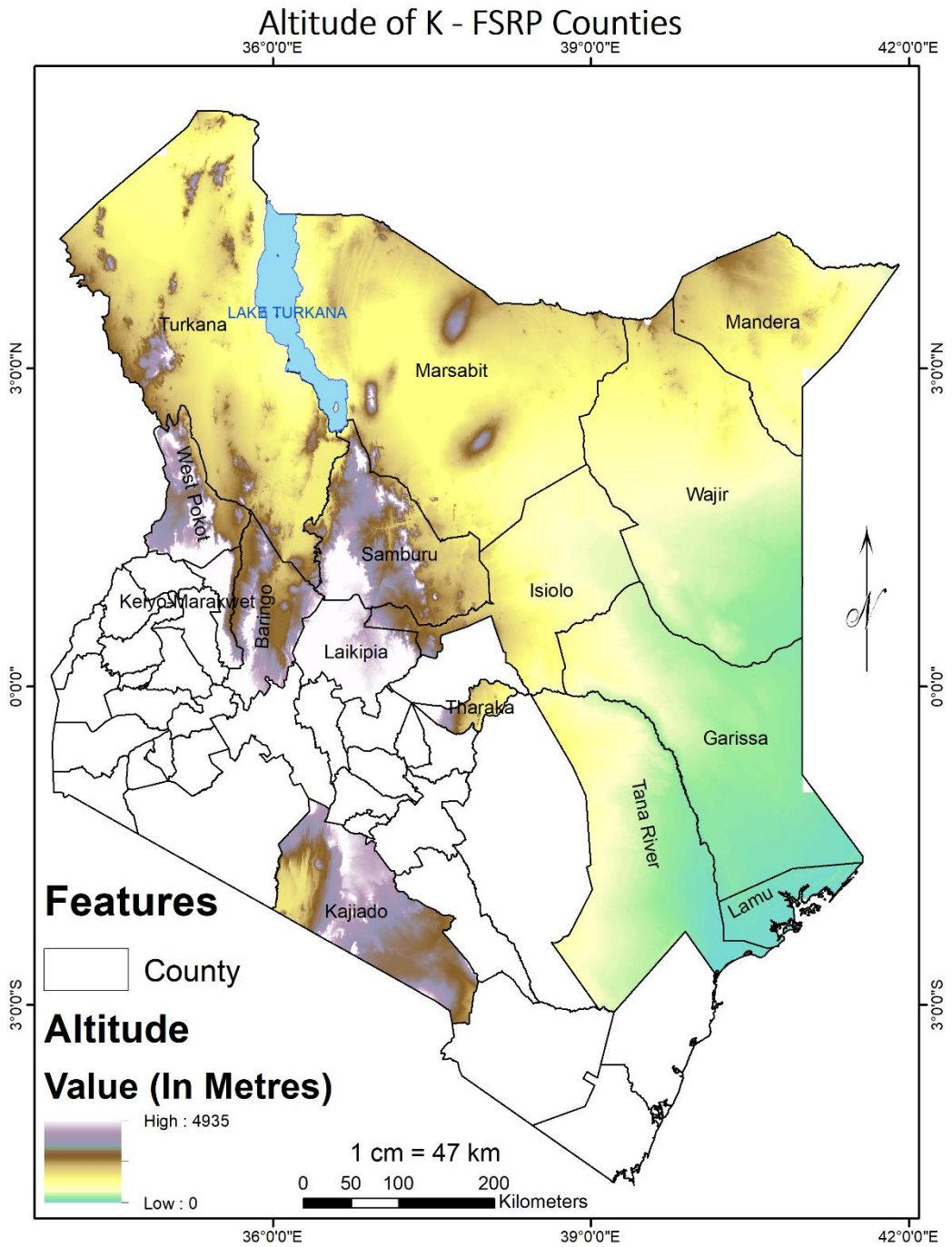


Figure 5: Elevation of FSRP Counties

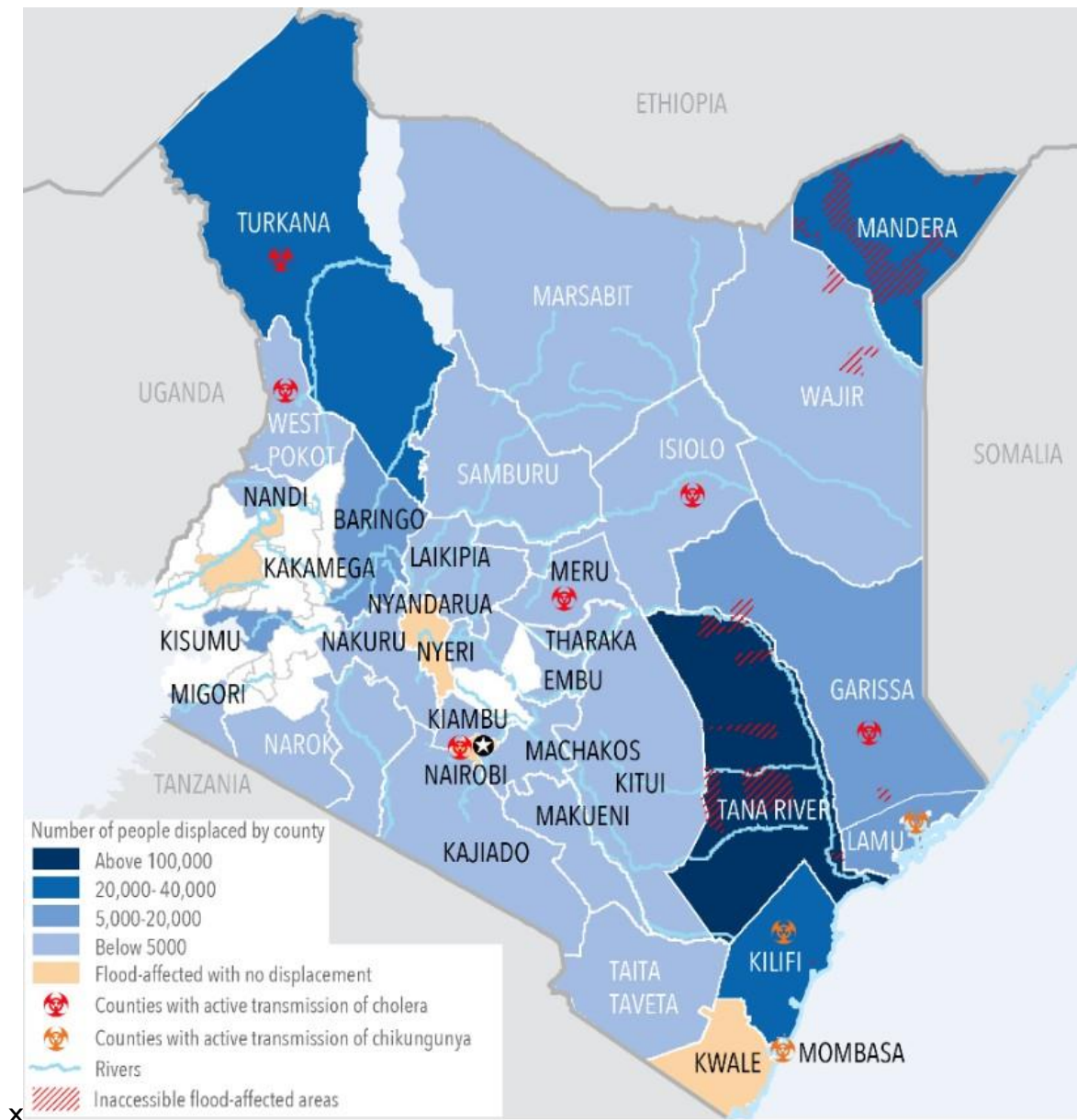


fig 6: Kenya flood risk map



The map shows the Arid and Semi-Arid Lands (ASALs), which occupy over 80% of the country. The annual rainfall in the arid areas is between 150-550mm and in the semi-arid areas between 550-850mm.



Data Sources
Natural Earth, IBC, UN, GADM, State Department for Arid and Semi Arid Lands

Created 03 JUL 2023 / 12:00 UTC+03:00

Projection & Datum WGS_1984_UTM_Zone_37N / WGS 1984

GUIDE Number DR-2022-0003204EN

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info@mapaction.org

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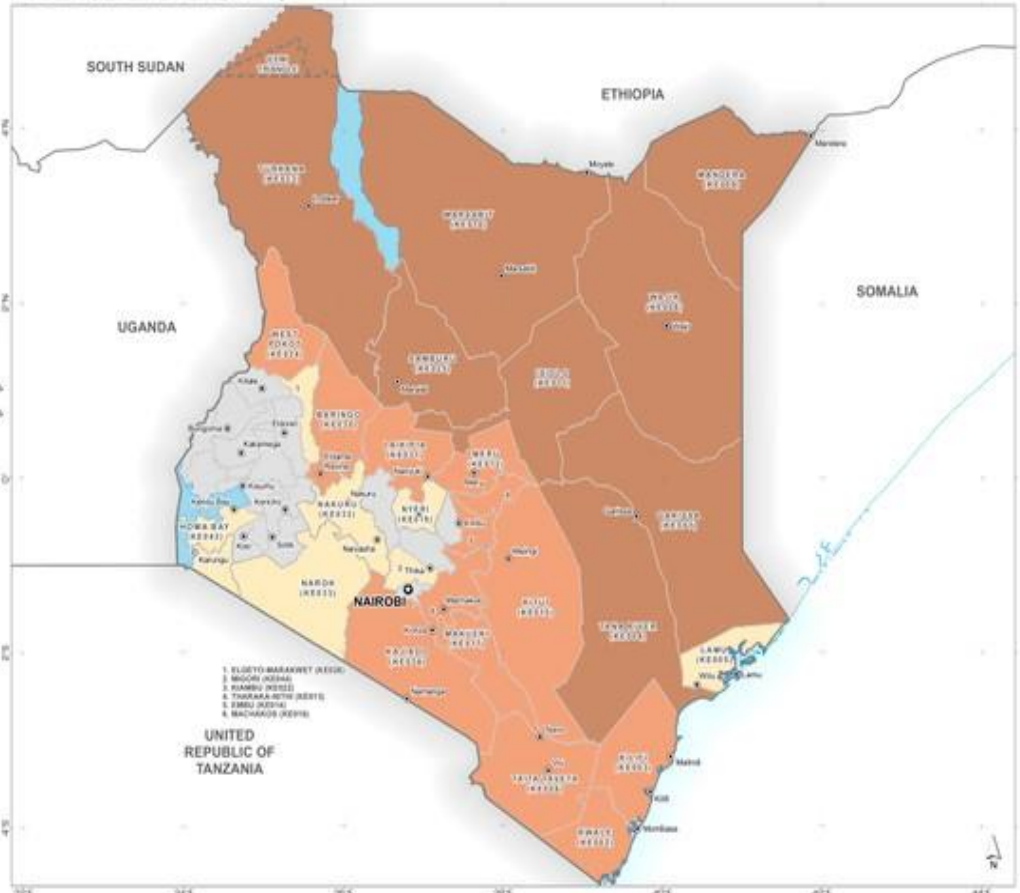


Fig 7 Kenya drought map 2014-2023

48. livestock population are found in ASALs. The livestock sector provides an important source of livelihoods for 90% of the people who live there (KAPP, 2016). Pastoralism, agro-pastoralism and dryland agriculture are the key livelihood strategies adapted to climate conditions in ASALs. Pastoralism is a livestock-based production system. The contribution of ruminant livestock to national agricultural production has been underestimated in the past (CSDS, 2016).
49. Pastoralism and artisanal fisheries are among the few land use systems that should be compatible with wildlife conservation, but this is not the case despite the fact that 75% of Kenya's wildlife are found in the drylands (Kenya Republic of 2005) and 92% of Kenya's Protected Area estate (Parks and Reserves), and 50% of Kenya's gazetted forests are found in the drylands. Wildlife impose large costs on livestock-based land use, yet with relatively few benefits in return. As a result, there has been a large reduction of wildlife from all the rangeland districts of Kenya (IUCN, 2007).
50. **Fisher folk:** Confined to lakes and rivers such as Lake Turkana, Tana and Athi Rivers. Problems include diminishing fish stock levels in the natural water bodies and high siltation

due to soil erosion causing turbidity and low fish productivity e.g. Lakes Baringo and Turkana, and River Tana. Fishing in pastoral areas has been facing some challenges, the major ones being diminishing stocks in natural water bodies as a result of high siltation levels and low productivity

51. **Pastoralists in transition:** With the increasing population in arid areas, pastoral families can no longer cope with a purely meat and milk diet. Cultivation, land adjudication and wildlife management have also contributed to a continuous decline of dry season grazing areas, and as a consequence decrease in possibilities to subsist on the pastoral system. Due to the decimation of cattle and other livestock, women play an active role to ensure family survival by participating more aggressively in activities such as beekeeping, camel rearing and trading in livestock, particularly small stock, as well as non-livestock products such as hay, mats, charcoal, clothing, and vegetables. Some of the very poorest people in the region are those who are no longer engaged in the pastoral economy and rely on wage labour or petty trade.
52. **Urban destitute/Urban populations and reliance on trade:** An increasing number of ASAL populations living around urban centres are turning to trade in such centres to supplement their income.
53. **Periodic hunters and gatherers:** In periods of extreme drought, a few communities turn to wild fruits and leaves in a bid to cushion themselves from starvation.
54. **Emerging Livelihood Options:** The ASALs have enormous potential for renewable energy, from both solar and wind. Other natural resources include sand and gravel for construction, soda ash, gums, resins, gemstones, medicinal plants, and potentially oil and gas. Mineral and mining activities provide significant and emerging livelihood options for ASAL communities. The recent discovery of substantial oil, coal and gas deposits is likely to diversify livelihoods among ASAL communities. Other mineral exploitation activities include sand harvesting, gravel-digging, prospecting for gold and precious stones, marble-quarrying and titanium, limestone and soda ash mining.

3.14 Poverty, Health and Gender in the 13 implementation counties

3.14.1.1 Poverty

55. The ASALs have the lowest development indicators and the highest incidence of poverty in the country. On average, 65% of the ASAL population live below the poverty line compared to the national average of 26%. ASALs contain 18 of the 20 poorest constituencies in Kenya; some counties in the north, such as Turkana, Marsabit, Wajir and Mandera, have between 74% and 97% of people living below the absolute poverty line. The economic activities that are found in drylands are not recognized for their true value and do not attract outside investment, therefore further undermining their productivity.

Poverty in the drylands is compounded by poor physical infrastructure, limited services compared to the rest of the country, and lack of organized markets including lack of market information. This is heightened by inter-community conflict over water and rich-patch vegetation, something that is likely to become more serious with the negative impacts of climate change.

3.14.1.2 Health

56. Health indicators in Northern Kenya are very poor, particularly for women and children, with high maternal, infant and child mortality, high levels of acute malnutrition, and low immunization coverage. The average distance to a health facility in Northern Kenya is 52km, ten times further than the national target of 5km; the percentage of children delivered with trained care in ASAL is less than one-third of the national average; there are also significant differentials between the arid and non-arid parts of Rift Valley and Eastern regions of Kenya. ASALs of Kenya is also characterized by a high prevalence of trachoma and diseases such as kalazar. Levels of HIV/AIDS infection in the north are lower than the national level but thought to be rising. Risk factors include rural-urban migration, mobility, and congested refugee camps (GoK, 2012). Most communities have social protection systems to care for the vulnerable, although these are coming under greater pressure. The disabled and those with HIV/AIDS still face high levels of stigma.

3.14.1.3 Gender

57. Though livestock ownership and control is mainly the domain of men, women also own livestock through marriage or inheritance. While men's work is more associated with herd management and decision-making, the gender division of labour is not clear cut, as women are often involved in decision-making related to livestock and spend as much time as men on animal care. Women are responsible for milking, food processing and distribution, managing small stock, and for daily food provisioning in the homestead. Men's responsibilities include planning and decision-making with regard to livestock movement, feeding and watering, castration, vaccination, slaughter, building of enclosures, digging wells and livestock marketing. Young men and women as well as children perform most of the herding.

58. To a large degree, it is men who control the income from livestock and its products, although women have a say in how the income is spent. Conflicts over the use of income are one of the factors for the high level of divorce in the ASAL and contribute to women's poverty. Access to social services is very poor, coupled with the low per capita infrastructure network in the ASAL compared to other parts of the country (IUCN, 2007). Gender roles are changing under the impact of urbanization and commercialization. The latter in particular may reduce women's control over resources they previously managed, such as dairy production. The welfare of women and girls is also directly threatened by environmental problems, which increase the pressures of providing for the household, particularly water and fuel-wood collection. High levels of unemployment and few

opportunities to generate income mean youth, especially young men, are challenging traditional power and decision-making systems, which have previously resided with elderly men. Some of these young men have been involved in inter and intracommunity cattle raids; others are getting caught up in other anti-social vices.

3.14.1.4 Gender Based Violence

59. The communities are patrilineal with men mainly focusing on livestock issues while women perform domestic duties including milking animals, fetching water and firewood, looking after home herds of sheep and goats, a few engage in small scale farming and trade.
60. Most men are sole decision makers with most women lacking access to assets and also do not participate in decision making. Gender based violence exists and is normalized with cases of sexual gender-based violence in form of rape and defilement existing in the ASAL regions.

4 DESCRIPTION OF THE ADMINISTRATIVE, POLICY AND REGULATORY FRAMEWORK

61. This chapter outlines and highlights the relevant institutional and legal as well as policy framework in Kenya which has a direct bearing on the Food systems resilience project (FSRP). The chapter further highlights the World Bank Environmental and Social Standards (ESSs) relevant to the project including a comparative analysis and gaps existing between the ESSs and host country regulations and suggestions on bridging the gaps. Finally, a section on international laws and conventions that bear relevance to the implementation of this project have also been highlighted in this chapter.

4.1 The Legal, Regulatory and Policy Framework

4.1.1 Kenya Vision 2030

62. The Sessional Paper Number 10 of 2012 on the Kenya Vision 2030 under the economic pillar identifies specific interventions which in the agricultural sector include increasing productivity of crops and livestock, introducing land use policies for better utilization of high and medium potential lands, developing more irrigable areas in arid and semi-arid lands for both crops and livestock, and improving market access for smallholders through better post-harvest and supply chain management. It also prioritizes flagship projects in the sector, specifically: enactment of the consolidated agricultural reform bill, fertilizer cost-reduction investment, disease-free zones, land registry, land-use master plan and arid and semi-arid lands development project. The Policy makes reference to climatic change and directs responses. The Policy under the social pillar, with respect to environmental management proposes to intensify conservation of natural resources, such as establishing voluntary carbon markets, intensify research on impact of and response to climatic change and pilot adaptation programmes.

4.1.2 National Policy on Environment and Development Sessional Paper No. 6 of 1999

63. Currently, a far-reaching initiative towards an elaborate national environmental policy is contained in the Sessional Paper No. 6 of 1999 on Environment and Development. It advocates for the integration of environmental concerns into the national planning and management processes and provides guidelines for environmentally sustainable development. The challenge of the document and guidelines is to critically link the implementation framework with statutory bodies namely, the National Environmental Management Authority (NEMA), Kenya Wildlife Service (KWS), Kenya Forestry Service (KFS); the National Environment Complaints Committee (NPCC) and the National Environmental Tribunal (NET).

4.1.3 Agricultural Sector Transformation and Growth Strategy

64. The Agricultural Sector Transformation and Growth Strategy (ASTGS) 2019-2029 sets out to implement the Kenya Vision 2030 in the agricultural sector. It identifies two strategic thrusts for its vision of a food-secure and prosperous nation, i.e., increasing productivity, commercialization and competitiveness of agricultural commodities and enterprises and developing and managing the key factors of production. It commits government to implement “National Climate Change Response Strategy” which would include mainstreaming of early warning and mitigation systems, identification of priorities for climate adaptation and mitigation with specific measures for vulnerable groups, awareness creation, conducting of periodic climate change threat and risk assessments and their mitigation as well as research and development in the area.

4.1.4 National Climate Change Strategy

65. The Strategy sets out to reduce the vulnerability to impacts of climatic change and to catalyze transition to cleaner, lower emission and less carbon-intensive development in the country. The Government commits in the Strategy to enhance climatic resilience and adaptive capacity and put in place mechanisms for sustainable utilization of natural resources. The Strategy directs integration of climate change risk and vulnerability assessment in the Environment Impact Assessment and the Strategic Environment Assessment. It lays the blame for emissions of green-house gases largely to agriculture, more so livestock, and in land-use change and suggests deterrent taxation and friendly regulatory environments for low carbon-pollutant activities.

4.1.5 Kenya Climate Smart Agriculture Strategy-2017-2026

66. The overall objective of this strategy is to build resilience and minimize emissions from agricultural farming systems for enhanced food and nutritional security and improved livelihoods. FSRP is designed to address the objectives of this strategy, through development, validation and dissemination of CSA TIMPs with the aim of attaining triple wins of increased productivity, build resilience and reducing greenhouse gases.

4.1.6 National Agricultural Research Systems Policy

67. This policy provides the foundation for research in the agricultural sector. It aims at achieving reforms in the Kenyan agricultural research systems to support the development of an innovative, commercially oriented, and modern agricultural sector. The Policy aims at achieving objectives that include problem-solving and impact driven research agenda, fast-tracking national adoption of available technologies and knowledge and enhancing capacity to access and adopt knowledge and appropriate technologies available world-wide. It directs re-focusing of research to solve problems, the harnessing of indigenous knowledge while upholding professional ethics and the adoption of innovative methods of knowledge transfer.

4.1.7 National Productivity Policy

68. The Sessional Paper Number 3 of 2013 on the National Productivity Policy responds to low productivity and directs corrective measures. The Policy aims to achieve accelerated economic growth through high investment and productivity growth, being the incremental growth of 5% per year up from current less than 1%. It also aims to increase productivity awareness and consciousness level in the country from the current level of about 1 percent to 60 percent of the population. It proposes training programmes outside the formal education system for skills transfer to the labor force. It will also support technological change and innovation.

4.1.8 National Food and Nutritional Security Policy

69. The Sessional Paper Number 1 of 2012 on the National Food and Nutritional Security Policy aims at achieving safe food in sufficient quantity and quality to satisfy the nutritional needs for optimal Agricultural Policies and Legislation: The Policy directs the promotion of sustainable food production systems with particular attention to increasing soil fertility, agro-biodiversity, organic methods and proper range and livestock management practices. The Policy also directs that different approaches to food production are adopted based on the agro-ecological diversity which should include promoting.

4.1.9 Kenya National Youth Policy 2018

70. The policy aimed at ensuring that youth play their role in the development of the country. The policy goal is to promote youth participation in community and civic affairs to ensure that youth programmes are youth centered. The policy seeks to promote not only the rights of the youth, but also encourage them to understand and fulfill their responsibilities, to the development of society.

4.1.10 National Gender Policy 2011

71. The policy articulates the policy approach of gender mainstreaming and empowerment of women at the ministry level. It seeks to have a society where women, men, children, and persons with disabilities enjoy equal rights, opportunities, and a high quality of life. This report has in depth addressed matters to do with gender and development and in the concession period the entire project period the project shall be governed under this principle.

4.1.11 National Gender and Development Policy

72. The Policy recognizes that traditional development theories have not facilitated the participation of women in strategic areas and positions of power and influence because they are based on traditional assumptions of the roles and responsibilities of women and men. The approach also recognizes that without quality gender disaggregated data, the

planning and programming process cannot be efficient and productive. With regard to the environment, the policy advocates for programmes that take into consideration environment and natural resource management issues that concern women, men, girls and boys.

4.2 Relevant Legislations

4.2.1 Kenyan Constitution 2010 Provisions

73. Kenya has a National Constitution promulgated on the 27th of August 2010, and which takes supremacy over all aspects of life and activity in the Country. With regard to environment, the Constitution states as follows: -

74. In Sections 69 and 70, the Constitution has inter alia identified National Obligations in respect of the environment and Enforcement of Environmental Rights respectively as follows:

75. Section 69 (1): The State shall—

- i. Ensure sustainable exploitation, utilization, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits;
- ii. Work to achieve and maintain a tree cover of at least ten per cent of the land area of Kenya;
- iii. Protect and enhance intellectual property in, and indigenous knowledge of, biodiversity and the genetic resources of the communities;
- iv. Encourage public participation in the management, protection and conservation of the environment;
- v. Protect genetic resources and biological diversity;
- vi. Establish systems of environmental impact assessment, environmental audit and monitoring of the environment;
- vii. Eliminate processes and activities that are likely to endanger the environment; and
- viii. Utilize the environment and natural resources for the benefit of the people of Kenya.

76. Section 69 (2) States that: -Every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.

77. Section 70 provides for enforcement of environmental rights thus:

- a) If a person alleges that a right to a clean and healthy environment recognized and protected under Article 42 has been, is being or is likely to be, denied, violated, infringed or threatened, the person may apply to a court for redress in addition to any other legal remedies that are available in respect to the same matter.
- b) On application under clause (1), the court may make any order, or give any directions, it considers appropriate—
 - i. To prevent, stop or discontinue any act or omission that is harmful to the environment;

- ii. To compel any public officer to take measures to prevent or discontinue any act or omission that is harmful to the environment; or
- iii. To provide compensation for any victim of a violation of the right to a clean and healthy environment.

c) For the purposes of this Article, an applicant does not have to demonstrate that any person has incurred loss or suffered injury.

78. Essentially, the new Constitution has embraced and provided further anchorage to the spirit and letter of EMCA 1999 and EMCA (amendment) Act, 2015 whose requirements for environmental protection and management have largely informed Sections 69 through to In Section 72 however, the new constitution allows for enactment of laws towards enforcement of any new provisions of the Supreme Law.

4.2.2 Environment Management and Coordination Act (No. 8 of 1999), EMCA (Amendment) Act 2015

79. This is an Act of Parliament providing for the establishment of an appropriate legal and institutional framework for the management of the environment and for matters connected therewith and incidental thereto. This Act is divided into 13 Parts, covering main areas of environmental concern as follows: Preliminary (I); General principles (II); Administration (III); Environmental planning (IV); Protection and Conservation of the Environment (V), Environmental impact assessments (EIA), audits and monitoring (VI); Environmental audit and monitoring (VII); Environmental quality standards (VIII); Environmental Restoration orders, Environmental Easements (IX); Inspection, analysis and records (IX); Inspection Analysis and Records (X); International Treaties, Conventions and Agreements (XI) National Environment Tribunal (XII); Environmental Offences (XIII). The Act provides for the setting up of the various ESIA Regulations and Guidelines which are discussed below:

4.2.3 Environmental (Impact Assessment and Audit) (Amendment) Regulations 2019

80. The Environmental (Impact Assessment and Audit) (Amendment) Regulations, 2019 states that these Regulations may be cited as the Environmental (Impact Assessment and Audit) (Amendment) Regulations, 2019. L. N. 101/2003. The “Regulations should apply to all policies, plans, programmes, projects and activities specified in Part III and V of the Regulations” and lists the guidelines of undertaking, submission and approval of the ESIA Reports, a key requirement outlined in this ESMF.

81. The Environmental (Impact Assessment and Audit) Regulations, 2003 are amended by deleting regulation 7 and substituting therefore the following new regulation — Preparation of project report. 7. (1) Every proponent undertaking a project specified in the Second Schedule of the Act as being a low-risk project or a medium risk project, shall submit to the Authority a summary project report (SPR) of the likely environmental effect

of the project. (2) The project report submitted under sub regulation (1) shall specify — (a) the nature of the project; (b) the location of the project including — (i) proof of land ownership, where applicable; (ii) any environmentally sensitive area to be affected; (iii) availability of supportive environmental management infrastructure; and (iv) conformity to land use plan or zonation plan; and (c) potential environmental impacts of the project and the mitigation measures to be taken during and after implementation of the project. (3) Upon receipt of the project report under sub regulation (1), the Authority shall, within five days, undertake screening and assessment thereof for completeness and— (a) where the Authority considers that the proposed project may have a significant Kenya Subsidiary Legislation, 2019 203 adverse environmental impact, it shall recommend that the proponent should prepare and submit a comprehensive project report; or (b) where the Authority considers that the proposed project is not likely to have any significant adverse environmental impact, it shall exempt the proponent from submitting a comprehensive project report and issue the proponent with an approval to proceed with the project.

82. The comprehensive project report (CPR) prepared pursuant to a recommendation under sub regulation (3) (a), shall specify - (a) the nature of the project; (b) the location of the project including — (i) proof of land ownership; (ii) the Global Positioning System coordinates; and (iii) the physical area that may be affected by the project's activities; (c) the activities that shall be undertaken during the project construction, operation and decommissioning phases; (d) a description of the international, national and county environmental legislative and regulatory frameworks on the environment and socio-economic matters; (e) the preliminary design of the project; (f) the materials to be used, products and byproducts, including waste to be generated by the project and the methods of their disposal; (g) the potential environmental impacts of the project and the mitigation measures to be taken during and after implementation of the project; (h) an analysis of available alternatives including an alternative - (i) project site; (ii) design; (iii) technologies and Kenya Subsidiary Legislation, 2019 (iv) processes and the reasons for preferring the proposed site, design, technologies and processes; (i) an action plan.

4.2.4 Environmental Management and Coordination (Waste Management) Regulations 2006

83. These are described in Legal Notice No. 121 of the Kenya Gazette Supplement No. 69 of September 2006. These Regulations apply to all categories of waste as provided in the Regulations. These include:

- Industrial wastes;
- Hazardous and toxic wastes;
- Pesticides and toxic substances;
- Biomedical wastes; and
- Radio-active substances.

84. The proposed project will have to abide by these regulations in dealing with waste management, especially the provisions of wastes which may be generated during the construction, operation and decommissioning phases of the sub-project investments including pesticide wastes.

4.2.5 Environmental Management and Coordination, (Water Quality) Regulations 2006

85. These are described in Legal Notice No. 120 of the Kenya Gazette Supplement No. 68 of September 2006. These Regulations apply to drinking water, water used for agricultural purposes, water used for recreational purposes, water used for fisheries and wildlife and water used for any other purposes. This includes the following:

- *Protection of sources of water for domestic use;*
- *Water for industrial use and effluent discharge;*
- *Water for agricultural use.*

86. These Regulations outline:

- a) *Quality standards for sources of domestic water;*
- b) *Quality monitoring for sources of domestic water;*
- c) *Standards for effluent discharge into the environment;*
- d) *Monitoring guide for discharge into the environment;*
- e) *Standards for effluent discharge into public sewers;*
- f) *Monitoring for discharge of treated effluent into the environment.*

87. In fulfilling the requirements of the regulations, the project proponent will have to undertake monitoring of both domestic water and wastewater and ensure compliance with the acceptable discharge standards.

4.2.6 Environmental Management and Coordination, Conservation of Biological Diversity (BD) Regulations 2006

88. These regulations are described in Legal Notice No. 160 of the Kenya Gazette Supplement No. 84 of December 2006. These Regulations apply to conservation of biodiversity which includes Conservation of threatened species, Inventory and monitoring of BD and protection of environmentally significant areas, access to genetic resources, benefit sharing and offenses and penalties.

4.2.7 Environmental Management and Coordination (Wetlands, Riverbanks, Lake Shores and Sea Shore Management) Regulations 2009

89. These regulations provide for the protection and management of wetlands, riverbanks, lakeshores and sea-shore management and detail guidelines on the same. The project will not support any investments that contravene these regulations.

4.2.8 Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations, 2009

90. These regulations prohibit making or causing any loud, unreasonable, unnecessary, or unusual noise which annoys, disturbs, injures or endangers the comfort, repose, health or safety of others and the environment. It also prohibits the contractor from excessive vibrations which annoy, disturb, injure, or endanger the comfort, repose, health or safety of others and the environment or excessive vibrations which exceed 0.5 centimeters per second beyond any source property boundary or 30 meters from any moving source. Under the regulation the contractor will be required to undertake daily monitoring of the noise levels within the project area during construction period to maintain compliance.

4.2.9 Occupational Health and Safety Act, 2007

91. This is an Act of Parliament to provide for the safety, health and welfare of workers and all persons lawfully present at workplaces, to provide for the establishment of the National Council for Occupational Safety and Health and for connected purposes. The Act has the following functions among others:

- *Secures safety and health for people legally in all workplaces by minimizing exposure of workers to hazards (gases, fumes and vapors, energies, dangerous machinery/equipment, temperatures, and biological agents) at their workplaces.*
- *Prevents employment of children in workplaces where their safety and health is at risk.*
- *Encourages entrepreneurs to set achievable safety targets for their enterprises.*
- *Promotes reporting of work-place accidents, dangerous occurrences and ill health with a view to finding out their causes and preventing similar occurrences in future.*
- *Promotes creation of a safety culture at workplaces through education and training in occupational safety and health.*

92. Failure to comply with the OSHA, 2007 attracts penalties of up to KES 300,000- or 3-months jail term or both or penalties of KES 1,000,000-or 12-months jail term or both for cases where death occurs and is in consequence of the employer. The Occupational Safety and Health Act (OSHA) 2007 repealed the Factories and Other Places of Work Act. Anything done under the provisions of the Factories and Other Places of Work Act including subsidiary legislation issued before the commencement of the OSHA 2007 shall be deemed to have been done under the provisions of this Act.

93. The Factories and Other Places of Work Act had over the years passed several subsidiary rules and regulations for effective implementation of the Act. All shall, as long as it is not inconsistent with OSHA 2007 remain in force until repealed or revoked by subsidiary legislation under the provisions of OSHA 2007 and shall for all purposes be deemed to have been made under this Act.

94. These regulations include:

- *The Factories (Cellulose Solutions) Rules 1957;*
- *The Factories (Wood Working Machinery) Rules 1959;*

- *The Factories (Dock) Rules 1962;*
- *The Factories (Eye Protection) Rules 1978;*
- *The Factories (Electric Power) (Special) Rules 1978;*
- *The Factories (Building Operations and Works of Engineering Construction) Rules 1984;*
- *The Factories and Other Places of Work (Health & Safety Committees) Rules 2004;*
- *The Factories and Other Places of Work (Medical Examination) Rules 2005;*
- *The Factories and Other Places of Work (Noise Prevention and Control) Rules 2005;*
- *The Factories and Other Places of Work (Fire Risk Reduction) Rules 2007;*
- *The Factories and Other Places of Work (Hazardous Substances) Rules 2007.*

95. The scope of OSHA 2007 has been expanded to cover all workplaces including offices, schools, academic institutions, and plantations. It establishes codes of practice to be approved and issued by the Director, Directorate of Occupational Safety and Health Services (DoSHS) for practical guidance of the various provisions of the Act.

96. Other parameters within the Act relevant to the project include:

- i) *Duties of employers, owners or occupiers of workplace;*
- ii) *Establishment of safety and health committees;*
- iii) *Annual safety and health audit of workplaces;*
- iv) *Safety and Health obligations for persons who may come to premises for work and are not employees of that particular workplace;*
- v) *Reporting of any accident, dangerous occurrence or occupational poisoning caused in the workplace to the area Occupational Health and Safety Office. These incidents should be entered in the General Register. In case of fatal accident information to the area Safety and Health Office should be within 24 hrs and a written notice to the same within 7 days;*
- vi) *The duties of manufactures, designers, importers and suppliers to ensure that all articles and substances for use at workplace are safe and will not cause injury to health and the environment;*
- vii) *Duties of self-employed persons;*
- viii) *Duties of employed persons;*
- ix) *Prohibition of interference or misuse of any appliance, convenience or any other facility provided to secure Safety, Health and Welfare at work by any person (occupier, self-employed person or employed);*
- x) *The administration of the Act is the responsibility of a Director and other appointed and gazetted officials (Occupational Health and Safety Officers);*
- xi) *The registration of all workplaces by the Director Directorate of Occupational Health and Safety (DOHS) forming the basis of his work statistics;*
- xii) *Machinery safety to include:*
 - *Safe use of machinery, plant and equipment;*
 - *Prime makers and transmission machines;*
 - *The maintenance, construction of fencing safeguards; and The statutory requirements of various machines, plants and equipment (hoists and lifts, chains and*

ropes, cranes, steam receivers and containers, air receivers, cylinders for compressed liquefied and dissolved gases and refrigeration plants).

xiii) *Chemical safety including:*

- *Handling, transportation and disposal of chemicals and other hazardous substances;*
- *Importance of Materials Safety Data Sheets (MSDS);*
- *Labeling and marking of chemical substances;*
- *Classification of hazardous chemicals and substances;*
- *Establishment and adoption of exposure limits on hazardous substances in a workplace.*
- *Control of air pollution, noise and vibrations;*
- *Redeployment of medical advice.*

97. The project will guide the contractors and proponents on how to comply with these regulations

4.2.10 Public Health Act Chapter 242, 2012

98. The Public Health Act provides for the protection of human health through prevention and guarding against introduction of infectious diseases into Kenya from outside, to promote public health and the prevention, limitation or suppression of infectious, communicable or preventable diseases within Kenya, to advise and direct local authorities in regard to matters affecting the public health to promote or carry out researches and investigations in connection with the prevention or treatment of human diseases. This Act provides the impetus for a healthy environment and gives regulations on waste management, pollution and human health. The Public Health Act regulates activities detrimental to human health. The owner(s) of the premises responsible for environmental nuisances such as noise and emissions, at levels that can affect human health, are liable to prosecution under this act. An environmental nuisance is defined in the act as one that causes danger, discomfort or annoyance to the local inhabitants or which is hazardous to human health. This Act controls the activities of the project with regard to human health and ensures that the health of the workers and surrounding community is not jeopardized by the activities of the project such as water development.

4.2.11 Pest Control Products Act Chapter 346, 2012

99. This Act covers the use, application, importation, and trade in pest products. It includes regulation on:

- *Prescribing for the purposes of this Act the nomenclature of pests, classes and kinds of pests and pest control products;*
- *Prescribing the form in which applications for registration shall be made and the information to be furnished therewith;*
- *Respecting the registration of pest control products and establishments in which any*

- *pest control products are and led by manufacturers or dealers and prescribing the fees therefore, and respecting the procedures to be followed for the review of cases involving the refusal, suspension or cancellation of the registration of any such product or establishment;*
- *Prescribing the form, composition, and all other standards relating to the safe use of*
- *pest control products, including toxic residue effects;*
- *Respecting the manufacture or treatment of any pest control product to facilitate its*
- *recognition by change in coloration or other means;*
- *Respecting the standards for efficacy and safety of any pest control product;*
- *Respecting the manufacture, storage, distribution, display and use of any pest control*
- *product;*
- *Respecting the packaging, labeling and advertising of pest control products;*
- *Respecting the taking of samples and the making of analyses for the purposes and*
- *provisions of this Act;*
- *Prescribing the information to be supplied and the form of such information in respect*
- *of any pest control product that is to be imported into Kenya;*
- *Prescribing the circumstances and conditions under which pest control products that*
- *have met the requirements of the Cattle Cleansing Act may be deemed to be registered as prescribed under this Act;*

4.2.12 Pest Control Products (Licensing of Premises) Regulations, 1984

100. The Pest Control Products (Licensing of Premises) Regulations, 1984 [Section 15, L.N. 45/1984, L.N. 124/2006.] – Section 2 prohibits any person from using any premises for purposes of manufacturing, formulating, packaging, and storing pest control products without a license issued under these regulations.

4.2.13 Pest Control Products (Labeling, Advertising and Packaging) Regulations, 1984

101. The Pest Control Products (Labeling, Advertising and Packaging) Regulations, 1984 [L.N. 89/1984, L.N. 127/2006.] – address the design of pesticide packages (packaging and labeling). Regulation 3 requires all pest control products to bear a label which has been approved by the PCPB. In addition, the regulation specifies the information required on the label. Regulation 9 provides for cases where the physical properties of a pest control product may not be recognized when it is being used. In such circumstances the pest control product must be denatured by means of color, odor or other methods the PCPB may approve so as to provide a signal or warning of its presence. Regulation 11 specifies the conditions under which a pest control product shall be distributed. Regulation 13 specifies the technical requirements for packaging (e.g., packaging material shall be sufficiently durable and manufactured to contain the pest control product safely under practical conditions of storage, display and distribution). Regulation 14 states the general prohibitions (e.g., words stating, implying or inferring that a pest control product is

approved, accepted or recommended by the government shall not appear on a package or label in any advertisement respecting a pest control product).

4.2.14 Pest Control Products (Importation and Exportation) Regulations, 1984

102. The Pest Control Products (Importation and Exportation) Regulations, 1984 [L.N. 146/1984, L.N. 125/2006.] contain provisions specifically addressing the import and export of pesticides. Regulation 2 prohibits the importation and exportation of pest control products unless licensed. Regulations 4 and 5 establish the application process for a license in respect of importation or exportation of a pest control product and how the PCPB will deal with applications and issue of licenses respectively. Regulation 8 provides for instances where the PCPB may cancel or suspend a license (e.g., where the licensee has been convicted of an offense/has committed a breach of any of the terms or conditions of the license).

4.2.15 Pest Control Products (Disposal) Regulations, 2006

103. Pest Control Products (Disposal) Regulations, 2006-Regulation 2 provides that those disposing pesticides for commercial purposes must be in possession of a license, and the use of any pesticide disposal method must be approved by the PCPB. Further, the Guidelines for on-farm Disposal of Pesticide Wastes and Containers, PCPB prescribe best practice when it comes to the disposal of unwanted or unused pesticide concentrates (obsolete stock). Further, guidelines for on-farm disposal of pesticide wastes and containers, PCPB. The guidelines prescribe that pesticide containers and packaging materials should never be used to contain water, food or feed stuffs for human or animal use. Additionally, while cleaning containers, the following guidelines must be noted:

- *wear protective clothing*
- *avoid spillages and leaks*
- *completely empty containers and packages before disposing*
- *take care to avoid splashing or creating dust*
- *place cleaned containers in a dry secure compound prior to disposal*
- *At the container disposal site:*
 - ~ Containers should be punctured after rinsing to make them unusable, and
 - ~ crushed to reduce bulk
 - ~ Combustible packaging materials should be burnt in a licensed incinerator. If not
 - ~ possible, containers should be made unusable, reduced in bulk and buried
 - ~ Integrity of containers to be buried should be destroyed
 - ~ Aerosols should not be punctured

4.2.16 Pharmacy and Poisons Act Chapter 244, 2012

104. **The Pharmacy and Poisons Act** contains provisions addressing the sale of poisons for agriculture and horticulture. Section 28 prescribes the manner in which a person intending to trade in pesticides may apply to the Pharmacy and Poisons Board for a license to deal with pesticides. The section further prescribes instances when the Board may refuse to issue or renew or may revoke a license to trade in pesticides. Section 13 prescribes the safe custody of poisons. The section provides that no person engaged in a trade, business or profession shall knowingly have in their possession or under their control a poison.

4.2.17 Employment Act, 2007

105. This Act declares and defines the fundamental rights of employees; minimum terms and conditions of employment; to provide basic conditions of employment of employees; and to regulate the employment of children, among other rights. Key sections of the Act elaborate on the employment relationship; protection of wages; rights and duties in employment; termination and dismissal and protection of children, among others. This Act will guide the management of workers, especially during the construction period.

106. While the EMCA supersedes all other environmental legislation, numerous other laws and regulations in addition to those described above influence the various aspects and activities of the Project, which include the following among others:

- Trade License Act, Cap 497;
- Penal Code Cap 63 (rev. 1985) ;
- Standards Act, Chapter 496 (1974);
- Work Injury and Benefits Act (2007);
- Food, Drugs and Chemical Substances Act, Cap 254 (rev 1992);
- Use of Poisonous Substances Act, Cap 247(rev. 1983);
- Transport Licensing Board Act (Cap. 404).

4.2.18 HIV and AIDS Prevention and Control Act 2011

107. The object and purpose of this Act is to (a) promote public awareness about the causes, modes of transmission, consequences, means of prevention and control of HIV and AIDS; (b) Extend to every person suspected or known to be infected with HIV and AIDS full protection of his human rights and civil liberties by (i) prohibiting compulsory HIV testing save as provided in this Act; (ii) guaranteeing the right to privacy of the individual; (iii) outlawing discrimination in all its forms and subtleties against persons with or persons perceived or suspected of having HIV and AIDS; (iv) ensuring the provision of basic health care and social services for persons infected with HIV and AIDS; (c) promote utmost safety and universal precautions in practices and procedures that carry the risk of

HIV transmission; and (d) positively address and seek to eradicate conditions that aggravate the spread of HIV infection.

108. Section 7 of the Act focuses on HIV and AIDS education in the workplace and states that (1) The Government shall ensure the provision of basic information and instruction on HIV and AIDS prevention and control to (a) employees of all Government Ministries, Departments, authorities and other agencies; and (b) employees of private and informal sectors. (2) The information provided under this section shall cover issues such as confidentiality in the workplace and attitudes towards infected employees and workers.

4.2.19 Sexual Offences Act 2006

109. An Act of Parliament that makes provision about sexual offences, aims at prevention and the protection of all persons from harm from unlawful sexual acts, and for connected purposes. Section 15, 17 and 18 below are mainly focused on sexual offenses against minor (children).

110. Under Section 15 it is an offense for Any person who -

- a) knowingly permits any child to remain in any premises, for the purposes of causing such child to be sexually abused or to participate in any form of sexual activity or in any obscene or indecent exhibition or show;
- b) acts as a procurer of a child for the purposes of sexual intercourse or for any form of sexual abuse or indecent exhibition or show;
- c) induces a person to be a client of a child for sexual intercourse or for any form of sexual abuse or indecent exhibition or show, by means of print or other media, oral advertisements or other similar means;
- d) takes advantage of his influence over, or his relationship to a child, to procure the child for sexual intercourse or any form of sexual abuse or indecent exhibition or show;
- e) threatens or uses violence towards a child to procure the child for sexual intercourse or any form of sexual abuse or indecent exhibition or show;
- f) intentionally or knowingly owns, leases, rents, manages, occupies or has control of any movable or immovable property used for purposes of the commission of any offence under this law

111. Under Section 17 it is an offence for Any person who -

- a) intentionally causes or incites another person to become a prostitute; and
- b) intentionally controls any of the activities of another person relating to that person's prostitution; and does so for or in expectation of gain for him or herself or a third person, is guilty of an offence and is liable upon conviction to imprisonment for a term of not less than five years or to a fine of five hundred thousand shillings or to both.

112. Under Section 18 it is an offense for Any person who -

- (l) Any person who intentionally or knowingly arranges or facilitates travel within or across
- a) the borders of Kenya by another person and either -
 - b) intends to do anything to or in respect of the person during or after the journey in any part of the world, which if done will involve the commission of an offense under this Act; or
 - c) believes that another person is likely to do something to or in respect of the other person during or after the journey in any part of the world, which if done will involve the commission of an offence under this Act, is guilty of an offence of trafficking for sexual exploitation.
 - d) A person guilty of an offense under this section is liable upon conviction, to imprisonment for a term of not less than fifteen years or to a fine of not less than two million shillings or to both.

4.2.20 Labor Relations Act 2012

113. An Act of Parliament to consolidate the law relating to trade unions and trade disputes, to provide for the registration, regulation, management and democratization of trade unions and employers organizations or federations, to promote sound labor relations through the protection and promotion of freedom of association, the encouragement of effective collective bargaining and promotion of orderly and expeditious dispute settlement, conducive to social justice and economic development and for connected purposes. This Act in Section II Part 6 provides for freedom of employees to associate; section 7 provides for protection of rights of employees; Part 9 provides for adjudication of disputes and Part 10 provides for protection of the employees to hold strikes and lockouts.

4.2.21 National Gender and Equality Commission Act 2011

114. The over-arching goal for NGENC is to contribute to the reduction of gender inequalities and the discrimination against all; women, men, persons with disabilities, the youth, children, the elderly, minorities and marginalized communities.

4.2.22 Persons with Disabilities Act, 2014

115. This Act of Parliament prohibits discrimination in employment under section 15, education under section 18, accessibility, and mobility under section 21. Section 16 (1) obligates all private employer's persons with a disability with the required skills or qualifications either as a regular employee, apprentice or learner shall be entitled to apply for a deduction from his taxable income equivalent to twenty-five per cent of the total amount paid as salary and wages to such employee.

4.2.23 Children Act, 2010

116. The Children Act is an act of parliament that addresses provision for parental responsibility, fostering, adoption, custody, maintenance, guardianship, care and protection of children; provision for the administration of children's institutions; and giving effect to the principles of the Convention on the Rights of the Child and the African Charter on the Rights and Welfare of the Child.

4.2.24 National Museums and Heritage Act 2006

117. The National Museums and Heritage Act 2006 is an act of Parliament that consolidates the law relating to national museums and heritage; to provide for the establishment control, management and development of national museums and the identification, protection, conservation and transmission of the cultural and natural heritage of Kenya; to repeal the Antiquities and Monuments Act and the National Museums Act.

4.2.25 Fire Arms Act

118. The Firearms Act is an act of parliament established for regulating, licensing, and controlling the manufacture, importation, exportation, transportation, sale, repair, storage, possession and use of firearms, ammunition, air guns and destructive devices.

4.2.26 National Police Service Act 2014

119. The National Police Act 2014 was established to Regulate and coordinate duties to be performed by police officers; regulating the granting of leave to police officers; prescribing arrangements and procedures for providing, assisting in or coordinating staff development programmes; and. the employment of civilian staff within the Service.

4.2.27 National Government Coordination Act No. 1 of 2013

120. The National Government Coordination Act was established to ensure administrative and institutional framework for coordination of National government functions at the national and county levels of governance; to give effect to Articles 131(1) (b) and 132 (3) (b) of the Constitution.

4.2.28 Independent Policy Oversight Authority

121. The Independent Policing Oversight Authority was established through an Act of Parliament published in November 2011 to provide for civilian oversight over the work of the police in Kenya. The inaugural Board was sworn into office in June 2012.

4.3 Relevant Institutions responsible for Environmental issues

4.3.1 National Environment Management Authority

122. The responsibility of the National Environmental Management Authority (NEMA) is to exercise general supervision and coordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of all policies relating to the environment.

4.3.2 County Environmental Committees

123. The County Environmental Committees also contribute to decentralized environmental management and enable the participation of local communities. These environmental committees consist of the following:

- i) Representatives from all the ministries;*
- ii) Representatives from local authorities within the county*
- iii) Two farmers / pastoral representatives;*
- iv) Two representatives from NGOs involved in environmental management in the county;*
- v) A representative of each regional development authority in the province/district.*

4.3.3 National Environment Complaints Committee on Environment

124. The National Environmental Complaints Committee (NECC) was established under Section 31 of the Environmental Management and Co-ordination Act, 1999. It was formerly known as the Public Complaints Committee (PCC), but its name changed in the EMCA (Amendment) No. 5 of 2015). It is an important institution in the assessment of the condition of the environment in Kenya. It plays an important role in the facilitation of alternative dispute resolution mechanisms relating to environmental matters. The NECC makes recommendations to the Cabinet Secretary and thus contributes significantly to the formulation and development of environmental policy.

4.3.4 National Environmental Tribunal

125. The NET is established under Section 125 of EMCA for the purpose of hearing appeals from administrative decisions by organs responsible for enforcement of environmental standards. An appeal may be lodged by a project proponent upon denial of an EIA license or by a local community upon the grant of an EIA license to a project proponent. NEMA may also refer any matter that involves a point of law or is of unusual importance or complexity to NET for direction. The proceedings of NET are not as stringent as those in a court of law and NET shall not be bound by the rules of evidence as set out in the Evidence Act. Upon the making of an award, NET's mandate ends there as it does not

have the power to enforce its awards. EMCA provides that any person aggrieved by a decision or award of NET may within 30 days' appeal to the High Court.

4.3.5 Environment and Land Court

126. The Kenya Constitution establishes an Environment and Land Court. Article 162 of the constitution provides for the creation of specialized courts to handle all matters on land and the environment. Such a court will have the status and powers of a High Court in every respect. Article 159 on the principles of judicial authority, indicates that courts will endeavor to encourage application of alternative dispute resolution mechanisms, including traditional ones, so long as they are consistent with the constitution. Section 20, of the Environment and Land Court Act, 2011 empowers the Environment and Land Court, on its own motion, or on application of the parties to a dispute, to direct the application of including traditional dispute resolution mechanisms (Table 4.1).

Table 18: Other institutions

Agency	Role	Specific functions list (relating to pest and pesticide management)
Ministry of Agriculture & Livestock Development		
Pest Control Products Board (PCPB)	➤ Regulates the importation, exportation, manufacture, distribution, transportation, sale, disposal and use of products used for the control of pests and mitigate potential harmful effects to the environment.	<ul style="list-style-type: none"> ➤ Enhance compliance of pest control products to set standards and facilitate trade. ➤ Ensure safe, quality and efficacious pest control products are available to users ➤ Enhance responsible use of pest control products and food safety ➤ Improve management of pest control products lifecycle
KALRO	➤ Research in plant health issues related to pesticide	➤ Efficacy trials of agricultural pesticides for field and stored crops and fertilizers
Ministry of Health		
Directorate of Occupational Safety and Health Services (DoSHS)	➤ Ensures safety, health and welfare of workers predisposed to pesticides.	➤ Identify, evaluate and control biological and chemical factors in the work environment which may affect the safety and health of employed persons and the general environment.

4.4 Institutional Responsibilities with respect to Social Issues

127. The constitution provides for a number of institutions to address issues of vulnerable and marginalized groups including grievance redress mechanisms. Key constitutional mechanisms for redress of issues related to marginalization include the (a) Commission on Administrative Justice-Office of the Ombudsman; (b) National Land Commission; and (c) Committee on Revenue Allocation.

4.4.1 Commission on Administrative Justice-Office of the Ombudsman

128. Kenya has a formal Feedback and Complaints Handling Mechanism. The Commission is the national/constitutional stakeholder instrument for grievance redress. Its mandate is to receive and address complaints against public officers and public institutions to improve service delivery. Three types of complaints can be made to the office of the Ombudsman including: (i) Citizen against State/public officers and institutions; (ii) Public officers against fellow public officers; and (iii) Public institutions against other public institutions. Table 4-2 below provides the steps and process for feedback and complaints redress by the Ombudsman. The Ombudsman has a three step and time bound mechanism for feedback and grievance redress, as shown below.

Table 19: Feedback and Complaints Redress by the CAJ

Step 1	<p>Complainant fills in a Complaint Form</p> <ul style="list-style-type: none"> • Complaint is assessed for compliance with CAJ Mandate; • If within mandate, CAJ commences inquiries and complainant is issued with copy of communication – CAJ 2 [Sec. 43]; • If NOT within CAJ mandate, Complainant is advised accordingly and/or referred to appropriate government agencies; • If a response is not received from the respondent after 14 working days, CAJ sends a first reminder giving the respondent 7 days to comply; • If no response is received after this, a final reminder of 7 days is sent; • If there is still no response after 28 days, summonses are issued to the respondent in line with [Sec. 27(a)].
Step 2	<p>If after the summonses the respondent still fails to comply, the Ombudsman proceeds to:</p> <ul style="list-style-type: none"> • Determines the complaint in the absence of the respondent; • Institutes legal proceedings against the respondent [according to Sec. 52]; • Cites the respondent as an unresponsive State or Public Office or Officer, and/or declares such State or Public Officer to be unfit to serve in the Public Service;

Step 3	<p><i>How the Ombudsman undertakes grievance redress action:</i> In resolving a complaint, the Ombudsman may:</p> <ul style="list-style-type: none"> • Conduct investigations according to articles [A.59 (2)(i)] [Sec 8 b)] [A.252(1)(g)] [Sec. 53 (1)]; • Demand and obtain information or documents [S.26 (d)]; • Conduct an inquiry [A.252(1)(g)] • Undertake mediation, negotiation and conciliation [A.252 (1) (b)]; • Constitute a hearing panel; • Invite or summon any person or persons to attend to the Commission [S.26 (f)]; • Obtain orders from the Court authorizing Searches or Seizures [Sec.26 (e)]. • Obtain warrants of arrest for breach of any summons or orders of the Commission.
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4.4.2 National Gender Equality Commission

129. National Gender Equality Commission is a constitutional Commission established by an Act of Parliament in August 2011, as a successor commission to the Kenya National Human Rights and Equality Commission pursuant to Article 59 of the Constitution. NGEC derives its mandate from Articles 27, 43, and Chapter Fifteen of the Constitution; and section 8 of NGEC Act (Cap. 15) of 2011, with the objectives of promoting gender equality and freedom from discrimination. The over-arching goal for NGEC is to contribute to the reduction of gender inequalities and the discrimination against all; women, men, persons with disabilities, the youth, children, the elderly, minorities and marginalized communities

4.4.3 Kenya National Commission on Human Rights

130. The Kenya National Commission on Human Rights (KNCHR) is an autonomous national Human rights institution established under article 59 of the Constitution of Kenya 2010 with the core mandate of furthering the promotion and protection of human rights in Kenya. The Commission plays two key broad mandates;

- It acts as a watchdog over the Government in the area of human rights.
- Provides key leadership in moving the country towards a human rights state.

131. The main goal of KNCHR is to investigate and provide redress for human rights violations, to research and monitor the compliance of human rights norms and standards, to conduct human rights education, to facilitate training, campaigns and advocacy on human rights as well as collaborate with other stakeholders in Kenya.

4.5 World Bank Group EHS Guidelines

132. The Environmental Health and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). The EHS Guidelines contain the performance levels and measures that are normally acceptable to the WB Group, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology. The EHS General Guidelines remain relevant to this project and were utilized in the development of the ESMF and IPMP. Sub project IPMPs will during implementation include the EHS General guidelines that are available at www.ifc.org/ehsguidelines.

133. World Bank Guidelines on Public Consultations and Stakeholder Engagement in World Bank Supported operations. The rise of communicable diseases in some project counties has led to development of procedures and guidelines by the Ministry of Health to reduce spread of outbreak. The Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings will be employed in this project.

4.5.1 International Environmental and Social Management Requirements

134. Kenya is a signatory to several international treaties and conventions and guidelines that are relevant to this project as described below.

4.5.2 Convention on Biological Diversity

135. 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 program is expected to conserve biodiversity, especially the rare and endangered species in the project area and its environs. In addition, the United Nations Convention on Biological Diversity (CBD) provides a regulatory framework for the conservation of biological resources at the international level.

4.5.3 International Plant Protection Convention (IPPC) of FAO, 1952

136. The IPPC is an international treaty to secure action to prevent the spread and introduction of pests of plants and plant products, and to promote appropriate measures for their control.

4.5.4 Basel Convention on the Control of Trans boundary Movements of Hazardous Wastes and their Disposal, 1998

137. The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Its scope of application covers a wide range of wastes defined as “hazardous wastes” based on their origin and/or composition and their characteristics, as well as two types of wastes defined as “other wastes”- household waste and incinerator ash. Based on the concept of prior informed consent, it requires that, before and export may take place, the authorities of the State of export notify the authorities of the prospective states of import and transit, providing them with detailed information on the intended movement. The movement may only proceed if and when all States concerned have given their written consent (articles 6 and 7). The Basel Convention also provides for cooperation between parties, ranging from exchange of information on issues relevant to the implementation of the Convention to technical assistance, particularly to developing countries (articles 10 and 13).

4.5.5 Bamako Convention, 1992

138. The Bamako Convention is a treaty of African nations prohibiting the import into Africa of any hazardous waste. The convention came into force in 1998 and includes the need to dispose of waste in an environmentally sound manner.

4.5.6 United Nations Framework Convention on Climate Change, 1992

139. 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.

4.5.7 FAO Guidelines on Good Practice for Ground Application of Pesticides, 2001

140. The guidelines are aimed at decision-makers, managers, field supervisors and spray operatives. However, it must be emphasized that in some countries, legislation is already in place to control safe and efficient pesticide use and application. Accordingly, local legislation, or voluntary codes must be the first point of reference with this set of guidelines offered as additional information. This is an important point, as compliance with local legislation may have legal significance in the event of a claim against the poor field performance of a pesticide.

141. The following are the ILO Conventions and an indication of their ratification status:

- a) Freedom of Association and Protection of the Right to Organize Convention, 1948 (No. 87). This is about freedom of association which Kenya has not yet ratified.

- b) Right to Organize and Collective Bargaining Convention, 1949 (No. 98). This was ratified in Kenya in 1964 and it is also about freedom of Association.
- c) Forced Labor Convention, 1930 (No. 29) (and its 2014 Protocol) – Kenya ratified this convention on forced labor in 1964.
- d) Abolition of Forced Labor Convention, 1957 (No. 105) - This is also on forced labor and ratified in Kenya in 1964.
- e) Minimum Age Convention, 1973 (No. 138) – This is a convention on child labor on age, and it was ratified in Kenya in 1979
- f) Worst Forms of Child Labor Convention, 1999 (No. 182) – This is a convention on child labor, and it was ratified in Kenya in 2001
- g) Equal Remuneration Convention, 1951 (No. 100). This is under discrimination and Kenya ratified the convention in 2001.
- h) Discrimination (Employment and Occupation) Convention, 1958 (No. 111) – The convention is also on discrimination and Kenya ratified it in 2001.

4.6 Permits /authorization required for subprojects

Table 20: Permits /authorization required for subprojects

Sub Project Type	Expected E&S Instrument	Authorization /permit
Dams, Large water pans, irrigation works, Boreholes, Market infrastructures.	CPR/ ESMP and IRP	-NEMA license -hydrogeological report for borehole -WRA permit for boreholes and Sand dams -Kenya Marketing association Permit
Small water pans, Market infrastructures, Hay barns, Livestock production infrastructures, Feeder roads, spot improvements, Chemical sprayings/ Pests control sub projects, Holding grounds, Quarantine yards, Pasture/seed multiplication centers, hydro-met infrastructure.	SPR / ESMP and IRP	-NEMA licence - WRA permit for boreholes and water pans sand dams -Kenya Marketing association Permit
Water ponds, Landscape rehabilitations, Hay barns, Pest control sub projects, vaccinations, Fodder and feed infrastructures, Disruptive Agriculture Technologies (DAT).	SPR and ESMP	-NEMA authorization

4.7 Relevant World Bank Environmental & Social Standards

142. This chapter describes the World Bank Environmental and Social Standards (ESS) that are applicable to this project. Table 5-1 shows the Banks Environmental and Social Standards that are applicable as a result of the proposed project which are elaborated in Table 5-2.

4.8 Applicable World Bank’s Environmental and Social Standards

143. The FSRP is a program targeting all the wards in the 13 counties in Kenya and is expected to have sub-project investments in each Ward for as long as the selected sites are feasible. However, the likely or potential locations of many of the proposed investments are unknown at this point in time. In order to reduce, minimize and mitigate adverse risks and impacts and undue harm of its development projects to the environment, all Bank-financed projects are guided by applicable environmental and social standards (ESS) under the Environmental and Social Framework (ESF).

Table 21: Applicable ESS

E & S Standards	Relevance
ESS1-Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS2-Labor and Working Conditions	Relevant
ESS3-Resource Efficiency and Pollution Prevention and Management	Relevant
ESS4-Community Health and Safety	Relevant
ESS5-Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
ESS6-Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant ⁹
ESS7-Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities	Relevant
ESS8-Cultural Heritage	Relevant
ESS9-Financial Intermediaries	Not relevant
ESS 10-Stakeholder Engagement and Information Disclosure	Relevant

⁹ This ESS is relevant, even though risks of impacts on sensitive habitats and/or protected areas is low, some of the subcomponent’s infrastructures can have an impact on the biodiversity namely the investments

4.8.1 Environmental and Social Assessment

- I44. To govern the process of determining a project's environmental and social category and the potential environmental and social assessment requirements: the scope of application; categorization; Environmental and Social Management Plans; climate change; variability, vulnerability assessment; public consultation; community impacts; appraisal and treatment of indigenous people and other vulnerable and marginalized groups; and grievance procedures
- I45. This safeguard instrument will mainstream environmental, climate change/climate justice, and social considerations into Kenya's Strategy Papers and County Integrated Development Plans (CIDPs). The broad objective is to identify and assess the environmental and social impacts and risks including those related to gender, climate change and vulnerability as outlined in the PAD. The assessment covers, in an integrated way, all relevant direct and indirect environmental and social risks and impacts, including those specifically covered in this ESMF.
- I46. Potential environmental impacts include physical (e.g., geology and soils, surface and groundwater resources, air resources and climate, excessive noise and vibration, prominent vista and aesthetic features), biological (e.g., flora, resident and migratory fauna, ecosystems, endemic, endangered and threatened species and their habitats and protected areas, poaching), socioeconomic and cultural (e.g., livelihood, resettlement, community social structure, gender, vulnerable groups, health, safety, cultural heritage sites, property, ecosystem services), and trans boundary and global impacts, including; greenhouse gas emissions and vulnerability to climate change and variability effects.
- I47. Appropriate potential adaptation and mitigation measures. The assessment also covers possible cumulative impacts: impacts on areas and resources that result from the proposed project in addition to impacts from other existing or planned developments, including from any associated investments, regardless of which entity undertakes those actions. Cumulative impacts can result from individually minor but collectively significant actions that take place over a period of time, especially application of agro-chemicals, micro-irrigation, and introduction of alien species.
- I48. The assessment also considers real alternatives to the project's counties/location/sites and/or design to avoid adverse impacts. And the mitigation strategies for reducing potential adverse impact if avoidance of the negative impact is not possible. To the extent possible, the assessment complies with the relevant legislation and standards applicable in the Kenyan and Counties jurisdictions, bearing in mind the equivalence of standards with those of the Bank, and it takes into consideration national or regional level projects that are under implementation or in preparation. The Bank intends that the assessment process could build on existing Kenyan systems for environmental, climate, and social risk management such as; systems and institutions covering resettlement, ecosystem restoration, biodiversity protection, pollution control, and labor standards.
- I49. The ESS required the project to take the assessment and the preparation of an Environmental and Social Management Plan (ESMP) in a manner that complies with

existing Kenyan systems for assessing and managing environmental risk, as well as with the WB's requirements. The ESMP need to be prepared with a realistic timeframe, incorporating the necessary organizational capacity (including further training requirements) and financial resources to address and manage the environmental and social risks that may occur during the full project cycle. When a project component or exact location remains uncertain, an ESMP cannot be developed, therefore, this Environmental and Social Management Framework (ESMF) has been developed to guide the identification, preparation, and appraisal of components and activities.

4.9 World Bank Group EHS Guidelines

150. The Environmental Health and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). The EHS Guidelines contain the performance levels and measures that are normally acceptable to the WB Group, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology. The EHS General Guidelines remain relevant to this project and were utilised in the development of the ESMF and IPMP. Sub project IPMPs will during implementation include the EHS General guidelines that are available at www.ifc.org/ehsguidelines

4.10 International Environmental and Social Management Requirements

151. Kenya is a signatory to several international treaties and conventions and guidelines that are relevant to this project as described below.

4.10.1 Convention on Biological Diversity

152. 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 program is expected to conserve biodiversity, especially the rare and endangered species in the project area and its environs. In addition, United Nations Convention on Biological Diversity (CBD) provides a regulatory framework for the conservation of biological resources at the international level.

4.10.2 United Nations Framework Convention on Climate Change

153. 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. In essence, the

locust thrives on vegetative and forage parts of plant and therefore depleting carbon sinks. Abating the invasion menace will not save vegetation cover but allow for rejuvenation of the damaged forage.

4.10.3 International Plant Protection Convention (IPPC) of FAO

154. The IPPC is an international treaty to secure action to prevent the spread and introduction of pests of plants and plant products, and to promote appropriate measures for their control.

4.10.4 World Food Security and the Plan of Action of November

155. This declaration seeks to secure effective prevention and progressive control of plant and animal pests and diseases, including especially those which are of trans-boundary nature, such as desert locust, where outbreaks can cause major food shortages, destabilize markets and trigger trade measures. It promotes regional collaboration in plant pests and animal disease control and the widespread development and use of safe pest management methods such as integrated pest management practices.

5 APPLICABLE WORLD BANK ENVIRONMENTAL & SOCIAL STANDARDS

156. This chapter describes the World Bank Environmental and Social Standards (ESS) that are applicable to this project. Table 20 below shows the Banks Environmental and Social Standards that are applicable as a result of the proposed project.

5.1 Applicable World Bank’s Environmental and Social Standards

157. The FSRP is a program targeting 13 Counties in Kenya and is expected to have county-wide project investments for as long as the selected sites are feasible. However, the likely or potential locations of many of the proposed investments are unknown at this point in time. In order to reduce, minimize and mitigate adverse risks and impacts and undue harm of its development projects to the environment, all Bank-financed projects are guided by applicable environmental and social standards (ESS) under the Environmental and Social Framework (ESF).

Table 22: Relevant Environmental and Social Standards

ESS	Rationale
Assessment and Management of Environmental and Social Risks and Impacts. (ESS1)	<p>The project activities will include demonstrative micro-projects, small scale infrastructure for primary aggregation, small duration storage and value addition, provision of high-quality climate resilient inputs, access to irrigation and improved water management practices. The implementation of these activities is likely to have potential negative environmental risks and impacts that include soil erosion, soil and water pollution, dust emissions, community health and safety risks and occupational, health and safety (OHS) risks, generation of hazardous and non-hazardous wastes, disease outbreak, eutrophication, salinization as well as potential use of pesticides. These impacts are expected to be temporary, site specific, reversible and easy to mitigate.</p> <p>The negative social impacts that could arise from the sub project activities are: (i) Conflict among communities due to site selection and investments; (ii) Difficulty in accessing land and temporary loss of income for enabling investments; (iii) Inadequate consultations with the local populations due to the vastness of the areas being targeted by the project; (iv) Inadequate input into the selection of value chains and sites for infrastructure investment; (v) Interruptions in production and livelihoods – some farmers/Agro- pastoralists may shift production towards the commodities being supported by the value chain development; (vi) Community health and safety; (vii) Gender Based Violence (GBV) and sexual exploitation, abuse and</p>

	<p>harassment ((SEAH); (viii) Labour conflicts; (ix) Child labor; (x) Elite capture of the investments or controlled access to products; (xi) Exclusion of disadvantaged and vulnerable groups from participating and benefiting from the investments such as selection of value chains that do not recognize the traditional practices and (xi) Limited access to outlets/extension support services/benefits especially in the far-flung counties.</p>
<p>Labor and Working Conditions (ESS2)</p>	<p>This project will have the following types of workers: (i) direct workers, (ii) contracted workers, (iii) primary supply workers, and (iv) community workers. The project shall involve use of civil servants in the management and supervision of project activities. The direct workers will include Consultants who would be brought to support the Project on specific deliverables. The Project will involve the use of contracted workers in the construction of civil works. The project will also use community workers engaged by the FPOs and CIGs for farm level community-based activities. The project anticipates the use of community labor only for specific sub projects e.g. water related, NRM related or cottage industry. The use of community labor will be undertaken through two mechanisms: (i) when the community voluntarily contributes labor as their part of the beneficiary (counter-part) contribution; (ii) when the local youth will provide unskilled labor for off-season employment programs and will be paid for the work done. The risk of child labor and forced labor cannot be ruled out as the agriculture activities such as herding have faced similar allegations in the past. The Community labor agreements, bidding and contract documents shall include clauses forbidding child and forced labor as well as maintaining worker's health and safety. Moreover, all government staff, Consultants and Contracted workers will be required to sign a code of conduct (CoC) in relevant languages, acceptable to the World Bank, to mitigate the risk of GBV/SEA or misconduct in the workplace and in contact with community members. The CoC shall include a zero tolerance policy on GBV/SEAH. They will also ensure that national labor-related laws are upheld, such as public service act, employment act, occupational health and safety act, workers injury benefits act, public health provisions, and public service human resource policy <i>et al</i> and institutional roles related to enforcement of the laws, and recruitment, discipline, appraisals and dismissals.</p>
<p>Resource Efficiency and Pollution Prevention and Management (ESS3)</p>	<p>The project will finance procurement of agricultural inputs that will include pesticides. The pesticides may include both synthetic chemical pesticides and biopesticides and equipment to support the application of the pesticides and livestock vaccinations.</p>

<p>Community Health and Safety (ESS4)</p>	<p>The community will be exposed to risks from use of pesticides through Application of pesticides. It will also be exposed to risk of injuries from Civil works, Risk of spread of STIs, communicable diseases etc and Risk of GBV especially SEA and SH.</p> <p>There are additional risks of SEAH that may extend to communities being served by the project. The project has prepared an Integrated Pest Management Plan to manage the Community health and safety risks of use of pesticides in farming.</p> <p>Given the Project will be implemented in counties that often witness inter/intra community conflicts based on competition for natural resources, the project is preparing a Security Management Plan (SMP) as part of the ESMF to guide on the management of conflict and security risks during implementation. The project will be implemented in counties that border Somalia or South Sudan with potential attacks from the Al Shabab militants or encountering unexploded ordnance (UXO), thus the security risk is assessed to be high for some of the participating Countries bordering Somalia and South Sudan. The project will not use the armed public security forces for its activities. However, the project may use unarmed private security personnel to guard infrastructure under the project during construction and operation phase.</p>
<p>Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS5)</p>	<p>FSRP will undertake infrastructural sub-projects, whose exact type, number, location, and designs are yet to be determined, for improved market access and value addition by smallholder farmers/Agro-pastoralists at farm, CIG, FPO, County, Regional and National levels that will require access to land. When project implementation activities commence, there will be environmental and social screening of all sub-projects proposed by beneficiaries to exclude from approval and eventual funding any that will: lead to involuntary resettlement, physical and /or displacement. . The project investments will involve CIGs/VMGs group level demonstrative micro-project and small-scale infrastructure investments that will require small private or communally owned land obtained through voluntary donations or lease following the principles, procedures and processes by NLC. At FPO level, the investments approved for funding will be small-scale capital investments established on private FPO land for which they must provide proof of ownership. Further, some FPO and value chain ecosystem investments may be established on public land in compliance with the National Land Commission guidelines on change of use, reservation and lease. Loss of Land, Assets and Income: Since the project requires small portions of farming land and</p>

	<p>will affect less than 10% of the land (fencing, crops and trees), hence the loss would be economic. Similarly, there is possible disruption of income of vendors until the market is rehabilitated/ improved on the land already allocated for the market. This economic loss to PAPs would be mitigated/ restored through income restoration plans in ESMPs to be prepared for the specific activity. In case of community land, the plan shall be based on community level agreement on the potential scale of impact and mitigation measures agreed specific to the sub project. A RPF has prepared that details the mitigation and management measures to manage these potential risks and impacts.</p>
<p>Biodiversity Conservation and Sustainable Management of Living Natural Resources (ESS 6)</p>	<p>This ESS is relevant, even though risks of impacts on sensitive habitats and/or protected areas is low, some of the sub-components infrastructures can have an impact on the biodiversity namely the investments aiming at improving the irrigation infrastructures (aquatic and riparian fauna), new storage areas for pesticides products, presence of machinery during the works on water pans and other water structures (on small terrestrial mammals) and pollution to water bodies by pesticides which can affect aquatic fauna.</p>
<p>Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (ESS7)</p>	<p>The Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities in all the counties will be mapped before any other activities of the project to guarantee their involvement. In the context of the World Bank Environmental and Social Standard 7 (ESS7), the term “Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities” referred to as Vulnerable and marginalized Groups (VMGs) in Kenya in World bank operations) is used in a generic sense to refer exclusively to a distinct social and cultural group possessing the following characteristics in varying degrees: (a) Self-identification as members of a distinct indigenous social and cultural group and recognition of this identity by others; (b) Collective attachment to geographically distinct habitats, ancestral territories, or areas of seasonal use or occupation, as well as to the natural resources in these areas; (c) Customary cultural, economic, social, or political institutions that are distinct or separate from those of the mainstream society or culture; and (d) A distinct language or dialect, often different from the official languages of the country or region in which they reside</p>
<p>Stakeholder Engagement and Information Disclosure (ESS 10)</p>	<p>Minor construction works have been proposed under components 1, 2, 3. Thus, there is the potential for a chance to find artefacts or monuments of cultural or archeological significance during construction.</p>

5.1.1 World Bank's Assessment and Management of Environmental and Social Risks and Impacts

158. The Bank classifies all projects into one of four classifications: High Risk, Substantial Risk, Moderate Risk or Low Risk. In determining the appropriate risk classification, the Bank considers relevant issues, such as the type, location, sensitivity, and scale of the project; the nature and magnitude of the potential environmental and social risks and impacts; and the capacity and commitment of the borrower (including any other entity responsible for the implementation of the project) to manage the environmental and social risks and impacts in a manner consistent with the ESSs. Other areas of risk may also be relevant to the delivery of environmental and social mitigation measures and outcomes, depending on the specific project and the context in which it is being developed.
159. FSRP will exclude all sub-project classified as High Risk as per the World Bank risk classification criteria, and all other activities under the Exclusion list in the ESCP.
160. As indicated above, the Project activities are applicable to 9 out of the 10 World Bank ESS. Table 5.3 is a gap analysis of the World Bank ESF and the Kenyan National Laws including suggestions to address identified gaps.

5.2 Environmental and Social Risks Classification

5.2.1 Environmental Risk Classification

Substantial

161. The environmental risk rating for FSRP is assessed as substantial. The geographical coverage of the sub-projects to be implemented is 13 counties in arid and semi-arid areas in the north, north-eastern, north-western, eastern and south-eastern parts of Kenya. These areas frequently experience weather extremes of drought and flooding, and other environmental challenges causing/resulting from land degradation. The type of sub-projects to be implemented include water harvesting and supply infrastructure such as farm ponds, water pans, sand dams and boreholes; small irrigation systems; livestock holding grounds and quarantine compartments; market infrastructure such as storage and processing facilities; and upgrading of roads to improve access to market. The details (such as location and design) of sub-projects have not been finalized at this stage of Project preparation, hence this ESMF has been prepared to provide general guidelines and procedures for assessing environmental and social risks and impacts during implementation.
162. The anticipated environmental risks and impacts during implementation of the sub-projects will mostly emanate from civil works and will include: loss of vegetation from clearance of sites; air pollution from dust and exhaust emissions; noise pollution from

use of heavy machinery/equipment; surface and ground water pollution from ingress of contaminants such as hydrocarbons; occupational, health and safety risks for workers, and community health and safety risks around construction sites; soil degradation from erosion, compaction and sealing; and environmental pollution from generation and poor management of wastes. Given the context of volatility and insecurity in some of the counties proposed in the project, additional risks touching on the security of workers and contractors that will be involved in the sub-projects are anticipated. The environmental risks and impacts from the proposed activities are likely to be temporary, site specific, reversible, and can be mitigated with the appropriate scope of measures.

163. It is anticipated that the project will result in positive environmental impacts that include soil and water conservation practices, safe use of pesticides, sustainable land management and improved water availability due to water harvesting and storage. The potential negative environmental risks and impacts associated with minor construction activities financed under Component 2 include: (i) air pollution, (ii) soil and water pollution; (iii) community health and safety; (iv) occupational, health and safety; and (v) generation of hazardous and non-hazardous waste. These impacts are expected to be temporary, site specific, predictable, reversible and easy to mitigate. The e-voucher program is expected to result in negligible environmental risks and impacts. Instead, it will contribute to the use of quality farm inputs i.e., through soil testing. Component 3 will support roll out of urban food system pilots in select urban clusters. The potential negative environmental risks and impacts are associated with the solid waste generation from the spoilt farm produce delivered to the urban centers through the value chains as well as processing. Risks associated with cold chain management include inadequate electricity, human errors and breakage in cold chain management. These may result in product quality concerns including losses due to spoilage in storage/ transit.

5.2.2 Social Risk Classification

164. The social risk rating is assessed as **Substantial**. This is mainly due to the vastness of the target area across all the wards in the 13 counties, low capacity of project implementation teams, agro-pastoral activities being vulnerable to child labor and forced labor, existing tensions between communities regarding resources (water, community lands); presence of VMGs; evidence that some sub-projects will require agreement and consent from the communities to use community lands (and if VMGs are present on those lands, free prior and informed consent -FPIC- will be required); some sub project investments may lead to income loss/economic displacement.

165. The overall project aim is to enhance incomes for 300,000 small-scale crop and livestock farmers and several value chain actors at various levels including extension workers, aggregators, logistic support providers and SMEs in all the wards in the 13 counties in Kenya by intensifying value chain investments along the selected commodities. Through multiple pathways including expansion of Farmer Producer Organizations (FPO)

operations, expansion of anchor off-takers and SME operations, expansion of agri-tech provider operations, development of agri-preneurs and expansion of urban agri-business linkages about 5,000 jobs will be created. It is anticipated that at least 30% of these farmers/agro-pastoralists will be women. Targeting a high number of women farmers/agro-pastoralists will have a positive impact on their incomes and on the food and nutrition status of households. The key challenge for the project would be to ensure that the women and youth farmers are meaningfully engaged and accrue the resultant benefits that would be hampered by limited access to land mostly owned by men or community which is a key primary production resource. Under Component 1, the project will build climate resilience and support agricultural producers' access to quality inputs, technology, and know-how and a suite of upstream and downstream agricultural services. It will also support agricultural research and innovation systems, extension and advisory services, agricultural information systems, the provision and financing of high-quality inputs (such as seed, fertilizer, and equipment) and risk management tools (e.g. crop insurance and livestock insurance) and other publicly and privately provided goods and services with a particular focus on resilience. There are several social risks associated with these activities, including: (i) elite capture – there is a likelihood that more connected people may get involved and push the poor and vulnerable farmers/agro pastoralists (including VMGs) to the periphery; (ii) discrimination of women from accessing the services given their limited access to land, which is traditionally owned by men in most communities; (iii) inadequate consultations given the fact that most of the activities will be channeled through the FPOs and CIGs; it is possible that disadvantaged and vulnerable farmers (those from marginalized communities) may not fully benefit from the project investments. (iv) Insecure land tenure constraining investments on land for better production or commercial farming. (v) Children resorting to work in project supported activities owing to economic hardship in the project area and weak implementation of labor legislations.

166. There is risk of SEAH on the project; although support to farmers/agro pastoralists will be channeled through FPOs and CIGs, there is a possibility of women being asked for favors by leaders of these organizations to access services. The negative social impacts that could arise from investments under component 2 are: (i) conflict between and among communities due to site selection and investments; (ii) inadequate consultations with the local populations due to the vastness of the areas being targeted by the project; (iii) inadequate input into the selection of value chains and sites for infrastructure investment; (iv) interruptions in production and livelihoods – some farmers/agro pastoralists may shift production towards the commodities being supported by the value chain development; and (v) community health and safety (as outlined above under the Environmental section). The social risks associated with component 3 include: (i) selection of the beneficiaries given the diversity of urban settlements; (ii) elite capture of the investments; and (iii) exclusion of disadvantaged and vulnerable groups from participating and benefiting from the investments. These risks will be mitigated through implementation of the Stakeholder Engagement Plan (SEP) to be prepared for this project.

The SEP will outline the key stakeholders (including VMGs, female headed households, and people with disabilities), the communication and information flow, grievance management, and monitoring and reporting. The Project has prepared this ESMF that provides guidelines and procedures for assessing environmental and social risks and impacts during implementation following the identification of the subprojects. The project has also prepared VMGF and RPF.

5.2.3 Sexual Exploitation, Abuse and Harassment (SEAH) Risk Rating

167. As per the GBV Risk Assessment Tool, the SEAH risk is **Substantial** considering the widespread and rural nature of the program, the vulnerability of women due to limited access to land, unfavorable cultural norms, and the introduction of outsiders to remote locations. It is anticipated that 30% of beneficiary farmers will be women. Targeting a high number of women farmers will have a positive impact on their incomes and on the food and nutrition status of households. There is also a risk of increased cases of SEAH due to the project. Although support to farmers will be channeled through /SACCOs/FPOs and CIGs, there is a possibility of women being asked for favors by leaders of these organizations to access services. Indirectly, the project might lead to SEAH at the household level depending on who has access to the project benefits such as voucher and utilization of the inputs once purchased at the household level. Similarly, participation of women in decision making process and project activities that may not align with gender norms in certain communities.

168. Overall, the livelihood improvement for individual women and collectively may have negative impacts – i.e., exacerbation of SEAH at community level, at least in the short term and in the long term the community and household level power dynamics where gender roles are defined and enforced through social norms. To mitigate this, the community will be sensitized on the grievance mechanism and encouraged to air complaints via the multiple channels availed by the project. Communication activities under the project would require focusing on behavior change communication around gender norms and increased participation of women. The project monitoring activities will also focus on the community health and safety issues and address any emerging challenges during the implementation.

5.3 Environmental and Social Risk Management Instruments

169. There are other environmental and social risk instruments that will complement this ESMF and Framework IPMP and they include SEAH Prevention and Response Plan, Labor Management Procedures (LMP) and Security Management Plan (SMP) which have been prepared. Further, during implementation, IPMPs will be prepared. The GoK has prepared and disclosed an Environmental and Social Commitment Plan (ESCP) and Stakeholder Engagement Plan (SEP) which includes guidance on outreach activities and the establishment of Grievance Management Mechanisms (GMM).

5.4. Gap Analysis of Environmental and Social Standards and Kenyan National Laws

170. **Table 23** shows a gap analysis between the national legislations and the ESF, and how the discrepancy between the legislations will be mitigated.

Table 23: Gap Analysis of Environmental and Social Standards and Kenyan National Laws

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Table 24: Comparative Analysis of Gaps between Environmental and Social Standards and Kenyan National Laws ESS and Requirements

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>Assessment and Management of Environmental and Social Risks and Impacts (ESSI)</p> <p>ESSI sets out the responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing.</p> <p><i>Identification of Risks and Impacts</i></p> <p>Establish and maintain a process for identifying the environmental and social risks and impacts of the project. The type, scale, and location of the project guide the scope</p>	<p>Environmental Management and Coordination Act 1999 Provides for protection and conservation of the environment, environmental impact assessment, and environmental auditing and monitoring.</p> <p>Environmental Management and Coordination (Amendment) Act 2015 (legal Notice No 5 of 2015) provides for a full ESIA study for high risk projects.</p> <p>Environmental Impact Assessment Guidelines and administrative procedures, 2002 guidelines provide the steps in implementation of an EIA and Environmental Audit Provides for carrying out of an EIA Study where a Project is anticipated to cause significant environmental impacts.</p>	<p>ESS I and the various national laws are overly aligned, however ESS I is more explicit on the social component of the ESIA.</p>	<p>The project will be guided by the ESS I in assessment of Environmental and Social Impacts of the proposed subprojects, therefore ensuring the quality of ESIA is enhanced</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
and level of effort devoted to the risks and impacts identification process.			
<p>Labour and Working Conditions (ESS2)</p> <p>Promote sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions by:</p> <ul style="list-style-type: none"> ~ Promote safety and health at work. ~ Promote the fair treatment, non-discrimination and equal opportunity of project workers. ~ Protect project workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with this ESS) and migrant 	<p><i>The Constitution of Kenya (CoK) 2010</i> provides a number of relevant clauses including Article 2 which recognizes ratified treaties as part of the laws of Kenya. Article 41 on Labour relations addresses the entitlements and guarantees afforded to workers, employers and unions. Article 28; freedom from all forms of slavery, servitude and forced labour in Article 30; and the right of everyone to have their privacy respected as provided for in Article 31. Article 27 on non-discrimination provides for equality and prohibits discrimination on various grounds including race, sex, pregnancy, marital status, health status, ethnic or social origin, colour, age, disability, religion, conscience, belief, culture, dress, language or birth.</p> <p><i>The Employment Act 2007</i> alludes to regulating the tripartite relationship that exists between the employers, employees</p>	<p>Kenyan laws are well aligned to ESS2, Therefore, No significant gaps.</p>	<p>Apply either of the two due to insignificant differences.</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>workers, contracted workers, community workers and primary supply workers,</p> <p>~ Prevent the use of all forms of forced labour and child labour</p> <p>~ Support the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law,</p> <p>~ Provide project workers with accessible means to raise workplace concerns.</p> <p><i>Occupational Health and Safety</i></p> <p>Measures relating to occupational health and safety will be applied to the project. The OHS measures will include the requirements of this Section, and will consider the General EHSGs and, as appropriate, the industry-specific EHSGs and other GIIP</p>	<p>and the government. Defines the fundamental rights of employees, and provides basic conditions of employment for employees. The Act has a single subsidiary legislation titled the Employment (General) Rules, 2014 that largely expounds on the terms and conditions of work - aside from other procedural aspects; with an entire schedule outlining the minimum rights bestowed upon employees, and another dedicated to the requisite elements of the Policy Statement on Sexual Harassment</p> <p>-Kenya labour laws prohibit employment of children (under 18) and makes it a criminal offence.</p> <p>Occupational Safety and Health Act (OSHA), 2007;</p> <p>~ Provides for the safety, health and welfare of workers and all persons lawfully present at workplaces.</p> <p>~ Provides for the registration of workplaces.</p> <p>~ Provides for maintenance of cleanliness</p>		

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
	<p>of workplaces, adequate lighting and ventilation, provision of sanitary conveniences,</p> <p>~ Outlines safety requirements in use of machinery to prevent accidents and injuries.</p>		
<p>Resource Efficiency and Pollution Prevention and Management (ESS3)</p> <p>This ESS sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle consistent with GIIP with the following objectives:</p> <p>~ To promote the sustainable use of resources, including energy, water and raw materials.</p> <p>~ To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from</p>	<p>Besides the EMCA 1999 amended 2015 and its subsidiary legislations, Kenya has the Sustainable waste management act No. 31 of 2022, that provides for use of material resources efficiently as prioritized by waste hierarchy, circular economy and clean production in order to reduce the amount of waste that is generated, deposited or discarded in the environment including the management of materials that would otherwise have been dumped or wasted in a way that contributes to environmental, social and economic goals of sustainable development; promote sustainable waste management; It provides for reduce air, land, fresh water and marine pollution; promote and ensure the effective delivery of waste services; create an enabling environment for employment in the green economy in waste</p>	<p>No significant gaps between ESS 3 and the various national laws. However, ESS 3 packaged into a single document</p>	<p>Use ESS3 however one may also refer to National laws. Under the standard the project has prepared an Integrated Pest Management Plans (IPMPs), including emergency response measures And also a Waste Management Plan to manage hazardous and non-hazardous wastes, consistent with ESS3 Measures should be undertaken to avoid, waste production, minimize wastes generation and if unavoidable mitigate</p> <p>On infrastructure An Environmental and Social Impact Assessment (ESIA) has to be</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>project activities.</p> <p>~ To avoid or minimize project-related emissions of short and long-lived climate pollutants.</p> <p>~ To avoid or minimize generation of hazardous and non-hazardous waste.</p> <p>~ To minimize and manage the risks and impacts associated with pesticide use.</p>	<p>management, recycling and recovery; establish an environmentally sound infrastructure and system for sustainable waste management; promote circular economy practices for green growth; mainstream resource efficiency principles in sustainable consumption and production practices; and inculcate responsible public behavior on waste and environment.</p> <p><i>Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations, 2009</i>, which prohibits persons from making or causing any loud, unreasonable, unnecessary or unusual noise which annoys, disturbs, injures or endangers the comfort, repose, health or safety of others and the environment.</p> <p><i>Environmental Management and Coordination (Controlled Substances) Regulations 2007 (Legal Notice No 73 of 2007)</i> provides for measures for storage, handling packaging and disposal of products with ozone-depleting substances.</p>		<p>conducted as part of the project preparation and design process. It identifies and summarizes potential environmental and social risks and impacts that may be associated with the project and takes in to consideration SEA-SH, Security risks, OSHA risks, risk of discrimination and exclusion, the infrastructure design , workers and community safety and biodiversity and land ownership all outlined in separate documents prepared for this project</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
	<p><i>Environmental Management and Coordination (Air Quality) Regulations, 2014</i> Provides for ambient air quality tolerance limits and prohibits air pollution in a manner that exceed specified levels; Prohibits air pollution in controlled areas including residential areas, hospitals, National Parks, reserves and sanctuaries, conservation areas and central business districts; Provides for the control of vehicular emissions and prevention of dispersion of visible particulate matter or dust from any material being transported.</p>		
<p><i>Community Health and Safety (ESS4)</i> Addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular</p>	<p><i>The Public Health Act (Cap 242)</i> ~ Provides for the prevention of the occurrence of nuisance or conditions dangerous/injurious to humans. ~ Provides that the relevant local authority shall take all lawful, necessary and reasonably practicable measures.</p> <p><i>Environmental Management and Coordination Act 1999</i>; Provides for protection and conservation of the environment, environmental impact</p>	<p>No significant gaps between ESS 4 and the various national laws.</p>	<p>Apply either of the two due to insignificant differences. Reference to different investment and OHS requirement are also provided in the separate documents done for the project. The LMP, SMP, SEAH response and action plan</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>circumstances, may be vulnerable.</p> <p>Requirements</p> <p>Community Health and Safety</p> <p>The Client 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. This will be including identifying the risks and impacts and propose mitigation measures in accordance with the mitigation hierarchy.</p> <p>Management and safety of hazardous materials</p> <p>The client will avoid or minimize the potential for</p>	<p>assessment, and environmental auditing and monitoring.</p> <p>Environmental Management and Coordination (Amendment) Act 2015 (legal Notice No 5 of 2015) provides for a full ESIA study for high risk projects.</p> <p>Environmental Impact Assessment Guidelines and administrative procedures, 2002. The guidelines provide the steps in implementation of an EIA, Monitoring and Environmental Audit</p> <p>Provides for carrying out of an EIA Study where a Project will have significant environmental impacts and the Project Report does not disclose adequate mitigation measures</p> <p><i>Environmental Management and Co-ordination (Water Quality) Regulations 2006</i></p> <p>~ Provides for the protection of ground and surface water resources.</p> <p>~ Provides the water quality standards for effluent discharged into the aquatic environment.</p>		

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>community exposure to hazardous materials and substances that may be released by the project.</p> <p>Community Exposure to Disease</p> <p>The client will avoid or minimize the potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases, and communicable diseases that could result from project activities, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups.</p> <p>Emergency Preparedness and Response</p> <p>The client will identify and implement measures to</p>	<p><i>Environmental Management and Co-ordination (Waste Management) Regulations 2006</i></p> <p>~ Provides for standards for handling, transportation and disposal of various types of wastes including hazardous wastes.</p> <p>~ Requirements to ensure waste minimization or cleaner production, waste segregation, recycling or composting.</p> <p>~ Provides for licensing of vehicle transporting waste.</p> <p>~ Provides for the licensing of waste disposal facilities.</p> <p><i>Environmental Management and Coordination (Controlled Substances) Regulations 2007 (Legal Notice No 73 of 2007)</i> Provides for measures for storage, handling packaging and disposal of products with ozone-depleting substances.</p> <p><i>Environmental Management and</i></p>		

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>address emergency events. The measures will be designed to address the emergency event in a coordinated and expeditious manner, to prevent it from injuring the health and safety of the community, and to minimize, mitigate and compensate for any impacts that may occur.</p> <p>Security Personnel</p> <p>When the client retains direct or contracted workers to provide security to safeguard its personnel and property, it will assess risks posed by its security arrangements to those within and outside the project site. In making such arrangements, the client will be guided by the principles of proportionality and good international practice in relation to hiring, rules of</p>	<p><i>Coordination (Air Quality) Regulations, 2014</i></p> <ul style="list-style-type: none"> ~ Provides for ambient air quality tolerance limits. ~ Prohibits air pollution in a manner that exceed specified levels. ~ Prohibits air pollution in controlled areas including residential areas, hospitals, National Parks, reserves and sanctuaries, conservation areas and central business districts ~ Provides for the control of vehicular emissions. ~ Provides for prevention of dispersion of visible particulate matter or dust from any material being transported. <p>Community Health and Safety</p> <p>Environmental Management and Coordination Act 1999 Provides for undertaking of ESIA for all projects and assess project risks on communities with respect to health and safety.</p> <p>Hazardous Materials Management and Safety.</p>		

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>conduct, training, equipping, and monitoring of such workers, and by applicable law. The client will provide a grievance mechanism for Affected Communities to express concerns about the security arrangements and acts of security personnel.</p>	<p>Environmental Management and Co-ordination (Waste Management) Regulations 2006 provide for management of hazardous wastes and materials including protection of communities from associated risks.</p> <p>Environmental Management and Coordination Act 1999 Provides for protection and conservation of the environment, environmental impact assessment, and environmental auditing and monitoring.</p> <p>Community Exposure to Disease</p> <p><i>The Public Health Act (Cap 242)</i></p> <p>~ Provides for the prevention of the occurrence of nuisance or conditions dangerous/injurious to humans.</p> <p>~ Provides that the relevant local authority shall take all lawful, necessary and reasonably practicable measures.</p> <p>Emergency Preparedness and Response</p>		

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
	<p>Environmental Management and Coordination Act 1999 Provides for development of emergency preparedness and response plans for minimizing risks to communities and ensure participation of communities in response.</p> <p>Security Personnel</p> <p><i>Police Act, 2010</i> Section 14A. (2) provides that no police officer shall subject any person to torture or to any other cruel, inhuman or degrading treatment.</p> <p><i>Independent Policy Oversight Act 2011.</i> Part III section 24 subsection (1) A person wishing to lodge a complaint against the Police may do so orally or in writing or in such other appropriate format as may be prescribed in the regulations.</p>		
<p>Land Acquisition, Restrictions on land use and Involuntary Resettlement (ESS 5). Provides for situations where project makes land physically</p>	<p>Kenya has several land statutory policies and laws governing land ownership, use, transfer, buying and selling, change of land use, land dispute resolution, etc.</p> <p><i>Environment and Land Court.</i> Section 20, of</p>	<p>The CoK on the other hand recognizes ‘occupants of land’ who do not have title and who the state has an obligation to pay in</p>	<p>Ensure ALL users (including squatters, laborers, rights of access) of affected lands are included in the census survey and are paid for loss of assets</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>unusable or inaccessible, even when there is no land acquisition. It covers restrictions on access to communal property and natural resources It contains criteria on voluntary transactions, land donations, forced eviction and eminent domain; as well as a definition of replacement cost, including where inflation exists.</p> <p>This ESS applies to permanent or temporary physical and economic displacement resulting from the following types of land acquisition or restrictions on land use undertaken or imposed in connection with project implementation and denial of land use rights arising thereof.:</p>	<p>the Environment and Land Court Act, 2011 empowers the Environment and Land Court, on its own motion, or on application of the parties to a dispute, to direct the application of including traditional dispute resolution mechanisms.</p> <p>Land Act No. 6 Of 2012 Revised Edition 2016 [2012] provides for the sustainable administration and management of land and land-based resources, and for connected purposes.</p> <p>Community Land Act 2016 Presents an unprecedented opportunity for communities to legally claim rights to their land and its use and management</p>	<p>good faith when compulsory acquisition is made but this is sometimes not fully implemented</p>	<p>other than land. Where resettlement will require new land, the impact will be handled during screening and preparation of RAP if need be</p>
Biodiversity Conservation and Sustainable	<i>The Wildlife Conservation and Management Act, 2013</i> Prohibits pollution of wildlife	No significant gaps between ESS 6 and	However The E&S safeguards team shall screen sub-projects,

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>Management of Living Natural Resource (ESS6)</p> <p>Recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development.</p> <p>Requirements</p> <p>Conservation of biodiversity and habitats</p> <p>For the protection and conservation of habitats and the biodiversity they support, the mitigation hierarchy includes biodiversity offsets.</p> <p>Legally protected and internationally recognized areas of high biodiversity value</p> <p>Where the project occurs within or has the potential to</p>	<p>habitats and ecosystems</p> <p>The Forest Conservation and Management Act, 2016 Prohibits the destruction of protected tree species or family of trees. The Act also provides for the sustainable management of indigenous forests and woodlands.</p> <p>The Environmental Management and Co-ordination (Wetlands, River Banks, Lake Shores and Sea Shore Management) Regulations, 2009</p> <p>The objectives of the regulations is to provide for the conservation and sustainable use of wetlands and their resources in Kenya and promote the integration of sustainable use of resources in wetlands into the local and national management of natural resources for socio-economic development.</p> <p>Protection and Conservation of Biodiversity</p>	<p>the various national laws.</p>	<p>prepare, consult upon, adopt, publicly disclose, ESIA's or ESMPs with relevant measures for management of risks and impacts on biodiversity, consistent with ESS6. The team shall screen and exclude sub-projects and activities that are likely to have impacts on biodiversity, critical habitats and protected areas.</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
adversely affect an area that is legally protected, designated for protection, or regionally or internationally recognized, the client will ensure that any activities undertaken are consistent with the area's legal protection status and management.	<p>The Wildlife Conservation and Management Act, 2013 Prohibits pollution of wildlife habitats and ecosystems.</p> <p>The Forest Conservation and Management Act, 2016 Prohibits the destruction of protected tree species or family of trees. The Act also provides for the sustainable management of indigenous forests and woodlands.</p>		
<p>Indigenous peoples/Sub-Saharan African historically underserved traditional local communities (ESS7)</p> <p>ESS& seeks to ensure that Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities present in or with collective attachment to the project area are fully consulted about, and have</p>	<p>-Article 11. (3) (b) Parliament shall enact legislation to recognize and protect the ownership of indigenous seeds and plant varieties, their genetic and diverse characteristics, and their use by the communities of Kenya. Article 63, 2(d)(i) inter alia recognizes VMG lands as community land consisting of - land that is lawfully held, managed, or used by specific communities as community forests, grazing areas or shrines; ancestral lands and lands traditionally occupied by hunter-gatherer communities. Kenya National Youth Policy, 2006 This Policy</p>	<p>Parliament is yet to enact the laws required under article 11 of the constitution.</p> <p>-The right to a language of choice has not been backed up with institutions to guarantee that right and protect it. VMG languages are under threat from dominant languages even in the</p>	<p>Respect the indigenous institutions of VMGs and undertake to protect them during project design and implementation.</p> <p>- Follow ESS7 in respecting the respective VMGs languages and translating posters and project document summaries into Kiswahili and any other languages to reach them more appropriately. Using the trusted elders and opinion leaders from</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>opportunities to actively participate in, project design and the determination of project implementation arrangements.</p> <p>The scope and scale of consultation, as well as subsequent project planning and documentation processes, will be proportionate to the scope and scale of potential project risks and impacts as they may affect Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities</p>	<p>aspires for a society in which the youth (which make up for the vast majority of the VMG) enjoy equal opportunity to usefully engage in social, economic, political, cultural, and religious life.</p> <p>- Article 44(1): “Every person has the right to use the language and to participate in the cultural life of the person’s choice. A person belonging to a cultural or linguistic community has the right with other members of that community – (a) to enjoy the person’s culture and use the person’s language; or (b) to form, join and maintain cultural and linguistic associations and other and other organs of civil society. A person shall not compel another person to perform, observe or undergo any cultural practice or rite.” National Policy on Culture and Heritage, 2009 The policy also defines national heritage as the sum of all the creativity in all its forms preserved, enhanced, and handed over to future generations as a record of human</p>	<p>context of development projects.</p> <p>-Kenya constitution 2010 has entrenched stakeholder consultation and engagement depicted as public participation, however the law (public participation Act, 2018) is at final stages of legislation.</p>	<p>the VMGs will critically improve the confidence of inclusion in the projects.</p> <p>- Follow ESS 7 and 10 to disclose project information and carry out public consultation with VMGs in culturally appropriate ways</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
	<p>experience and aspirations.</p> <p>- Article 35. (1) Every person has the right of access to (a) information held by the state; and (b) information held by another person and required for the exercise of protection of any right of fundamental freedom.</p>		
<p>Stakeholder Engagement and Information Disclosure (ESS 10).</p> <p>This ESS recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. This ESS must be read in conjunction with ESS1. Requirements regarding engagement with workers are found in ESS2.</p> <p>Stakeholder identification and analysis</p>	<p>Stakeholder Engagement and Consultation</p> <p>The Environmental Management and Coordination Act provides for ESIA studies including stakeholder engagement with vulnerable and marginalized groups.</p> <p>Public Participation Act, 2018</p> <p>The Public Participation Act: provides a general framework for effective public participation; and gives effect to the constitutional principles of democracy and participation of the people under Articles 1(2), 10(2), 35, 69(1)(d), 118, 174(c) and (d), 184(1)(c), 196, 201(a) and 232(1)(d) of the Constitution. According to the Act, the conduct of public</p>	<p>No significant gaps between ESS 10 and the various national laws.</p>	<p>Apply either of the two due to insignificant differences</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>The client will identify the different stakeholders, both project-affected parties and other interested parties.</p> <p>Stakeholder Engagement Plan</p> <p>In consultation with the Bank, the Borrower will develop and implement a Stakeholder Engagement Plan (SEP) proportionate to the nature and scale of the project and its potential risks and impacts.</p> <p>Information disclosure</p> <p>The client will disclose project information to allow stakeholders to understand the risks and impacts of the project, and potential opportunities.</p> <p>Meaningful consultation</p>	<p>participation shall be guided Guiding by the following principles -</p> <ul style="list-style-type: none"> ~ Principles. that the public, communities and organizations to be affected by a decision shall have a right to be consulted and involved in the decision-making process; ~ provision of effective mechanisms for the involvement of the public, communities and organizations that would be affected by or be interested in a decision; participants' equitable access to the information they need to participate in a meaningful manner; ~ that public views shall be taken into consideration in decision making; development of appropriate feedback mechanisms; and ~ Promotion of sustainable decisions recognizing the needs and interests of all participants, including decision makers. ~ The beneficiaries and local leaders shall be involved through a continuous consultation process throughout the project implementation. 		

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
<p>The client will undertake a process of meaningful consultation in a manner that provides stakeholders with opportunities to express their views on project risks, impacts, and mitigation measures, and allows the Borrower to consider and respond to them.</p> <p>Grievance mechanism</p> <p>The client will respond to concerns and grievances of project-affected parties related to the environmental and social performance of the project in a timely manner.</p> <p>Organizational capacity and commitment</p> <p>The client will define clear roles, responsibilities and authority as well as designate</p>	<p>Grievance Mechanism for Affected Communities</p> <p>The Environmental Management and Coordination Act provides for ESIA studies establishment of a robust grievance redress mechanism.</p>		

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
specific personnel to be responsible for the implementation and monitoring of stakeholder engagement activities and compliance with this ESS.			
<p>Good Practice Notes:</p> <ul style="list-style-type: none"> -Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project. -Non-Discrimination and Disability -Assessing and Managing the Risks and Impacts of the Use of Security Personnel -Gender -Non-Discrimination: Sexual Orientation and Gender Identity (SOGI) 	<p>-Employment Act 2007- a worker is harassed sexually if the employer or its representative or a co-worker request (directly or indirectly) for any form of sexual favor in order to get preferential treatment at workplace; or threaten the worker of detrimental treatment on present or future employment status of the worker. Any kind of sexual behavior that makes the victim feel uncomfortable includes using language (written or spoken) or visual material of sexual nature; and showing physical behavior of sexual nature is considered sexual harassment.</p> <p>-Sexual Offences Act 2006- any person, who being in a position of authority, or a person holding a public office, who persistently makes any sexual advances or</p>	<p>The national laws are there but sensitization, support to victims, and enforcement are the procedural issues.</p>	<p>The communities must always be sensitized as a matter of procedure and requirement; identify Police Gender Desks for reporting to; support victims through medical and counselling procedures and also legal process and post recovery. Follow WB Good practice Notes in project implementation</p>

Gaps Analysis of Between Environmental and Social Standards and Kenyan National Laws ESS and Requirements			
ESS and Requirements	National Laws and Requirements	Gaps	Recommendations
	requests which he or she knows, or has reasonable grounds to know, are unwelcome, is guilty of the offence of sexual harassment and is liable to imprisonment of at least three years or to a fine of at least 100,000 shillings or to both.		
GBV Guidelines, 2020 – Details how gender-based violence should be mitigated in World Bank financed projects	<p>Model County Law and Policy On Gender-Based Violence, 2017 - The national commission overseeing gender and equality matters in Kenya has published model legislation on sexual and gender-based violence (SGBV), designed to help county governments effectively protect women and girls from violence.</p> <p>This model legislative framework will provide guidance to institutions at the county level on critical elements relating to SGBV for their use when drafting county legislation aligned with national frameworks.</p>	Not fully operationalized at county level.	<p>Sensitize communities on framework and its importance.</p> <p>Apply WB GBV Guidelines.</p>

6 POTENTIAL ENVIRONMENT AND SOCIAL RISKS AND IMPACTS

I71. This chapter highlights the potential environmental and social risks and impacts of the FSRP as well as the mitigation and monitoring measures that could be employed to manage them.

6.1 Positive Impacts

I72. The project is financing activities that will have positive impacts and benefits to the areas and local communities that will participate in the project. These will include: (i) Food security (ii) creation of employment opportunities; (iii) increased agricultural incomes and competitiveness through crop diversification, value addition and remunerative marketing; (iv) improved skill base of farmers/agro pastoralists; (v) improved natural resource management; and (vi) reduced GHG emissions. It is also anticipated that the project will result in positive environmental impacts that include application of soil and water conservation practices. The e-voucher program to be financed under this component will contribute to the use of quality farm inputs i.e., through soil testing. Targeting a high number of women farmers/agro pastoralists will have a positive impact on their incomes and on the food and nutrition status of households. The key challenge for the project would be to ensure that the women and VMGs are meaningfully engaged in the project and that they accrue the project benefits. In addition, women may be challenged with limited access to land mostly owned by men which is a key resource for the project.

6.2 Negative Environmental Risks and Impacts

I73. The potential adverse environmental and social risks and impacts of the project highlighted below. These are the adverse risks and impacts likely to be experienced by all the wards in the 13 counties by crop and livestock farming activities.

6.2.1 Noise pollution and Vibration

I74. Potential noise impacts may arise as a result of the construction activities associated with the sub projects (for subprojects including irrigation canals, water pans, sand dams, market centers). There will be risks and impact of noise and vibration resulting from the construction equipment and machinery on people. Potential sources of noise and vibration during construction will include clearing and grubbing of the transmission corridor, excavations, earthmoving, construction traffic etc. Construction activities and equipment are not expected to result in significant levels of vibration. Equipment that might cause high levels of vibration (such as impact piling or vibratory compaction) may be used.

6.2.2 Loss of Vegetation

I75. There will be vegetation loss during the construction phase (for subprojects including irrigation canals, water pans, sand dams, market centres). The vegetation will be cleared so that the area where the construction work is to take place is clear for the construction work to be performed. The construction works will involve direct land take of productive pastureland and agricultural lands, bush clearing, removal of topsoil, excavation, and mass haulage. These activities will expose the land to elements of erosion such as wind and water and thus will trigger the process of land degradation.

6.2.3 Soil Erosion and pollution

I76. Construction and irrigation related activities as well as cultivation related activities will have direct physical impacts to soil. Possible direct physical impacts to soil include erosion resulting from activities such as excavation of foundations and clearing of vegetation for infrastructure such as construction zones and workers camp (if applicable). The excavation of soil for the construction activities will disrupt the soil cohesion and also may result in surplus soil due to the use of concrete for the foundation. If not properly restored or managed, this soil may erode and wash into nearby surface water bodies adversely impacting these. Any temporary soil stockpiles established during construction of infrastructure will be at risk of erosion from wind and rainfall. The project will use pesticides in both crop and livestock interventions posing risks of soil pollution. This comes from pesticides transportation, storage, handling and application, and pesticides wastes production and disposal including expired pests, rinsate, empty containers and contaminated PPEs.

6.2.4 Surface Water Quality and pollution

I77. Construction activities associated with the sub projects can have significant effects on the surface water resources and good environmental management, including control of runoff, sediments, storage of fuels and good practice should be followed. Project activities will interact with water resources in the following ways:

- There will be direct interaction during clearing and construction near to or in surface water bodies.
- There will be indirect interaction in the case of erosion of soils into water bodies.
- There will be direct interaction from the abstraction of water from surface water bodies for construction (e.g., for dust control).
- There will be direct interaction from the discharge of treated domestic wastewater to surface water bodies (in the event campsites are established).
- In addition, if vegetation and soil clearing are not properly managed, there is the potential for soil to run into water bodies and increased sediment load. This in turn may have a detrimental effect on water quality and affect surface water users.

I78. During the construction, water will be required for several purposes including for use in the workers' accommodation camp (if determined), construction process which requires

water, cleaning of the vehicles and equipment, keeping down construction dust impacts among others. The potential impacts and risk of the project relating to surface water supply are:

- Stresses on local water resources from construction water abstractions from surface and/or ground water; and
- Potential indirect effects from water demand caused by local population expansion due to in-migration.
- Overall raw water supply requirements for the construction will be very low and necessary during concrete mixing only and keeping down the dust.

6.2.5 Eutrophication

I79. A high nutrient level is essential for productive agriculture. However, the use of both natural and chemical fertilizers may result in an excess of nutrients which can cause problems in water bodies and to health. Nitrates are highly soluble and therefore may quickly reach water bodies. Phosphates tend to be fixed to soil particles and therefore reach water courses when soil is eroded. Phosphate saturated soils and high phosphate level groundwater are now found in some developed countries.

I80. Infiltration of irrigation water in excess of available root zone storage will penetrate beyond the reach of roots and eventually recharge groundwater. Nitrates, salts, and other chemicals used in crop cultivation that dissolve in the soil water will move with the water. Crops with high water and nitrates requirements (vegetables) will increase the potential risk of nitrate pollution to groundwater. Because they do not evaporate, nitrates/nitrites are likely to remain in water until consumed by plants or other organisms. This impact will be felt more in areas with light-textured soils and intensive production of shallow-rooted crops that will contribute to considerable nitrate losses by leaching.

6.2.6 Change in Hydrology

I81. Abstraction of water for irrigation structures, small earth dams, water pans and sand dams will have an impact on the hydrological flow of the riverine system. The impact will affect the general hydrological flows including the current existence of water bodies. Changes to the low flow regime may have significant negative impacts on the hydrology.

6.2.7 Solid and Liquid Waste pollution

I82. Improper waste management procedures including pesticide wastes or lack of mitigation measures may result in adverse environmental and social impacts on: -

- Storm water quality and thus water quality in the water bodies in project areas
- Soil quality
- Surface water quality
- Ground water quality; and
- Ecological receptors or human health.

183. The different types of waste and sources that are likely to be generated from the construction activities are described below.

- Recyclable and Reusable Waste
- Excavation Waste
- Wastewater
- Hazardous Waste (pesticide)

6.2.8 Change in Landscape and Visual Amenity

184. Visual impacts refer mainly to the changes to the visual character of landscape views resulting from: obstruction of existing views; removal of screening elements thereby exposing viewers to unsightly views; the introduction of new elements into the views of the visual receptors and intrusion of foreign elements into the view shed of landscape features. The sub project activities will have an impact on the visual character of the landscape due to:

- Clearance of vegetation, construction yards
- Presence of construction vehicles and equipment
- Worker presence and activity; and
- Dust emissions resulting from construction activities and traffic.

6.2.9 Borrow Pits and Quarry Sites

185. Borrow pits and quarries are sites where stone, sand, gravel, till, clay, or other granular soils are extracted for construction of the various sub projects. The term 'pit' is used when granular material is extracted. The term 'quarry' is used where consolidated rock is removed. Environmental impacts of pit and quarry development can include the loss, reduction or disturbance to wildlife and habitat, erosion, dust, soil/groundwater contamination, damage to historic resources, waste disposal, noise, and aesthetics.

186. The sub project construction activities are likely to attract workers from within the project area and outside of the project areas. The construction activities will also entail engagement of contractors, sub-contractors and third-party entities which will form part of the supply chain. Workers' rights including occupational health and safety may be abused hence adverse impact may include exposure to accidents and injuries, loss of man-hours and labor abuses. The projects could potentially lead to workforce-related social and health issues throughout the life cycle of the project if worker management and rights do not meet Kenyan law or international best practice. The potential for occupational health and safety incidents throughout the life cycle of the project is higher during the construction phase. Workers' rights including occupational health and safety need to be considered to avoid accidents and injuries, loss of man-hours, labor abuses and to ensure fair treatment, remuneration and working conditions.

187. The pesticide application personnel (such as storekeepers, pilots, loaders, mixers, drivers) will be exposed to pesticides during transport, handling, measuring, pouring, spraying and disposal. Pesticides enter the body through various pathways:

- Ingestion/swallowing through the mouth, accidental or deliberate
- Dermal, through the skin when handling, measuring, and pouring
- Inhalation of small particles or dust when handling, spraying, and flagging

6.2.10 Impacts on Archeology and Cultural Heritage sites

188. During the construction activities removal of vegetation, excavation works might uncover cultural sites which can only be removed by the appropriate governmental structures and consultation with the traditional authorities.

6.2.11 Greenhouse Gas Emissions

189. Livestock (dairy cows) are associated with increased release of Greenhouse Gases (GHGs), specifically methane gas. Livestock, especially ruminants such as cattle, produce methane (CH₄) as part of their normal digestive processes. This process is called enteric fermentation, and it represents over a quarter of the emissions from the agriculture economic sector. The sub projects related to dairy farming may lead to an increase in GHG emissions by releasing methane gas. ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, eco system services and the environment at the local, regional, and global levels. The current and projected atmospheric concentration of greenhouse gases (GHG) threatens the welfare of current and future generations. At the same time, more efficient and effective resource use, pollution prevention and GHG emission avoidance, and mitigation technologies and practices have become more accessible and achievable

6.2.12 Impacts on biodiversity

190. Even though risks of project works impacts on sensitive habitats and/or protected areas may be low, some of the sub-components infrastructures can have impacts on the biodiversity namely the investments aiming at improving the irrigation infrastructures (aquatic and riparian fauna), new storage areas for pesticides products, presence of machinery during the works on water pans and other water structures (on small terrestrial mammals) and pollution to water bodies by pesticides which can affect aquatic fauna. The E&S safeguards team shall screen sub-projects, prepare, consult upon, adopt, publicly disclose, ESIA or ESMPs with relevant measures for management of risks and impacts on biodiversity, consistent with ESS6. The team shall screen and exclude sub-projects and activities that are likely to have impacts on biodiversity, critical habitats and

protected areas. The safeguards team will Assess and manage specific risks and impacts to the community arising from infrastructure development activities, including risks to livestock, crop, fodder, and humans associated with such developments; the behavior of Project workers, risks of labor influx, and response to emergency situations or other health and safety related incidents, and include mitigation measures in the ESIA's and/or ESMPs to be prepared in accordance with the ESMF during both construction and operational phases(refer to LMP prepared for this project on OSH risks to workers and community)

6.3 Negative Social Risks and Impacts

6.3.1 Sexual Exploitation, Abuse and Harassment (SEAH)

- 191. Labour influx may lead to an increase in Sexual Exploitation, Abuse and Harassment (SEAH) and Workplace Sexual Harassment (WSH).
- 192. The project may create changes in the project affected communities and can cause shifts in power dynamics between the community members and within households. Male jealousy, a key driver of SEAH, can be increased by labor influx on a project when workers are freely interacting with community members.
- 193. There is also a possibility of the women being asked for sexual favors by the leaders of the organizations that will be providing vouchers, inputs, and other services.
- 194. Indirectly, the project might lead to SEAH at the household level depending on who has access to the project benefits such as voucher and utilization of the inputs once purchased at the household level or participation of women in decision making process and project activities that may not align with gender norms in certain communities.

6.3.2 Impacts on Vulnerable and Marginalized Groups

- 195. Vulnerable groups include SSAHUTLCs (Indigenous Peoples), orphans, and child headed households, the sick, elderly, and female headed households, chemical substances & drug addicts among others and who may be adversely affected by the proposed investments especially in the event that their status as vulnerable or marginalized groups is not considered in the preparation of the specific investments. All the Counties have been identified to have groups that are categorized as Indigenous Peoples as per ESS7 as detailed in the VMGF for FSRP and shown in Table 22 below.

Table 25: County VMGs

County	Ethnic groups	Main area of residence
I. Isiolo	Meru Samburu Turkana Somali Borana	Isiolo town and border area Oldonyiro and Ngaremarara wards In and around Isiolo Town, and Ngaremarara ward

		Various and towards borders of Garissa and Wajir Various and are almost exclusive inhabitants in Cherab and Chari wards
2. Wajir	Degodia Ogaden Ajuran	Wajir West, El Das, Tarbaj and Wajir East subcounties Wajir South subcounty Wajir North subcounty
3. Mandera	Murulle Degodia Garre Corner tribes	Mandera East, Lafey subcounties Mandera North and West subcounties Mandera North, South, East (around the town), West and Banisa subcounties Mandera East (around the town), Kalaliyo ward and near Daua river
4. Marsabit	Waata Konso Deis El-molo Turkana Lkunono Gabra Rendille Borana Samburu Jaldesa Sakuye Arabs	Ileret North-Horr, Dukana, Marsabit (Dirib-Gombo), Hurri Hills, Maikona, Kalacha, Balessa, el-hadi Garwale Marsabit (Dub gobba, Qachacha, Dakabaricha, Dalachas) Telesgei, Loyangalani and Moite
5. Garissa	Munyoyaya Boni	Munyoyaya Balich village Boni Bodhai ward (Boni forest), Ijara sub county)
6. Tana river	Waata Munyoyaya Malakote /Ilwana	Waata Sombo Munyoyaya Balambala (TR) Malakote /Ilwana Bura
7. Samburu	Il Kunono Dorobo /Il torobo Boni	Maralal Laisamis Wamba Kipini Coast
8. Baringo	Il-Chamus	Kiserian, Marigat, Mokutani, Sandai, Lobo

	Endorois Sapor Turkana, Luo Pokot Tugen	L. Bogoria Kokwa Island Marigat division (Sapor) Around Lake Baringo
9. Turkana	El Molo Ngikebootok	Kalokol (originally form Loiyangalani), They live in Loiyangalani on Marsabit side, Central Islands and Longech past Kalokol in Turkana Banks of River Turkwel around Kaputir, Nakwamoru, Kapelibok, Juluk, Namakat and Nabeye
10. Lamu	Giriama Somali Boni Orma Pokomo Sanye Watta	Witu, Didewaride, Hindi, Mapenya, Mpeketoni, Langoni, Hongwe, Mkomani, Shella, Matodoni (West) Kiunga (East), Mkomani, Witu, Pandanguo, Baharini (West) Hindi, Witu, Pandanguo (West), Kiunga, Patte, Foza, Basuba (East) Witu, Didewaride, Langoni, Mkomani, Baharini, Matondoni, Mkunubi, Makowe (West) Witu, Hindi, Mkomani, Langoni (West), Patte (East) Mapenya. Ndambwe, Mkunumbi, Witu, Hindi, Baharini (West), Foza, Patte, Siu (East) Witu (West), Dide Waride, Waradhe, Seti.
11. Laikipia	Yiaku Maasai Samburu Turkana Pokot	Doldol, Sieku, East Laikipia, Mkogodo forest Sosian North Laikipia North Laikipia
12. West Pokot	Sengwer Pokot	West Pokot Pokot North Pokot Central
13. Elgeyo Marakwet	Cherangany/Sengwer Ogiek/Ndorobo	Cherangany, Kamoi, Kapterit, Koisungu, Chebororwa, Kondabilet, Kaptiony, sengwer, Rogor, Kapterit, Kamoi, Embotut, Kapcherop Kuserwa – Koisungur, Kabiemit, Tumeyo, Soy, Kokwao, Kapchemutwa Sengwer,

		Kuserwa, Kamoi, Kapterit, Kipteber, Lelan, Kondabilet, Cheborowa, cherangany
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196. In order to ensure that vulnerable groups meeting ESS7 requirements are given special attention, a VMGF has been prepared which will include the preparation of subsequent Vulnerable and Marginalized Groups’ Plans (VMGPs) and abbreviated Social Assessment (SA Study to ensure that the vulnerability of the specific groups is established and suitable measures put in place to ensure that they access the project benefits.

6.3.3 Diseases Spread-Public Health

197. There is a potential risk that the construction process for most of the sub projects could increase HIV/AIDS and other communicable diseases prevalence in the project areas especially through interactions of the locals with the contracted labour workers. Solid waste and effluent discharge from temporary construction sites.; risk of increase in vectors of schistosomiasis, river blindness, Lymphatic filariasis (elephantiasis) and malaria due to stagnant water associated with construction works/borrow pits, irrigation schemes, irrigation structures, water pans and sand dams.

6.3.4 Incessant Traffic including accidents

198. Traffic congestion from construction which could potentially cause disruption, health, and safety impacts, as well as economic impacts. The use of moving construction vehicles and machinery in project sites is generally known to cause traffic reducing movement and flow of vehicles. The presence of heavy traffic may result in injuries and deaths due to road accidents. Fast moving motor vehicles may also lead to increased dusty conditions which may cause poor visibility, leading to incidents and accidents.

6.3.5 Impact on Community Safety related to Road Traffic, Site Trespass Activities

199. During construction there will be an increase in traffic movements in the road along the project sites. This will include trucks transporting construction material, excavation machinery, etc. which is expected to increase the risk of road traffic accidents and potential injuries or fatalities to other road users or pedestrians. The increase in movement of vehicles during the construction phase may result in greater disturbance and decreased wellbeing for those communities closest to the working areas and along transportation routes and access roads. Trespassing on the site working areas could result in accidents leading to injuries or even fatalities, especially due to the presence of machinery, and open excavations, which could at times be partly filled with water (e.g., open excavations). Young people, elders and children are most at risk of being injured.

6.3.6 Conflict in project Areas

200. The potential for eruption of conflict during implementation of the project is an adverse impact. Conflict during the implementation may include those related to access to services. The security management plan has elaborated on how potential adverse impacts related to conflict eruption will be mitigated to ensure that farming communities in conflict-prone areas access project benefits. Resource conflict may also erupt in the operation phase if the benefits are not shared equitably.

6.3.7 Displacement Impacts

201. The project will require land for implementing infrastructural sub-projects. The sub-projects will be screened and vetted and only those that do not require involuntary acquisition of land leading to physical displacement of PAPs /PAHs will be approved for FSRP funding. Economic displacement may occur for PAPs/PAHs when sub-projects are initiated and implemented. The resultant negative impacts are temporary, lasting not more than 30 days and affect less than 10% of the productive assets and will be addressed through Livelihood Restoration Plans (LRPs) as described in the Resettlement Policy Framework (RPF).

6.3.8 Child /Forced Labour

202. Employment of children or forced labor is a potential adverse impact that can be experienced during hiring of labor for construction/operation of certain sub projects or when communities provide labor as a requirement for community contribution for specific sub-projects. It is worth noting that some sectors such as coffee and cotton are more prone to child/forced labour. Emphasis will be laid on coffee since it is one of the 9 prioritized value chains in FSRP. Measures have been put in place to avoid child labour and also ensure voluntary community labour as specified in the Labour Management Procedures (LMP).

6.3.9 Cumulative and transboundary impacts

203. The assessment of FSRP risks will be proportionate to the potential risks and impacts of the project, and will assess, in an integrated way, all relevant direct,²⁰ indirect²¹ and cumulative²² environmental and social risks and impacts throughout the project life cycle, those related to climate change and other transboundary or global risks and impacts; (iv) any material threat to the protection, conservation, maintenance and restoration of natural habitats and biodiversity

6.3.10 Elite Capture

204. There is a potential for elite capture of FSRP sub-projects/activities whereby public decision making is distorted by the disproportionate influence of well-connected farming

individuals/groups, who can marginalize poorer farming communities from accessing intended project benefits. The benefits of the investments at community, county, regional and national levels such as water pans, smallholder irrigation schemes including value addition infrastructure such as aggregation centers, markets and agro-processing plants may be directed to a few individuals rather than the farming community/groups who were the initial target beneficiaries. Elite capture can also occur where benefits from FSRP sub-projects are diverted to less-needy individual beneficiaries and locations poorly accessed by beneficiaries. Community Driven Development (CDD) in both NARIGP and KCSAP that will also be used by FSRP has been shown to have implementation processes that offset elite capture risk and enhance participation of targeted rural communities by giving them control over decision-making, management and the use of project funds. Further, CDD consists of a participatory planning process at both farm group level (CIGs/VMGs) and Community level -Community Driven Development Committees) leading to funding and implementation of activities prioritized by the intended beneficiaries thereby avoiding elite capture.

6.3.11 Land Tenure Challenges

205. Project beneficiaries may have limited access to project benefits due to land tenure challenges which may include lack of title deeds or when land is owned communally (community land). Community lands are more prone to conflicts because they are not registered. Prior to approval, all investments under FSRP will be subjected to due diligence to ascertain the status of the land tenure. Land access procedures for donated private and community land, leased private land and reservation/lease/change of use for public land targeted for use by FSRP sub-projects have been described in the project Resettlement Policy Framework (RPF). FSRP will avoid investing in locations where the land tenure issues will potentially hinder beneficiaries from accessing anticipated project benefits.

6.3.12 Inadequate Extension of Services

206. Far flung and inaccessible areas may not benefit from the agricultural extension support that is to be provided by the project. Disruptive Agricultural Technologies (DAT) and Big Data have been successfully piloted by NARIGP/KCSAP for the provision of e-extension services to farming communities. There will be further investments by FSRP towards improved extension service provision by focusing on partnerships with DAT cohorts and youth/women Agripreneurs for provision of bundled services by e-extension to farmers/agro pastoralists in far-flung and inaccessible areas.

6.3.13 Community lands not registered

207. There is a risk that most communal lands are not registered, and this could lead to conflicts/tensions/ complexities in case of a land donation. But the Community Land Act of 2016 allows a registered group to request for some land for public use from the

National Land Commission (NLC) which in effect is allocated and used under the use-ownership of such a group.

6.4 Typology of projects and their E&S risks

Table 26: Anticipated Environmental & Social Impacts and their Proposed Mitigation Measures

Implementation phase	Anticipated Environmental Impacts and their Proposed Mitigation Measures		Anticipated Social Impacts and their Proposed Mitigation Measures	
	risks	Mitigation	risks	Mitigation
a). Sub-surface water structures, water pan, earth dams, sand dams, ponds				
Pre-Construction (Planning / Design) Phase	<ul style="list-style-type: none"> Lack of awareness lead to social conflict, Introduction of plant and workforce into areas could introduce /disseminate invasive species (Prosopis spp.), Storage of materials, circulation of construction machinery. 	<ul style="list-style-type: none"> Appropriate site selection and siting of all project components, with advice from biodiversity authorities/wildlife specialists and other, Good construction site “housekeeping” and management procedures (including site access), Site selection for camp site and waste disposal /Site installation 	<ul style="list-style-type: none"> Employment may lead to conflicts with local communities, Risk of non-respect for the integrity of cultural sites (risk of borrowing materials or depositing materials in these sites) Traditional lifestyles; transmission of disease including HIV and other communicable diseases. 	<ul style="list-style-type: none"> Approval of relevant authorities at all locations, Demarcation and avoidance of areas of conservation interest (high value species, feeding or breeding sites, migration routes, etc.) where possible, Development of an employment plan, with clear employment requirements for the construction and operational of maintenance workforce. Staff training and awareness raising in communities; Workers sign code of conduct
Construction Phase	<ul style="list-style-type: none"> Earthworks and clearance may lead to loss of plant species and habitats Generation of wastes/emissions, pollution of soils and water. Impacts on habitats and species from habitat alteration and degradation (e.g. from reduction in water supply, changes in water flow and drainage, soil erosion, pollution of water, soils or air, introduction of invasive species).. Poor construction management practices may lead to adverse effects on safety, human health and wellbeing. 	<ul style="list-style-type: none"> Establishing communal bylaw and users committee for major resources built or enhanced through the project for proper management and preventions of conflicts and resource degradation, Establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive and avoidance or minimization of activity within these zones. Facilitate programs/measures to ensure appropriate sanitary and medical facilities are available, Fencing or physical barriers of the water sources and the reservoir to avoid entrance of children, livestock and wild life, Implement environmental management measures for vector control, Implementation of a Grievance Procedure to address all grievances and complaints., Provide for waste bins and toilet facilities Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value, using specialist advice and input so as to maintain the integrity of the habitat, backed up by a long-term monitoring program and corrective actions as necessary. 	<ul style="list-style-type: none"> Effects to cultural heritage sites by construction activities well managed, 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, Occurrence of communicable diseases, including HIV/AIDS and sexually transmitted diseases (STDs). Potential for adverse effects if expectations not met and community relations Real or perceived disruption to normal community life, through the physical presence of a workforce; in particular, potential for conflicts to occur over water use, Work related issues including occupational health and safety at the work place 	<ul style="list-style-type: none"> communication with communities an Employment Plan, with clear employment requirements, and procedures for the construction and operational /maintenance workforce, Local communities given first priority in hiring Only technical expertise not locally available will be sourced from the outside Ensure the participation and benefit of IPs and other marginalized and vulnerable groups communities (orphans, elderly, poor, landless, minority groups, women and youth) throughout and after the project. Fair and transparent hiring and staff management procedures, Staff training and awareness raising in communities, Training and awareness raising and Implementation of a health management for workforce and their dependents on HIV/AIDS and other STDs, and communicable diseases; health awareness raising campaigns for communities on similar topics, Establish contractual clauses to be embedded in the contracts of all sub-contractors

Implementation phase	Anticipated Environmental Impacts and their Proposed Mitigation Measures		Anticipated Social Impacts and their Proposed Mitigation Measures	
	risks	Mitigation	risks	Mitigation
		<ul style="list-style-type: none"> Restrictions on access to all temporary construction sites, by outsiders 		<ul style="list-style-type: none"> Insurance cover for workers during construction, first aid and PPEs Signage warning for speed and access control,
Operation and Maintenance Phase	<ul style="list-style-type: none"> Earthworks and clearance may lead to loss of plant species and habitats, Generation of wastes/emissions, pollution of soils and water. Impacts on habitats and species from habitat alteration and degradation (e.g. from reduction in water supply, changes in water flow and drainage, soil erosion, pollution of water, soils introduction of invasive species). Runoff from grazing areas and land used for growing feed (containing fertilizers, pesticides and herbicides etc.). Water borne and water related diseases, especially those associated with water dwelling disease vectors (new areas of standing water created) or poor sanitary conditions. 	<ul style="list-style-type: none"> Clearance of invasive species during routine maintenance of water storage and distribution systems (eradication by utilization) Establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive and avoidance or minimization of activity within these zones, Invasive Species Management Plan, which should be developed and implemented in consultation with all stakeholders, Regular preventative maintenance of all system components to ensure minimal wastage of water. 	<ul style="list-style-type: none"> Potential for adverse effects if expectations not met and community relations are not well managed, 	<ul style="list-style-type: none"> Staff training and awareness raising in communities, Implementation of a grievance mechanism to address all grievances and complaints.
b). Ground water – Boreholes				
Pre- Construction (Planning/ Design) Phase	<ul style="list-style-type: none"> Excavated soil Human waste Oil waste Waste water 	<ul style="list-style-type: none"> Designate specific area for waste collection Provide for waste bins at the site Provide toilet facilities away from the project but accessible to workers and users Segregate waste and provide for appropriate waste disposal. Designate specific area for waste collection Provide for waste bins at the site 	<ul style="list-style-type: none"> Boreholes siting Conflict over water resource 	<ul style="list-style-type: none"> Ensure stakeholders engagement to identify appropriate site. Provide toilet facilities away from the project but accessible to workers and users Segregate waste and provide for appropriate waste disposal
Construction Phase	<ul style="list-style-type: none"> Excavated soil Human waste Air and noise pollution from drilling equipment 	<ul style="list-style-type: none"> Service machinery to reduce air and noise pollution Adhere to recommended drilling hours. Provide toilet facilities away from the project but accessible to workers and users. 	<ul style="list-style-type: none"> Boreholes siting Conflict over water resource Attract more people and livestock at the site; In adequate sanitary facilities due. 	<ul style="list-style-type: none"> Provide toilet facilities away from the project but accessible to workers and users; Provide for waste bins at the site Designate specific area for waste collection
Operation and Maintenance Phase	<ul style="list-style-type: none"> Waste water Excavated soil Oil waste Human waste 	<ul style="list-style-type: none"> Provide toilet facilities away from the project but accessible to workers and users Provide for waste bins at the site Designate specific area for waste collection 	<ul style="list-style-type: none"> Conflict over water management 	<ul style="list-style-type: none"> Grievance resolution through established water management committees Provide toilet facilities away from the project but accessible to workers and users Segregate waste and provide for appropriate waste disposal Provide for waste bins at the site Designate specific area for waste collection.

Implementation phase	Anticipated Environmental Impacts and their Proposed Mitigation Measures		Anticipated Social Impacts and their Proposed Mitigation Measures	
	risks	Mitigation	risks	Mitigation
c). Community Irrigation projects				
Pre-Construction (Planning/ Design) Phase	<ul style="list-style-type: none"> Lack of awareness lead to social conflict, Introduction of plant and workforce into areas could introduction of invasive species, Storage of materials, circulation of construction machinery. 	<ul style="list-style-type: none"> Appropriate site selection and siting of all project components, with advice from biodiversity authorities/wildlife specialists and other, Good irrigation sites and sound management procedures (including site access), Site selection for camp site and waste disposal /Site installation 	<ul style="list-style-type: none"> Employment may lead to conflicts with local communities, Risk of non-respect for the integrity of cultural sites (risk of borrowing materials or depositing materials in these sites) Traditional lifestyles; transmission of disease including HIV and other communicable diseases. 	<ul style="list-style-type: none"> Approval of relevant authorities at all locations, Demarcation and avoidance of areas of conservation interest (high value species, feeding or breeding sites, migration routes, etc.) where possible, Development of an employment plan, with clear employment requirements for the construction and operational of maintenance workforce. Staff training and awareness raising in communities;
Construction Phase	<ul style="list-style-type: none"> Excavated soil Waste bags and cartons Crop residue Oil waste Human waste 	<ul style="list-style-type: none"> Provide toilet facilities away from the project but accessible to workers and users Use the excavated soil to refill the pipelines Compost crop residue or use as livestock feeds Provide waste bins on the site Dispose waste at designated sites approved by NEMA 	<ul style="list-style-type: none"> Inadequate sanitary facilities Land access 	<ul style="list-style-type: none"> Provide toilet facilities away from the project but accessible to workers and users Use the excavated soil to refill the pipelines Compost crop residue or use as livestock feeds Provide waste bins on the site Dispose waste at designated sites approved by NEMA
Operation and Maintenance Phase	<ul style="list-style-type: none"> Excavated soil Waste bags and cartons Crop residue Oil waste Human waste 	<ul style="list-style-type: none"> Provide toilet facilities away from the project but accessible to workers and users Use the excavated soil to refill the pipelines Compost crop residue or use as livestock feeds Provide waste bins on the site Dispose waste at designated sites approved by NEMA 	<ul style="list-style-type: none"> Employment may lead to conflicts with local communities, 	<ul style="list-style-type: none"> Development of an employment plan, with clear employment requirements for the operational of maintenance workforce.
d). Farm and Market infrastructure; Hay Barns, Livestock market, Produce Market Agricultural, Cold rooms, Milk Chilling Facilities, Storage facility, Aggregation Facilities				
Pre-Construction (Planning/ Design) Phase	<ul style="list-style-type: none"> In appropriate site selection for camp site and west disposal /Site installation/, Lack of awareness lead to social conflict, Employment may lead to conflicts with local communities, Storage of materials, circulation of construction machinery; Risk of non-respect for the integrity of cultural sites (risk of borrowing materials or depositing materials in these sites). 	<ul style="list-style-type: none"> Approval of relevant authorities at all locations, Careful site selection and siting of all project components, with advice from biodiversity authorities/wildlife specialists and other, Good construction site “housekeeping” and management procedures (including site access), Demarcation and avoidance of areas of conservation interest (high value species, feeding or breeding sites, migration routes, etc.) where possible. 	<ul style="list-style-type: none"> Traditional lifestyles; transmission of disease including HIV and other communicable diseases, Movement of plant and workforce into areas could introduce /disseminate invasive species. 	<ul style="list-style-type: none"> Staff training and awareness raising in communities, Development of an Employment Plan, with clear employment requirements and procedures for the construction and operational/ maintenance workforce. Local community should be given priority in employment opportunities.
Construction Phase	<ul style="list-style-type: none"> Animal Diseases spread such as foot and mouth etc Dust from could affect human health, vegetation (including crops), Impact on community health and safety 	<ul style="list-style-type: none"> Appropriate siting of all project components, with advice from biodiversity, authorities/wildlife specialists, Dust and odor control and suppression measures, such as dampening and use of vegetation hedges. 	<ul style="list-style-type: none"> Land take for development of livestock projects may physically displace people, or lead to loss of assets, Conflict between consumers 	<ul style="list-style-type: none"> Proper selection of areas proposed for livestock projects, and siting of project facilities, to avoid occupation of areas which are inhabited or regarded as having high value by communities.

Implementation phase	Anticipated Environmental Impacts and their Proposed Mitigation Measures		Anticipated Social Impacts and their Proposed Mitigation Measures	
	risks	Mitigation	risks	Mitigation
	<ul style="list-style-type: none"> • Impact on flora and fauna • Impact on workers' health and safety • livestock itself, may disturb sensitive noise receptors (human and fauna), • Noise and vibration, • Pollution of watercourses caused by wastes from livestock • Release of hazardous substance vehicle spills leading to soil, surface or groundwater contamination, • Surface and ground water contamination. • Waste disposal from health posts, milk collection centres. 	<ul style="list-style-type: none"> • Establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive, and avoidance or minimization of activity within these zones. • Good construction site “housekeeping” and management procedures (including site access), • Implementation of standard good wastewater management and disposal procedures; wastewater drainage outlets to discharge into vegetated areas if possible; vegetation along watercourses and drainage lines to be retained if possible, • Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value, • Sensitive route selection for access roads, and siting of construction works and facilities, 		<ul style="list-style-type: none"> • Development of an Employment Plan, with clear employment requirements and procedures for the construction (and if appropriate, operational) workforce, • Staff training and awareness raising in communities, • Transparent and culturally appropriate communication with communities regarding opportunities for involvement in the project, • Fair and transparent hiring and staff management procedures, • Employment practices, working conditions and workforce living conditions should conform to International Labor Organization (ILO) Standards and national regulations, • Awareness creation, changing to value chain, Clearing and experience sharing,
Operation and Maintenance Phase	<ul style="list-style-type: none"> • Pollution of watercourses caused by wastes from livestock, • Odors associated with livestock and waste may have nuisance value for nearby receptors, • Loss, fragmentation and degradation of habitat, and severance of animal migration routes and pathways, • Earthworks and clearance may lead to loss of plant species and habitats of conservation interest. • Invasive species - chemicals Injuring livestock with its poisonous thorns and causing goat teeth to rot and fall out because the small seeds get stuck between the teeth, Impacts to recreational opportunities and other human values, • Pollution of ground and surface water, soil from discharges and accidental releases, from processing unites, • Chemical management in animal laboratories, veterinary and health posts. • Discharge of construction site sewage effluent polluting watercourses, • Odors associated with dairy processing and animal health clinics, market centers infrastructure, 	<ul style="list-style-type: none"> • Implementation of standard good wastewater management and disposal procedures; wastewater drainage outlets to discharge into vegetated areas if possible; vegetation along watercourses and drainage lines to be retained if possible, • Establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive, and avoidance or minimization of activity within these zones. • Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value • Implement appropriate waste disposal measures and using bio-remediation measures, 	<ul style="list-style-type: none"> • Potential for economic displacement of specific individuals or groups with existing income • Headed from traditional milk marketing if they are excluded from projects. • Potential for conflicts if expectations not met and community relations are not well managed, 	<ul style="list-style-type: none"> • Implementation of a Grievance Mechanism, • Staff training and awareness raising in communities, • Development of transparent and culturally appropriate communication with communities an Employment Plan, with clear employment requirements, and procedures for the construction and operational /maintenance workforce, • Fair and transparent hiring and staff management procedures, • Training and awareness raising and Implementation of a health management for workforce and their dependents on HIV/AIDS and other STDs, and communicable diseases; health awareness raising campaigns for communities on similar topics, • Ensure the participation and benefit of IPs and other marginalized and vulnerable groups communities (orphans, elderly, poor, landless, minority groups, women and youth) throughout and after the project.

Implementation phase	Anticipated Environmental Impacts and their Proposed Mitigation Measures		Anticipated Social Impacts and their Proposed Mitigation Measures	
	risks	Mitigation	risks	Mitigation
	<ul style="list-style-type: none"> Waste disposal. 			
e). Feeder Roads				
Pre-Construction (Planning/ Design) Phase	<ul style="list-style-type: none"> Poor site selection for camp site and waste disposal /Site installation/ Lack of awareness lead to social conflict, Employment may lead to conflicts with local communities, Storage of materials, circulation of construction machinery; Movement of plant and workforce into areas could introduce /disseminate invasive species (Prosopis) 	<ul style="list-style-type: none"> Good construction site “housekeeping” and management procedures (including site access), No abstraction without prior approval of relevant authorities at all locations, Earthworks to be designed to achieve a balance between cut and fill wherever possible, Demarcation and avoidance of areas of conservation interest (high value species, feeding or breeding sites, migration routes, etc.) where possible, and wildlife rescue and translocation where appropriate, under expert supervision, 	<ul style="list-style-type: none"> Risk of non-respect for the integrity of cultural sites (risk of borrowing materials or depositing materials in these sites) Traditional lifestyles; transmission of disease including HIV and other communicable diseases. 	<ul style="list-style-type: none"> Careful route selection and siting of all project components, taking account of community consultation/ specialist surveys, Preparation and implementation of an Influx/ In-migration Management Plan, in consultation with local authorities. Staff training and awareness raising in communities,
Construction Phase	<ul style="list-style-type: none"> Dust from could affect human health, vegetation (including crops) and wildlife Loss, fragmentation and degradation of habitat, and severance of animal migration routes and pathways, Pollution of Soils and Water, Discharge of construction site/camp sewage effluent polluting watercourses. 	<ul style="list-style-type: none"> Avoidance of areas liable to flooding, slope instability, and water crossings where possible, Basic site facilities Detailed alignment to take account of local groundwater conditions, e.g. by avoiding areas with springs or where the water table is shallow, Dust control and suppression measures, Establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive and avoidance or minimization of activity within these zones Implementation of a Grievance Procedure to address all grievances and complaints., Including latrines for the workers need to be available for service earlier to avoid open area defecating. Minimization of cleared areas and soil disturbance, with vegetation as soon as feasible, with native species Monitoring, technical support, and supervision of the implementation, No ground clearance upstream of sensitive areas unless appropriately engineered drainage installed. Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value, using specialist advice and input, backed up by a long-term monitoring program and corrective actions as necessary. Restrictions on work and other activities around water bodies (e.g. vehicle washing), and 	<ul style="list-style-type: none"> Interaction between workforce and local communities may increase occurrence of communicable diseases, including HIV/AIDS, and sexually transmitted diseases (STDs) Displacement or damage to cultural heritage sites by construction activities, harm to the setting, amenity value, etc. of the site due to road construction or operation, Loss, fragmentation and degradation of habitat, and severance of animal migration routes and pathways Labor and Working Conditions Poor management of occupational health and safety could lead to accidents, injuries and illnesses among workers; mental health issues may arise due to remote or enclosed living. Road developments into remote areas will facilitate access, and can lead to land clearance for agriculture, and increased disturbance and pressure on natural resources through bush meat hunting, logging, fire, etc Direct Impacts on Fauna and Flora. Introduce invasive species that adversely impact fauna, flora, ecosystems, and crops. Development or upgrading of roads may physically displace people, or lead to the loss of assets Economic Development and Employment Direct employment of local population in workforce, and stimulation of local economy 	<ul style="list-style-type: none"> Bush meat Hunting and Wildlife Trade Management Plan agreed with government authorities and implemented jointly, Prohibition on workforce (except security personnel) having guns in work areas or accommodation, Sensitization and public awareness campaigns against hunting and bush meat the trade amongst local communities. Staff training and awareness raising in communities. Transparent and culturally appropriate communication with communities regarding employment opportunities. Fair and transparent hiring and staff management procedures. Employment requirements and vocational training plan to be agreed with local institutions, so that local people can be trained to meet the project’s needs in a timely fashion. Good construction site “housekeeping” and management procedures (including site access). Control of pollution under Physical Impacts heading Training and awareness training for workforce and their dependents on HIV/AIDS, other Sexually Transmitted Diseases (STDS),, and communicable diseases including malaria;

Implementation phase	Anticipated Environmental Impacts and their Proposed Mitigation Measures		Anticipated Social Impacts and their Proposed Mitigation Measures	
	risks	Mitigation	risks	Mitigation
		<p>minimization measures around water crossings where this not possible.</p> <ul style="list-style-type: none"> • Retention of topsoil for restoration (including tilling and vegetation) as soon as practicable. • Sensitive local route selection and siting of construction facilities. • Wildlife crossings for terrestrial animals, and design of culverts/crossing structures to avoid impacts on animal movement. 	<p>through demand for goods and services will enhance livelihoods and economic activity in local communities, but potentially adverse effects if community relations are not well managed.</p> <ul style="list-style-type: none"> • Procurement of local goods and services for the road development and workforce could deplete resources available for local communities. • Cultural Heritage • Displacement or damage to cultural heritage sites by construction activities, harm to the setting, amenity value, etc. of the site due to road construction or operation, • Community Health, Safety and Security • Interaction between workforce and local communities may increase occurrence of communicable diseases, including HIV/AIDS and other sexually transmitted diseases (STDs), • 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 resentments, • Poor management of occupational health and safety could lead to accidents, injuries and illnesses among workers; mental health issues may arise due to remote or enclosed living. 	<p>health awareness raising campaigns for communities on similar topics,</p> <ul style="list-style-type: none"> • Implementation of a Grievance Procedure to address all grievances and complaints., • Training for all staff in acceptable behavior with respect to community interactions • Ensure the participation and benefit of marginalized and vulnerable part of the communities (poor, landless, minority groups, women, old and youth) throughout and after the project • Proper compensation should be settled prior to any voluntary settlement for using lands and other resources for subprojects
Operation and Maintenance Phase	<ul style="list-style-type: none"> • Loss, fragmentation and degradation of habitat, and severance of animal migration routes and pathways, • Severance of terrestrial routes and watercourses used for migration or for access to feeding and breeding areas, • Road developments into remote areas will facilitate access, and can lead to land clearance for agriculture, and increased disturbance and pressure on natural resources through bush meat hunting, logging, fire, e.t.c • Direct Impacts on Flora and Fauna • Movement of plant a workforce into areas, and of road traffic during operation, could introduce invasive species that adversely impact fauna, flora, ecosystems, and crops. 	<ul style="list-style-type: none"> • Speed controls and other traffic calming measures to reduce excessive acceleration around populated& wildlife sites, • Dust control and suppression measures. • Speed controls and other traffic calming measures to reduce excessive acceleration around populated& wildlife sites. • Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value, using specialist advice and input, backed up by a long-term monitoring program and corrective actions as necessary • Observance of seasonal sensitivities (e.g. breeding seasons), and alteration of activity to reduce noise levels at that time, • Invasive Species Management Plan align which national plan, should be developed and implemented in consultation with authorities, 	<ul style="list-style-type: none"> • In appropriate siting of the projects • Grievances and complaints 	<ul style="list-style-type: none"> • Sensitization and public awareness campaigns against hunting and bush meat the trade amongst local communities. • Implementation of a Grievance Procedure to address all grievances and complaints.

Implementation phase	Anticipated Environmental Impacts and their Proposed Mitigation Measures		Anticipated Social Impacts and their Proposed Mitigation Measures	
	risks	Mitigation	risks	Mitigation
		including appropriate eradication measures for different species/groups of species.		
Pest and vector Management activities	<ul style="list-style-type: none"> • Vaccination • Drug administration • Spraying against external parasites • Pest and disease management activities 	<ul style="list-style-type: none"> • Dispose used containers, syringes and cartons at designated sites; • Use excavated soil to refill and landscaping • Provide for toilets • Dispose solid waste in designated sites • Provide septic tank and soak pit for liquid and solid waste. 	<ul style="list-style-type: none"> • Conflict over animal movement 	<ul style="list-style-type: none"> • Quarantine livestock affected by diseases.

6.5 Environmental and Social Management Plan

Table 27: environmental and social management plan

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
A. CONSTRUCTION					
A1. Construction Air Impacts	Impact on sensitive receptors	AI-1: Develop a Dust Management Plan; AI-2: Record all dust and air quality complaints, identify cause(s), take appropriate measures AI-3: Liaise with local communities to forewarn of potentially dusty activities; AI-4: Undertake monitoring of areas close to dusty activities, noting that this may be daily visual inspections, or passive/active monitoring AI-5: Undertake inspections to ensure compliance with the Dust Management Plan; AI-6: Plan potentially dusty activities so that these are located as far from receptors as feasible AI-7: Erect solid screens if feasible around stockpiles and concrete batching; AI-8: Avoid run off of mud and water and maintain drains in a clean state; AI-9: Remove dusty materials from site as soon as possible if not being re-used. If being re-used, cover or vegetate if possible; AI-10: Impose speed limits on haul routes and in construction compounds to reduce dust generation; AI-11: Minimize drop heights when loading stockpiles or transferring materials; and AI-12: Avoid waste or vegetation burning.	Contractor	AI-1; No. of dust management plans developed AI-2; No. of dust related grievances recorded & resolved AI-3; No. of sensitization meetings held & attendance AI-4; No. of affected places/ surfaces monitored AI-5; No. of areas in compliance AI-6; No. of potentially dusty activities located away from receptors. AI-7; No of barriers erected AI-8; No. of drains maintained in clean state AI-9; No, of days taken before removal/ re-use of dusty materials. AI-10; No. of speed limit signs erected. AI-11; No. of loading activities with low drop heights AI-12; No. of alternative environmentally friendly disposal methods used	
	Impact on workers' health and safety				
	Impact on community health and safety				
	Impact on flora and fauna				

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
		<p>For earthworks: AI-15: Revegetate exposed areas as soon as feasible AI-16: Revegetate or cover stockpiles if feasible; AI-17: Expose the minimum area required for the works; and exposure on a staged basis to minimize dust blow.</p>	Contractor	AI-15; Exposed area (ha) re-vegetated AI-16; Area (ha) under stockpiles re-vegetated AI-17; Percentage of total area exposed	
		<p>For track out: AI-18: Where track out is onto paved roads, use wet road cleaning methods to remove dirt and mud build up; AI-19: Avoid dry sweeping of large areas; and AI-20: Where feasible, undertake wheel washing and vehicle clean down prior to accessing public roads.</p>	Contractor	AI-18; No. of track outs onto paved roads using appropriate cleaning methods AI-19; Area (ha) under wet sweeping AI-20; No. of vehicles cleaned before accessing public roads	
A2. Noise and Vibration Impacts	Impact on sensitive receptors	A2-1: Siting noisy plant and equipment as far away as possible from NSRs, and use of barriers (e.g., site huts, acoustic sheds or partitions) to reduce the level of construction noise at receptors wherever practicable. A2-2: Where practicable noisy equipment will be orientated to face away from the nearest NSRs; A2-3: Working hours for significant noise generating construction work (including works required to upgrade existing access roads or create new ones), will be undertaken during daytime only;	Contractor	A2-1; No. of noisy plant/ equipment sited away receptors No. and type of noise barriers erected A2-2; No. of noisy machines facing away from receptors. A2-3; No. of daytime working hours for noisy machines and equipment	FSRP Labour management procedures, OHS risks, mitigation measures, identification of hazards and ESIRT,
	Impact on workers' health and safety				
	Impact on community health and safety	A2-4: Alternatives to diesel and petrol engines and pneumatic units, such as hydraulic or electric-controlled units, will be used, where practicable;	Contractor	A2-4; No. of machines operated using renewable energy sources	
	Impact on fauna	A2-5: Where practicable, stationary equipment will be located in an acoustically treated enclosure	Contractor	A2-5; No. of stationery equipment in acoustically treated enclosures	
		A2-6: For machines with fitted enclosures, doors and door seals will be checked to ensure they are in good working order; also, that the doors close properly against the seals;	Contractor	A2-6; No. of machinery with seals in good working condition	
		A2-7: Throttle settings will be reduced, and equipment and plant turned off, when not being used; A2-8: Equipment will be regularly inspected and maintained to ensure it is in good working order. The condition of mufflers will also be checked; and A2-9: Fitting of mufflers or silencers of the type recommended by manufacturers A-2-10- Prepare and implement a Blasting Management Plan (BMP) in the event that blasting using explosives is undertaken for stone quarries.	Contractor	A2-7; No. of plants/ machines with reduced throttle settings and turned off when not in use A2-8; No. of equipment inspected and serviced regularly A2-9; No. of machines/ equipment fitted with appropriate silencers A-2-10; BMP prepared and implemented for stone quarries	

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
A3. Soil erosion and contamination impacts	Impacts on water quality (sediment run-off/contamination) leading to deterioration of quality. Deteriorated water quality will impact on fauna if consumed. Deteriorated water quality will impact on community health if consumed.	A3-1: Vegetation clearing, and topsoil disturbance will be minimized. A3-2: Contour temporary and permanent access roads/ laydown areas so as to minimize surface water runoff and erosion; A3-3: Sheet erosion of soil shall be prevented where necessary through the use of sandbags, diversion berms, culverts, or other physical means. A3-4: Topsoil shall be stockpiled separate from subsoil. Stockpiles shall not exceed 2 m height, shall be located away from drainage lines, shall be protected from rain and wind erosion, and shall not be contaminated. Wherever possible construction work will take place during the dry season.	Contractor	A3-1; Area (ha) with minimal disturbance A3-2; Length of roads (km) built on the contour A3-3; Average depth of soil eroded (mm) A3-4; No. and types of soil stockpiled away from drainage lines	Refer LMP to OHS risk on exposure to extreme temperatures, soil and sun burns, ESIRT procedures. -Involve soil science /geologist to ensure water pans and other surface water harvesting structures are not done on porous soils
		A3-5: Topsoil shall be evenly spread across the cleared areas when reinstated. A3-6: Accelerated erosion from storm events during construction shall be minimized through managing storm water runoff (e.g., velocity control measures).	Contractor	A3-5; Cleared area (ha) on which the top soil has been spread/ reinstated. A3-6; Types and number of structures established to control/ harvest storm water.	
		A3-7: Soil backfilled into excavations shall be replaced in the order of removal in order to preserve the soil profile. Material (e.g., fuel or chemicals).	Contractor	A3-7; No. of excavations properly backfilled	
		A3-8: Spread mulch generated from indigenous cleared vegetation across exposed soils after construction.	Contractor	A3-8; Exposed area (ha) covered with mulch from indigenous vegetation.	
A4. Surface Water Quality Impacts	Impacts on water quality (sediment run-off/contamination) leading to deterioration of quality. Deteriorated water quality will impact on fauna if consumed. Deteriorated water quality will impact on community health if consumed.	A4-1: Develop a Waste Water Management Plan. Activities shall be conducted >100m away from water bodies, except where crossings are required.	Contractor	A4-1; Waste water management plan developed and implemented	OHS risk to drowning, floods and ESIRT
		A4-2: All wastewater which may be contaminated with oily substances must be managed in accordance with an appropriate waste management plan and no hydrocarbon-contaminated water may be discharged to the environment.	Contractor	A4-2; Waste water management plan developed and implemented	
		A4-3: Domestic wastewater shall be treated and disposed of in accordance with an approved waste management plan. Park vehicles preferably on paved platforms	Contractor	A4-3; Domestic waste water management plan developed and implemented	
A5. Impact on Flora and Vegetation	Loss of biodiversity.	A5-1: Avoidance of impacts should be prioritized. Where impact avoidance is not possible, existing indigenous vegetation must be kept intact, where possible. Vegetation will be removed only as necessary.	Contractor	A5-1; No. and type of indigenous vegetation conserved.	No need for biodiversity management but EMCA 2019 provides mitigation measures on the approval certificate

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
		A5-2: Rivers, water courses and other water bodies shall be kept clear of felled trees, vegetation cuttings and organic waste and debris from clearing;	Contractor	A5-2; No. of rivers/ water bodies without obstruction	
		A5-3: Alien invasive vegetation should be removed immediately and disposed of properly, at a licensed waste disposal facility as necessary;	Contractor	A5-3; No and types of invasive species properly disposed	
		A5-4: There should be no deviation from the access road position without prior discussions with the authorities; A5-5: Firewood collection by the project's employees should be strictly forbidden.	Contractor	A5-4; No. of diversions from access road authorized A5-5; No. of erected warning signs prohibiting firewood collection	
		A5-6: Rehabilitation of temporary construction sites and should be done as swiftly as possible and always with suitable native grasses and other plants – construction of new camps is unlikely to happen.	Contractor	A5-6; No. of sites rehabilitated using locally available materials	
		A5-7: Materials and equipment should not be delivered to the site prematurely, as this could result in need for laydown or storage areas and additional areas being cleared or affected unnecessarily; and	Contractor	A5-7; Time of delivery and usage of materials and equipment	
		A5-8: Whenever possible, all damaged areas shall be reinstated and rehabilitated upon completion of the contract to as near pre-construction conditions as possible	Contractor	A5-8; No. of damaged sites reinstated/ rehabilitated	
A6. Impact on Fauna	-Disturbance due to noise, vibrations, and vehicle presence.	A6-1: All areas disturbed by construction activities shall be landscaped and rehabilitated. To protect biodiversity against negative impacts from such activities, projects that are high risk will be excluded from funding by this project.	Contractor	A6-1; Disturbed area (ha) rehabilitated/ reinstated	
		A6-2: Vegetation that does not grow high enough to cause interference with the overhead power lines, or cause a fire hazard, should not be trimmed or cut unless it is growing in the road access area A6-3: Speed of project vehicles should be controlled at a maximum limit of 40 km/h to minimize roadkill A6-4: No hunting by Project personnel is to be tolerated under any circumstances (this measure should be a part of worker codes of conduct) A6-5: Guidance shall be given to all staff that they are not allowed to harm any animals during any routine maintenance of the project's infrastructure.	Contractor	A6-2; No. and type of vegetation cut/ trimmed	
			Contractor	A6-3; No. of speed control signs erected. A6-4; No. of worker CoC prohibiting hunting A6-5; No. of worker CoC prohibiting harm to animals	
A7: Solid and Liquid Waste Impacts (including hazardous wastes)	-Impact on storm water quality and thus water quality in the water bodies in project areas	A7-1: The Contractor should prepare a Solid Waste Management Plan. A7-2: Segregate waste at source	Contractor	A7-1; No. of No. of Contractor - ESMP with solid waste management plan	

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
	<ul style="list-style-type: none"> -Impact on soil quality -Impact on surface water quality; -Impact on ground water quality; and -Impact on ecological receptors or human health 	<p>A7-3: Create awareness among workers on waste management (including appropriate signage)</p> <p>A7-4: Provision of temporary sanitation facilities for the workers</p> <p>A7-5: Provide waste disposal facilities (bins) etc in construction sites</p> <p>A7-6: Dispose all construction and operation waste in accordance with the NEMA's waste management regulations (2006) and also in accordance with the banks ESF requirements and GIIP pertaining to handling and disposal of hazardous and non-hazardous wastes</p> <p>A7-7: Develop a detailed Oil Spill Response Plan (OSRP) which includes community notifications of any significant spills that have the potential to affect communities.</p> <p>A7-8: Refueling of equipment and vehicles will be carried out in designated areas on hard standing ground to prevent seepage of any spillages to ground.</p> <p>A7-9: Hazardous material storage will be on hard standing and impermeable surface and the bulk storage facility will be bunded.</p> <p>A7-10: Hydrocarbon spill clean-up kits shall be available at all locations where refueling or maintenance of vehicles and equipment is done, and responsible people shall be trained in the use thereof.</p>		<p>A7-2; No. of contractors providing facilities for waste segregation</p> <p>A7-3; No. of worker awareness creation meetings</p> <p>A7-4; No. of temporary sanitary facilities provided</p> <p>A7-5; No. of waste bins provided</p> <p>A7-6; Quantity of waste (tons) disposed in compliance with NEMA guidelines</p> <p>A7-7; Detailed OSRP developed</p> <p>A7-8; No. of designated areas for fueling project fleets</p> <p>A7-9; No. of bunded storage facilities for hazardous materials.</p> <p>A7-10; No. of hydrocarbon spill clean- up kits provided</p>	
A8. Access to Infrastructure and Services and Traffic Impacts	<ul style="list-style-type: none"> -Disruption of transit routes -Disruption of normal traffic operations -Wastes from the camp site could be significant and overburden the existing wastes disposal facilities in the area 	<p>A8-1: Methods will be implemented to maintain open, clear, and transparent communication with the local communities regarding the use of local infrastructures by the sub-Project throughout the different phases.</p> <p>A8-2: Engagement with the relevant authorities is recommended in order to avoid damage to common property and minimize access disruption to education and healthcare facilities</p> <p>A8-3: Community Grievance Mechanism will be implemented.</p> <p>A8-4: A Traffic Management Plan shall be developed before traffic movements and construction start in order to minimize traffic disruptions</p> <p>A8-5: Where temporary closure of road is required, alternative access to property will be ensured and local solutions including diversions will be implemented to ensure uninterrupted mobility.</p>	Contractor	<p>A8-1; No. of way leaves signed between the local community and the proponent</p> <p>A8-2; No. of engagements held</p> <p>A8-3; No. of community grievances recorded and resolved</p> <p>A8-4; Traffic management plan developed to minimize disruptions</p> <p>A8-5; No. of diversion notices erected for temporary closure of roads</p>	
A9: Landscape & Visual amenities risks	<ul style="list-style-type: none"> -Impacts on aesthetics of the surroundings with the possibility to affect the neighboring residents. 	<p>A9-1: Any excavated or cut and fill areas will be landscaped and revegetated;</p>	Contractor	<p>A9-1; No. of excavations/ cut fill area landscaped/ revegetated</p> <p>A9-2; No. of cleaned work sites after construction</p>	

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
		<p>A9-2: No debris or waste materials will be left at the work sites, good housekeeping on site to avoid litter and minimize waste</p> <p>A9-3: Towers and structures should have a non-reflective finish;</p> <p>A9-4: Night lighting of sites should be minimized within requirements of safety and efficiency.</p> <p>A9-5: Ongoing rehabilitation of cleared areas to minimize visual scarring and maintenance clearing will be kept to the absolute minimum and should not extend beyond the corridor;</p>		<p>A9-3; No. of towers/ structures with non-reflective finish</p> <p>A9-4; No. of hours of night lighting during construction</p> <p>A9-5; Cleared area (ha) rehabilitated</p>	
A10: Worker's Health and Safety and Workers Management	-Workers are likely to be exposed to work related risks during the construction phase of the project.	<p>A10-1: Develop a Human Resources Policy, which will outline worker rights to be included in all contracts including restrictions on working hours in line with applicable ILO standards, compensation including consideration of overtime, holidays etc.</p>	Contractor/NPCU/CPCU	A10-1; No. of contractor HR policies outlining worker rights developed	For OHS risk assessment refer to the FSRP Labor Management Procedures
		<p>A10-2: Require contractors and subcontractors to put in place policies in line with national legislation and applicable international legislation and Code of Conduct and Policies.</p>	NPCU/CPCU/ Contractor	A10-2; No. of contractor/ subcontractor HR policies incorporating best practices on worker rights in place	
		<p>A10-3: Establish contractual clauses to be embedded in the contracts of all sub-contractors</p>	NPCU/CPCU/ Contractor	A10-3; Sub-contractor contracts with embedded clauses	

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
		<p>A10-4: Pre-employment medical assessments will be put in place as a workforce risk management tool to screen individuals for risk factors that may limit their ability to perform a job safely and effectively. Expected benefits of conducting a pre-employment medical assessment include a safer working environment, reduction in workplace injuries, minimized downtime, matching the capacity of the employee with the role, and overall recruitment cost and risk reduction.</p> <p>A10-5: Ensure that training on health and safety measures is provided to all construction workers prior to starting to work on the Project and that supervisors have adequate experience to deliver on their responsibilities.</p> <p>A10-6: Implement regular health and safety checks and audits of workers, contractors and subcontractors and implementing sanctions in case of breaches of OHS plans and procedures</p> <p>A10-7: Develop and implement a Workers Grievance Mechanism for the Project workforce including contractors and subcontractor's standards and the Project's specific standards. Such audits to include workplace H&S; worker contracts, working hours, pay and conditions; housing and food standards.</p> <p>A10-8: Establish procedure for the recording and analysis of incidents and lessons learned such that additional actions can be implemented to avoid or minimize recurrence of occupational health and safety incidents.</p> <p>A10-9: Ensure that facilities and work sites are designed and maintained such that robust barriers are in place to prevent accidents.</p> <p>A10-10: Ensure that its Code of Conduct is followed to regulate the performance and behavior of all workers, including provision for disciplinary action for anti-social behavior and non-compliance with health and safety regulations such as lack of use of PPE.</p> <p>A10-11: Ensure that adequate clean water, adequate food, and access to medical care is provided to all workers on the worksite and at accommodation.</p> <p>A10-12: Provide condoms (male and female to workers</p>	Contractor	<p>A10-4; No. of workers subjected to pre-employment medical assessment</p> <p>A10-5; No. of workers trained on health and safety measures</p> <p>A10-6; No. of workers subjected to regular health and safety checks/ audits</p> <p>A10-7; No. of grievances recorded and resolved</p> <p>A10-8; No. of OHS incidents registered</p> <p>A10-9; No. of work sites with accident prevention barriers</p> <p>A10-10; No. of work sites complying with COC</p> <p>10-11; No. of work sites where workers access water, food and medical care</p> <p>A10-12; No. of worksites with access to condoms (male/ female)</p>	
A11: Community Health and Safety Impacts	-Increased noise pollution air quality, inappropriate waste handling or disposal, and	A11-1: Develop and monitor the implementation of a SEAH action and response plan, Labour management plan which will include the following measures:	Contractor	A11-1;	GBV/SEAH Prevention and Response Plan, Security Management Plan

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
	<p>accidental leaks and spills, debris and movement of heavy equipment may pose a safety risk to the general public.</p> <p>-Potential impacts on community safety, in particular road accidents, trespass on the sites, and demining activities potentially resulting in accidents leading to injuries or fatalities.</p> <p>~ Environmental health: changes to the environment due to increased noise and vibrations, decreased air quality and inadequate management of waste.</p> <p>~ Impact from workers presence and potential interaction with local populations</p>	<p>-Ensure that all workers are housed in accommodation camps rather than in the local settlements in order to minimize interaction with local communities and related health and safety impacts.</p> <p>-Ensure all workers including contractors and subcontractors undergo pre-employment screening and regular health screening including voluntary screening for STDs.</p> <p>-Ensure any trucking companies employed to work on the Project will have policies around health screening of their workers in line with Project requirements.</p> <p>-Ensure all workers including contractors and subcontractors receive education around transmission routes and symptoms of communicable diseases of concern and STDs.</p> <p>-Undertake community awareness on HIV/AIDS and other STDs</p> <p>- Ensure that communicable diseases prevention guidelines by GoK's Ministry of Health are adhered to during the construction activities including social distancing, provision of face masks to all workers, provision of sanitizers, establishment of hand washing areas and provision of water and soap, conducting temperature checks for all workers, creating awareness on signs and symptoms of communicable diseases, encouraging staff to take tests.</p> <p>-Provide access to health care for those injured by its activities.</p> <p>-Ensure that work sites are fenced and that signs are put up around work fronts and construction sites advising people of the risks associated with trespass. When work fronts are less than 100 meters from a community or house, employ security guards from the local community to prevent trespass.</p> <p>-Undertake a programme of stakeholder engagement and consultation to educate local communities of the risks of trespassing onto sites, the meaning of signs, and the dangers of playing on or near equipment or entering fenced areas.</p> <p>For Dams monitor preparation of the plans for construction supervision and quality assurance, instrumentation, operation and maintenance, and emergency preparedness (see OP 4.37, para. 4(b) and BP 4.37, Annex A).</p>		<p>No. of community health and safety management plans developed and implemented</p>	

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
		<p>A11-2: Develop Emergency Response Plans (ERPs) in cooperation with local emergency authorities and hospitals.</p> <p>-Extend the Worker Code of Conduct to include guidelines on worker –community interactions and provide training on the worker code of conduct to all employees including contractors and subcontractors as part of the induction process.</p> <p>-Provide primary health care and first aid at construction camp sites to avoid pressure on local healthcare infrastructures.</p> <p>-Implement a Community Grievance Mechanism.</p> <p>-Develop and implement a Traffic Management Plan covering aspect such as vehicle safety, driver, and passenger behavior, use of drugs and alcohol, operating hours, rest periods, community education on traffic safety and accident reporting and investigations</p>	Contractor	A11-2; No. of ERPs for each subproject developed and implemented	
A12: Gender-based violence / Sexual exploitation Abuse and harassment at the community level	<p>-Gender-based violence at the community level</p> <p>-Forced Early Marriages</p> <p>-Sexual Exploitation and Abuse</p> <p>-Transactional sex.</p> <p>-Shift in power dynamics in the community or family.</p> <p>-Abusive behavior among project staff</p>	<p>A12-1: Extend the Worker Code of Conduct to include guidelines on worker –community interactions and provide training on the worker code of conduct to all employees including contractors and subcontractors as part of the induction process.</p> <p>A12-2: Develop a SEAH response and Action Plan which should establish appropriate grievance redress; contain procedures for reporting SEAH Incidents: and whistleblower Protection; include safe complaints procedure and referral pathways and adopt survivor centred approach.</p>	Contractor/CPCU/ NPCU	<p>A12-1; No. of employees/ contractors/ subcontractors inducted on worker-community interactions</p> <p>A12-2; No. of SEAH grievances recorded and resolved</p>	<p>The team has prepared a SEAH Prevention and Response Plan</p> <p>Sub project specific Gender Based Violence Action Plans to be developed.</p> <p>Sample Code of Conduct documents have been developed and to be adopted by each contractor for sub projects.</p>
A13: Violation of children rights by contractor and labour force on site	<p>-Violation of children rights by contractor and labour force on site. e.g., child labour, sexual relations with minors etc.</p>	<p>A13-1: Extend the Worker Code of Conduct to include guidelines on worker –community interactions and provide training on the worker code of conduct on child protection.</p> <p>A 13-2: Prepare and implement a Child Protection Strategy</p> <p>A 13-3: Prepare and implement a child protection plan,</p> <p>A 13-4: Monitor the employment registers to ensure workers are aged 18+ years</p>	Contractor/CPCU/ NPCU	<p>A13-1; No. of contractors with CoC including guidelines on child protection</p> <p>A13-2; No. of contractors having child protection strategy developed and implemented</p> <p>A13-3; No. of contractors with child protection plans developed and implemented</p>	<p>Sample Code of Conduct documents have been developed and to be adopted by each contractor for sub projects.</p>

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
				A13-4; No. of contractors complying with minimum employment age requirement	
A14: Archaeology and Cultural Heritage Impacts	-Restriction to access cultural sites. -Destruction of cultural sites during construction or operations	Avoid damage to, relocation of or restricting access to physical, cultural resources. A14-1: Consult community when any community issue arises in order to engage traditional forms of community leadership. Develop stakeholder engagement procedures to guide consultations on cultural heritage A14-2: Work with local community representatives to develop cultural awareness materials (that will cover key issues including the location and importance of all local cultural sites and other cultural sensitivities (graves). Develop stakeholder engagement procedures to guide consultations. A14-3: Should construction activity be required in proximity to existing graves, develop and implement working protocols in consultation with local traditional leaders A14-4: Do not remove any cultural heritage including graves without prior consultation with the communities and fulfilling the legal requirements. Any removal of cultural heritage should be conducted by the best available techniques. A14-5: Establish a grievance procedure to ensure community concerns are addressed. A14-6: Develop a chance find procedure which will detail the appropriate course of action that must be followed for any relevant cultural heritage discoveries in line with National Museums and Heritage Act	Contractor	A14-1; No. of community consultative meetings on any emerging issues of cultural heritage A14-2; No. of appropriate cultural awareness materials developed A14-3 No. of working protocols developed and implemented A14-4; No. of cultural heritage materials removed with prior consultation A14-5; No. of community grievances recorded and resolved is A14-6; No. of chance find procedures developed and adhered to for any cultural heritage discoveries	
A15: Land Tenure Challenges	-Denial of services to project beneficiaries	A15-1: Engage with Ministry of Lands to resolve land related challenges that may inhibit investments.	NPCU/CPCU	A15-1; No. of land use/ access challenges for investments resolved	A Resettlement Policy Framework has already been developed. Sub Project specific RAPs will be developed if determined that there will be displacement.
A16: Displacement Impacts	-Land acquisition for sub projects leading to economic displacement	A-16-1. Develop Resettlement Policy Framework and Income Restoration Plan (IRP)	NPCU/CPCU	A16-1; Project RPF and No. of IRPs developed and implemented	A Resettlement Policy Framework has already been developed.

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
					Sub Project specific IRPs will be developed if determined that economic displacement is likely.
A17: Conflict in Project Areas	Eruption of conflict among communities over access to project services	A-17-1. Develop Stakeholder Engagement Plan including adequate benefit sharing mechanism	NPCU/CPCU	A17-1; SEP developed with adequate provision for benefit sharing	A Stakeholder Engagement Plan has already been developed for the project. A security Management Plan has been developed for the project
A18: Disease Spread (Public Health)	Increase in spread of public health diseases like HIV/AIDS and other STIs due to labor influx	A18: Develop HIV/AIDS mitigation plan Develop Labour Influx Management Plan	Contractor	A18; No. of HIV/AIDS and labor influx management plans developed	
A19: Vulnerable and Marginalized Groups/IP/SSAHUTLAC	Risk of exclusion as a result of withdrawing CIG funding; may not join SACCOs because they are not yet empowered (and it's not easy to force a member to go for SACCO if they do not feel like);	A19: Develop Vulnerable and Marginalized Groups Framework. Leave an open window for VMGs-CIGs, IP-CIGs and perhaps new CIGs in new counties.	NPCU/CPCU	A19; VMGF and No. of VMGPs developed	A Vulnerable and Marginalized Groups Framework has already been developed for the project. Sub project specific Social Assessment and subsequent Vulnerable and Marginalized Groups Plan to be developed for each sub project where VMGs are found to be present.
PHASE		OPERATION PHASE			
BI. Surface Water Quality Impacts due to eutrophication	Impacts on water quality (eutrophication and sediment run-off) leading to deterioration of quality. Deteriorated water quality will impact on fauna if consumed. Deteriorated water quality will impact on community health if consumed.	BI-1. Implement soil conservation and control measures including good agricultural practices	NPCU/CPCU	BI-1; No. and type of soil conservation and control measures developed	
		BI-2. Train farmers on soil conservation and control measures	NPCU/CPCU	BI-2; No. of farmers trained on soil conservation and control measures	
		BI-3. Train farmers on integrated pest management techniques including limited use of chemical pesticides. Develop Integrated Pest Management Framework and project specific Integrated pest Management Plans	NPCU/CPCU	BI-3; No. of IPMPs developed and No. of farmers trained	An Integrated Pest Management Framework has already been developed. Sub project specific integrated pest management plans to be developed for pesticide use.

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
B2. Change in Hydrology	Abstraction of water for water infrastructure projects likely to affect hydrology	B2-1. Obtain water abstraction permit from Water Resources Association	NPCU/CPCU	B2-1; No. of permits for water abstraction issued by WRA	Develop sub catchment management plan (SCMP) to address issue of dam sedimentation and silting up
B3. Soil Erosion and deterioration in water quality	Impacts on water quality (sediment run-off/contamination) leading to deterioration of quality. Deteriorated water quality will impact on fauna if consumed. Deteriorated water quality will impact on community health if consumed.	B3-1. Implement soil conservation and control measures including good agricultural practices B3-2. Train farmers on soil conservation and control measures B3-3. Train farmers on integrated pest management techniques including limited use of chemical pesticides. Develop Integrated Pest Management Framework and project specific Integrated pest Management Plans	NPCU/CPCU	B3-1; No. of soil conservation and control measures developed B3-2; No. of farmers trained on soil conservation and erosion control B3-3; No. of farmers trained on IPMP No. of IPMPs developed	An Integrated Pest Management Framework has already been developed. Sub project specific integrated pest management plans to be developed.
B4: Worker's Health and Safety and Workers Management	-Workers are likely to be exposed to work related risks in the market centres, pack houses, sorting plants	B4-1: Ensure adherence to Occupational Health and Safety (OSH) requirements for workers	NPCU/CPCU	B4-1; No. of contractors adhering to DOSHS requirements	
		B4-2: Provide training to all workers on Occupational Health and Safety (OSH)	NPCU/CPCU	B4-2 No. of workers trained on OHS	
B5. Green House Gas Emissions	ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, eco system services and the environment at the local, regional, and global levels. The current and projected atmospheric concentration of greenhouse gases (GHG) threatens the welfare of current and future generations. At the same time, more efficient and effective resource use, pollution prevention and GHG emission avoidance, and mitigation technologies and practices have become more accessible and achievable Emissions from livestock (methane) may increase the Green House Gas effect.	B5-1: Limit number of sub projects that increase livestock production B5-2: Promote zero grazing B5-5: To avoid or minimize project-related emissions of short and long-lived climate pollutants	NPCU/CPCU	B5-1; No. of sub projects that increase livestock production B5-2; No. of livestock under zero grazing	

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
B6: Lack of Extension Services	-Denial of services to project beneficiaries	B6-1: Develop and implement Stakeholder Engagement Plan B6-2: Ensure that extension services are provided to all beneficiaries	NPCU/CPCU	B6-1; No. and type of stakeholders engaged B6-2 No. of mobilized beneficiaries receiving extension services	Stakeholder Engagement Plan already developed by the project.
B7: Elite Capture	-Denial of services to project beneficiaries	B7: Develop and implement Stakeholder Engagement Plan	NPCU/CPCU	B7; Percentage of beneficiaries satisfied with services provided	Stakeholder Engagement Plan already developed by the project
B8: Pesticide Use Impacts	-Impacts to soil and surface water: flora and fauna including bees; occupational health and safety; community health and safety	B8-1: Develop and implement Integrated Pest Management Plan B8-2: Avoid application of pesticides in protected areas (forests, parks, wetlands) and other critical habits such as bird sanctuaries, bee apiaries etc B8-3: Provide PPEs for applicators of pesticides (gloves, masks, boots) B8-4: Develop and implement a waste management plan for pesticide waste	NPCU/CPCU	B8-1; No. of IPM developed and implemented B8-2; Protected area (ha) where pesticides are not applied B8-3; No. of PPEs provided to users of pesticides B8-4; No. of pesticide waste disposal plans developed and implemented	Integrated Pest Management Framework already developed by the project. Sub project specific Integrated Pest Management Plans to be developed to guide judicious use of pesticides.
B-9: Violation of children rights	-Violation of children rights by engaging them in labor at farm/household level	B9-1: Develop Labour Management Procedures and Plans B9-2: Sensitization and education to households on child labour ramifications B9-3: Employing persons aged 18+ years	NPCU/CPCU	B9-1; No. LMPs developed B9-2; No. households sensitized on child labour B9-3; No. of persons aged 18+ years employed	Labour Management Procedures already developed for the project. Sub project Labour Management Plans to be developed.
B-10: Public Health Disease Spread	Increase in spread of public health diseases due to water infrastructures (<i>schistosomiasis</i> , <i>river blindness</i> , <i>Lymphatic filariasis</i> (<i>elephantiasis</i>) and malaria)	B10; Implement integrated vector control strategies	NPCU/CPCU	B10; No. of integrated vector control strategies implemented	
B-11: Solid and Liquid Waste Impacts	Waste generated from the market centers, sorting centers, aggregation centers etc. -Impact on soil quality -Impact on surface water quality. -Impact on ground water quality; and	B11-1: Project facilities to develop and implement Solid Waste Management Plan. B11-2: Segregate waste at source B11-3: Create awareness among workers on waste management (including appropriate signage) B11-4: Provide waste disposal facilities (bins) etc in construction sites	NPCU/C	B11-1; No. of waste management plans developed and implemented B11-2; No. of facilities segregating waste at source B11-3;	

Impact Type	Potential Impact	Mitigation Measures	Responsible Party	Indicators for impacts	Already Developed Plans
	-Impact on ecological receptors or human health	BII-5: Dispose all operation waste as per the requirements of the Banks ESF and in line with GIIP also in accordance with the NEMA's waste management regulations (2022)		No. of workers sensitized on solid waste management BII-4; No. of sites with waste disposal facilities BII-5; No. of contractors disposing of waste as per the waste management regulations (2022) and in line with the Banks ESF	

6.6 Environmental and Social Management Process

6.6.1 Monitoring Plans for Environmental and Social Indicators

208. The goal of monitoring is to measure the success rate of the project, determine whether interventions have resulted in dealing with negative impacts, whether further interventions are needed, or monitoring is to be extended in some areas. Monitoring indicators will be very much dependent on specific project contexts (Table 6.4).

Monitoring Levels - Overall Project Level

209. The Ministry of Agriculture & Livestock Development through the established NPCU for this project will be responsible for monitoring and reporting on compliance with the ESMF. The NPCU will report results of this monitoring to the Bank on a quarterly basis.

Bank's Monitoring Support

210. The Bank will provide the second line of monitoring compliance and commitments made in the ESCP through supervision albeit in a less frequent manner and detail as compared to the first line of monitoring that will be undertaken by the NPCU. The Bank will further undertake monitoring during its scheduled implementation support missions.

Table 28: Monitoring Indicators

Monitoring Level	Monitoring Issue	Verifiable Indicators	Responsibility
ESF Level	<ul style="list-style-type: none"> • Adequate dissemination of ESMF, RPF, VMGF, LMP, SEA/SH Prevention and Response Plan & IPMPF to stakeholders. • Capacity building and training programs 	<ul style="list-style-type: none"> • Record of consultations and meetings. • Workshop reports. 	<ul style="list-style-type: none"> • MoA&LD
RPF level	<ul style="list-style-type: none"> • Access to land and loss of income • Disclosure of RPF 	<ul style="list-style-type: none"> • IRPs prepared, approved and implemented • Micro projects/sub projects with land documentation completed • Asset /income loss compensated 	<ul style="list-style-type: none"> • MoA&LD • NPCU • CPCU
VMGF	<ul style="list-style-type: none"> • Disclosure of VMGF • Capacity building 	<ul style="list-style-type: none"> • Record of validation meeting • No. of capacity building workshops 	<ul style="list-style-type: none"> • MoA&LD • NPCU • CPCU

		<ul style="list-style-type: none"> • Attendance records for capacity workshops • VMGPs developed and implemented 	
LMP	<ul style="list-style-type: none"> • Disclosure of LMP • Capacity building 	<ul style="list-style-type: none"> • Record of validation meeting • No. of capacity building workshops • Attendance records for capacity workshops • Codes of Conduct developed for various categories of workers • Cases of child labour reported and resolved. 	<ul style="list-style-type: none"> • MoA&LD • NPCU • CPCU • Contractors
SEAH Prevention and Response Plan	<ul style="list-style-type: none"> • Disclosure of SEAH • Capacity building 	<ul style="list-style-type: none"> • Record of validation meeting • No. of capacity building/sensitization workshops • Attendance records for capacity workshops • Record of cases of SEAH and actions taken 	<ul style="list-style-type: none"> • MoA&LD • NPCU • CPCU • Contractors

6.7 Reporting

6.7.1 Regular Reporting

211. MoA & LD will be required to prepare and submit to the Bank regular 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. Reporting will be six-monthly and annually throughout the project implementation period. Such reports should be submitted to the Association no later than 14 days after the end of each reporting period

6.7.2 Incidents and Accidents

212. MoA & LD will promptly notify the Bank using the Incident Form within 48hrs (of any 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, inter alia, cases of sexual exploitation and abuse (SEA), sexual harassment (SH), and accidents that result in death, serious or multiple injuries, forced or child labor. Following a detailed investigation of the incident through a Root Cause Analysis (RCA), the NPCU will provide a comprehensive Incident Report regarding the incident or accident, the immediate measures taken or that are planned to be taken to address it, and measures to prevent its recurrence. The Incident Report shall be submitted to the Bank within fifteen days.

7 COORDINATION & IMPLEMENTATION ARRANGEMENTS

7.1 Introduction

213. A National Project Coordination Unit has been established consisting of seventeen (17) officers responsible for day-to-day implementation of activities under the leadership of the National Project Coordinator (NPC). Among them are Environmental Specialist, Social Standards Specialists, Monitoring and Evaluation Specialist, Financial and Procurement Specialists. The overall implementation oversight is carried out by the National Project Coordinating Unit (NPCU) headed by National Project Coordinator (NPC) and the NPC reports to the Project Steering Committee chaired by the Principal Secretary, State Department of Agriculture, MoALD. Prior to appraisal MoALD prepared and disclosed an Environmental and Social Commitment Plan (ESCP), and Stakeholder Engagement Plan (SEP), which includes guidance on outreach activities. There are other environmental and social risk instrument that have been prepared to complement this ESMF and IPMP and include Gender Based Violence (GBV) Action Plan and Labor Management Procedures (LMP), Security Management Plan (SMP) Vulnerable and marginalized groups framework which have been prepared. Further, during implementation, site specific ESIA/IPMPs SPR, CPR will be prepared. The sub project specific IPMPs will include as annexes Waste Management Plans, Income restoration plans and Occupational Health and Safety Plans.

214. The ESMP is a key output of the sub project ESIA (for substantial and high-risk projects) or a standalone subproject instrument (in case of low and moderate risk projects) and will form the backbone for implementation of safeguards during project implementation, operation and decommissioning. Its implementation costs must be well defined and included in the overall project implementation cost. Sub-project specific ESMPs should be prepared after considering comments and conditions from the relevant agency providing environmental clearance and the WB. The instruments prepared at county level will be reviewed by the National E&S team and submitted to the Work bank for a 'no objection' (NO) clearance. Its only after the NO that county teams can submit to NEMA (for a Certificate) and procurement for ESS tender inclusion.

Table 29: Summary of Implementation arrangement

Level	Institutions	Implementation Mandate
National Level	The office of the Cabinet Secretary, Agriculture	Oversight and awareness creation on the project frameworks
	National Project Steering Committee	Approval of proposed investments at the National level

Level	Institutions	Implementation Mandate
	National Technical Advisory Committee	Technical advice on the proposed investments
	National Project Coordination Unit	Overall project coordination and capacity building of CPCUs and relevant stakeholders
	National state and other non-state stakeholders i.e. NEMA, NLC, CSOs	Supports the implementation of the project by ensuring compliance to the various policies, regulations and guidelines
County Level	The office of County Executive Committee Member, Agriculture, Livestock and Fisheries	Oversight, awareness creation on the project at the county level and a link between the NPCU and the CPCU
	County Project Steering Committee	Approval of all the proposed investments at the County
	County Technical Advisory Committee	Technical advice on proposed investment
	County Project Coordination Unit	Overall project coordination at the County level
	County Environmental Committee	Technical guidance and advice on the engagement of experts for environmental and social impact assessment
	County Technical Departments (CTDs)	Technical Support for the various project interventions
	County level stakeholders i.e. CDE, County NLC etc.	Supports project implementation environmental and social issues at the County Level
Community Level	Community Driven Development Organizations (CDDCs, FPOs, PMCs and IWUAs etc.)	Community mobilization and coordination of development at the ward level
	Farmers groups (CIGs and VMGs)/individual farmers	The project beneficiaries
	Community level stakeholders	Support implementation of Environmental and social issues at the community level

7.1.1 Community Level

215. FSRP will facilitate the Participatory Integrated Community Development (PICD) process to ensure effective participation of target farming communities in Community Driven Development (CDD) sub-project identification, planning and implementation. PICD is a combination of different participatory methodologies for starting and sustaining 'community conversations' that enable community groups to reflect and prioritize their development needs. Consequently, the farming communities (CIGs/VMGs and FPOs) are expected to identify, plan and implement appropriate sub-projects to address the prioritized needs.
216. **Subprojects:** Any activity which is directly being implemented by project beneficiaries at farm, community, regional and National levels as a result of undergoing inclusion through a participatory process and funded by the World Bank under FSRP. This could be micro projects, Farmer Producer Organizations investments (Value Chain Upgrading Matching Grants - VCUMG) and Enterprise Development Plan Grants - EDPG) and Value chain ecosystem investments at County, Regional or National levels) proposed and approved under the project.
217. For CIG/VMG based sub-projects, all members will identify the investments during the Participatory Integrated Community Development (PICD) process and provide signed minutes of the deliberations. They will develop group micro-investment proposals for small scale infrastructure to support aggregation and value addition with the guidance of the Social Accountability and Integrity Committee (SAIC), CDDC members and the Sub-County Technical teams (SCTTs). The SAIC with the assistance of SCCTs will then administer the Environmental and Social (E&S) screening checklist (Annex 5) and develop an ESMP (where necessary). The micro-investment project proposals with ESMPs and the corresponding filled E&S checklists from each CIG/VMG will be presented to the NEMA officer for concurrence. All micro-project investments will then be forwarded to the CPCU. The E&S compliance documents at this level will be the group registration certificate, CIG/VMG micro-investment proposals, CDDC minutes, the filled E&S checklist and land access documents described in the RPF for FSRP. The screening will depend on the specific sub-project under consideration. SAIC will be involved in screening of micro-projects with support from CPCU E/S experts; County-wide sub-projects will be screened by CPCU ES experts; while inter-county sub-projects (regional and national) will be screened by NPCU. The Sub County Technical Teams (SCTT) and the SAIC will be responsible for the development of the community level agreements which will be witnessed by the local administration officers and endorsed by a commissioner of oaths.
218. The FPOs will identify the investments that will have significant positive impact in the value chain development and develop proposals for consideration for funding under FSRP. The FPO supervisory committee will guide the management and the members to administer the E&S checklist and share with the NEMA officer for guidance on the

appropriate compliance tool (simple ESMP, SPR or CPR). The E&S compliance documents at this level are FPO proposals, feasibility study reports, approved designs, statutory requirements and approved ESIA reports.

7.1.2 Screening for FSRP Investments

219. Investments for the newly formed CIGs/VMGs in FSRP will be developed after the PICD process. The groups will elect their officials and SAIC representatives who will be sensitized and then elect their Community Driven Development Committees (CDDCs). The CIGs will develop proposals for funding under FSRP. These will be discussed at the CDDC and rationalized depending on the available funds. The proposals that will be approved at CDDC level will be subjected to the environmental and social standards checklist by the communities under the leadership of the SAIC and the Sub County Technical Teams (SCTT). All the proposals will be further screened by the County E&S compliance team (CESCO and CSSCO) and a team of POEs then presented to the NEMA director for comments and recommendation of the appropriate ESS compliance tools. The E&S compliance team, POEs and the SCTTs will then review the proposals and, depending on the advice from the NEMA County officer, develop the environmental and social management plans (ESMPs) which will ultimately be discussed and adopted by the CIGs/VMGs. The proposals will be discussed and approved by the CTAC and CPSC for funding. The E&S compliance team, SCTTs and the POEs will periodically monitor the implementation of the ESMPs
220. Likewise, the proposals for farmer producer organizations will be developed by the FPOs after the PICD process and followed by county value chain stakeholders' fora for each value chain. The POs supervisory committees, (equivalent of the SAIC) and the SCTT will subject all the proposals to the ESS checklist, reviewed at the County level and shared with NEMA office for advice on the appropriate ESS compliance tool. The SCTT and the supervisory committees will develop the ESMP where necessary. Those that require ESIA will be shared with Lead experts for development of ESIA (SPR/CPR). The E&S compliance team and the POEs will periodically monitor the implementation of the ESMPs
221. The Some ward level Sub projects will be identified during the PICD process and will form part of the Community Action Plans (CAPs). The proposals for these investments will be developed by the technical teams at the sub-counties. The Project Management Committees (PMCs) will be democratically elected by the community members to spearhead the development. The CPCUs and the PMC members will subject the proposals to ESS checklist and share the same with the NEMA officers for advice on the appropriate ESS compliance tool. Such investments will require a SPR or CPRs. The CPCUs will identify the lead experts who will conduct assessment and develop the ESIA reports. One of the key activities of the ESIA process will be the public participation where the stakeholders shall be consulted to provide their views on the investment. Their views will form part of the ESIA reports. The CESCO/CSSCO will monitor the implementation of

the ESMPs with oversight from the NESCS/NSSCS will also follow up on the implementation of the ESMPs,

7.1.3 County Level

222. An environmental and social expert at CPCU with the assistance of a county E&S compliance team will receive, evaluate and present the CIG/VMG and FPO sub-project proposals to the CTAC and CPSC for technical guidance and approval. The CPCU will also present the sub-project proposals to the County Environmental Committee (CEC) for deliberation and technical guidance on the engagement of a lead expert for Assessment and development of the various ESIA reports. All the counties will be expected to form E&S compliance teams to monitor compliance to ESS issues at the CIG/VMG, and FPO levels.

223. FSRP will also initiate various Sub Projects investments such as (Markets, Community Irrigation Projects, water harvesting structures, water storage structure, aggregation centers, storage facilities) at County, Regional and National levels. The investments will be identified during the PICD as priority investments at the different levels and their implementation will be spearheaded by Project Management Committees (PMCs) or the investment may have been prioritized in the CIDP. The CPCU with assistance from NPCU will guide the PMC to administer the E&S checklist, develop investment proposals while undertaking due diligence on the availability of suitable land without encumbrances and share the documents with the NEMA Officer for advice on the appropriate E&S compliance tool. The CPCU/NPCU will guide the PMC to engage a lead ESIA expert to conduct assessment for eventual development of the ESIA report after the investment is approved by the CTAC, CPSC and the NTAC.

7.1.4 National Level

224. The Environmental and Social Safeguards compliance experts at the NPCU with the assistance of a compliance team will coordinate the capacity building for the CPCU and the County project teams to ensure that all the investment supported under FSRP will be subjected to the E&S checklist screening and the appropriate compliance measures according to ESIA reports approved by NEMA are observed.

225. The NPCU will receive sub-project proposals at County, Regional and National levels from CPCUs and subject them to peer review for technical and statutory compliance and submit to NTAC for approval. The investments will be implemented with oversight from PMCs and for those with contracted civil works; the contractor will develop a Contractor ESMP based on the approved ESIA which will be the guide for full compliance during the construction phase. The PMC will be expected to comply with the ESMP during the operation phase of the investments. PMCs will be expected to engage a lead expert to

carry out annual environmental audits as per the EMCA requirements during the operational phase.

226. The EMCA 1999 and (amendment) Act 2015, places the responsibility of environmental protection on NEMA as the coordinating agency. NEMA is charged with the overall role of providing oversight in regard to monitoring for all project activities that have potential impacts on the environment in Kenya. NEMA will undertake periodic monitoring of the projects by making regular site inspection visits to determine compliance with the approved sub projects ESIA or ESMPs and will further rely on the environmental audit reports submitted for each project annually as required by EMCA as a way of monitoring. NEMA is mandated to provide approvals and ESIA/CPR/SPR licenses based on the reports submitted. Without NEMA's approval, the sub project will not proceed to implementation. All monitoring reports as well as annual environmental audit reports will be submitted to NEMA as specified by the environmental assessment and audit regulations.

7.2 Environmental and Social Instruments

227. The Environmental Management and Coordination Act (EMCA) 1999 and EMCA (amendment) 2015, classifies projects into High, Medium, and Low risk. It further lists projects that would fall under each of the risk classifications. The FSRP sub projects are categorized as Low and Medium requiring preparation of SPR or CPR. Although the new NEMA regulations allow the medium risk investments to develop SPRs, the social risks associated with investments under FSRP will be expected to also develop VMGPs and IRPs. Community labor agreements will also be prepared for sub projects involving community labor.

228. Legal Notice 31 and 32 prescribes the risk classification of projects to include Low, Medium, and High and provides guidance on what ESIA report to prepare based on the risk classification. All projects that are classified as Low or Medium risk are required to submit a SPR to NEMA. FSRP sub projects are likely to be classified as Low or Medium risk. High risk categorized sub projects under the WB classification are excluded from the project funding. Simple ESMPs will be prepared for micro projects and may not require NEMA certification to be implemented.

7.2.1 Development of ESIA Reports

229. Based on the guidance by NEMA as illustrated in Figure 7.2, on whether to prepare SPR or CPR for sub projects, FSRP will prepare draft ToRs for ESIA (see Annex 6 for sample ToR). FSRP will identify NEMA registered lead experts to conduct assessment and prepare SPR or CPR for approved sub-projects. All the ESIA reports (SPR and CPR) will be reviewed to ensure that they meet the ESS requirements.

7.2.2 Review of the ESIA Report

230. The SPR and CPR will be reviewed by the FSRP /POEs at the National and County level in consultation with NEMA, line ministry departments and other relevant stakeholders before submission to NEMA for issuance of license for CPR and approval for SPR. The approved reports will be disclosed in the MoA&LD website. The reports will also be disclosed in the project areas and made accessible to the beneficiaries. The World Bank will have the discretion to sample the ESS instruments for review at any point in time to ensure the prepared ES instruments meets the required standards. The reviewed and approved reports will be disclosed in the external World Bank website.
231. The SPRs and CPRs for every sub project will be submitted to NEMA for review and approval. Typical outcomes of review from NEMA are shown in Table 26.

Table 30: Possible Outcomes of NEMA Review of Project Reports

Outcome	Recommendation	Important precautions
CPR or SPR found to have no significant Social and Environmental Impacts or discloses sufficient mitigation measures	An Environmental License will be issued by NEMA	Report must disclose adequate mitigation measures and show proof of comprehensive consultations within the area of influence.
A proponent is dissatisfied with the outcome of the NEMA review.	An Appeal is provided for in accordance with the EMCA, 1999	

7.2.3 Annual Environmental and Social Audit

232. Independently commissioned environmental and social audits will be carried out on an annual basis for specified types of subprojects as stipulated in the EMCA 1999, and the environmental permitting conditions. An audit for selected specific sub project is necessary to ensure (i) E&S compliance (ii) that the issues guided in this is being implemented appropriately, and (iii) that mitigation measures are being identified and implemented. The audit will be able to identify any amendments in the ESMF approach that are required to improve its effectiveness. (Annex 7, Sample ToR for EA). Besides these Audits, continuous monitoring of subprojects and microprojects will be undertaken to ensure compliance to E&S issues and also to address emerging issues that may not have been captured in the ESMPs. At the end of project implementation, a Closeout Audit will be commissioned to gauge its overall impacts on the community and environment, and inform future decision making on similar projects.

7.2.4 Monitoring of Environmental and Social Compliance Status

233. All project results indicators will be disaggregated by gender to monitor women's participation in the project interventions. The project will also capture gender-disaggregated environmental and social data, where applicable.
234. **Compliance with the ESMF.** The NPCU at the MoALD has established a monitoring system involving the PCU staff at national and county level, as well as community groups of CIGs/CDDCs to ensure effective preparation and implementation of the sub-projects ESMPs. A set of monitoring indicators shall be determined during sub project specific ESMP implementation and will be guided by indicators contained in this ESMF and project PAD document. The PCU support consultants will carry out monitoring alongside World Bank social staff. Appropriate monitoring formats will be prepared for monitoring and reporting
235. Implementation of on the environmental, social, health, and safety (ESHS) performance of the Project, including but not limited to the implementation of the ESS and in particular ESMP, status of implementation of E&S instruments required under the ESMF instruments such as ESMPs, ESIA, stakeholder engagement activities, and functioning of the grievance mechanism(s). This will be tracked by CPCUs ESS team and reports shared with the NPCU within two weeks after completion of the exercise. NPCUs ESS team will conduct M&E on a quarterly basis and the reports will be shared with the Bank within two weeks after completion of the exercise.

7.2.5 Close Out Audit

236. Towards the FSRP closing date (2nd half of the final year), a close out audit will be conducted to assess the overall Kenya Government (borrower) performance and the project's compliance with the World Bank Environmental and Social standards requirements and to identify the problems that arose, their resolution, and any significant deviations during implementation.

7.3 Capacity Building, Training and Technical Assistance

237. This chapter describes the existing human resources capacity within the MoA&LD that will provide focal support in the management and mitigation of environmental and social risks. It also details measures that will be implemented to strengthen environmental and social risk management at NPCU and CPCU and increase understanding of World Bank's ESSs as applicable to the FSRP.

7.4 Institutional Capacity for ESMF Implementation

238. The MoA&LD has experience in implementing different projects supported by the World Bank financing which used the Environmental and Social Operational Policies

including Kenya Climate Smart Agriculture Project, National Agriculture and Rural Inclusive Growth Project, Regional Pastoral Livelihood Resilience Project and Emergency Locust Response Project and others. Within the MoA&LD a Project Coordination Unit responsible for day-to-day implementation of activities under the leadership of the National Project Coordinator (NPC) has been established and staffed with an Environmental Specialist, Social Specialist, as well as Monitoring and Evaluation Specialist and GBV Expert among other non-environmental and social experts.

239. The project team has broader understanding of managing social risks and impacts on WB funded projects and experience of implementing NARIGP and KSCAP. Still, the NPCU, County teams and community institutions (CIG/VMG/CDDCs/FPO) will require intensive training and technical support for FSRP. This is especially during preparation of County Development Plans, applying exclusion criteria and incorporation of social issues such as labor management, meaningful stakeholder engagement in culturally appropriate manner, ascertaining land ownership, management of economic loss, ensuring VMGs are consulted upon and benefit from the project. In order to strengthen the capacity of the NPCU, CPCU and other implementing agencies, the following capacity building efforts are recommended.

- Capacity building at the national and county levels on ESF/ESSs,
- Training on ESIA/OSH national processes,
- Monitoring ofESIAs, ESMPs, VMGPs (where applicable) and related safeguard management plans,
- Training in Grievance Redress Mechanism and Public consultations in the SEP process
- Community mobilization / participation and social inclusion, and
- Integration of sub-project ESMPs into the FSRP cycles during their project implementation stages.

240. Effective implementation of the ESMF will require adequate capacity enhancement within institutions and stakeholders, especially regarding monitoring and evaluation. This calls for building the capacity of implementers at the Project Coordinating Unit and project implementing structures including at the National, County and Community levels. The Table below Error! Reference source not found.shows the indicative budget for implementation of ESMF

7.5 Estimated implementation Budget

241. The total estimated cost for the implementation ESMF is US\$ 2,290,000. The specific activities and corresponding estimated costs for the implementation of the ESMF and related capacity building activities are as given in the Table below.

Table 31: Overall Estimated Costs Budget for implementation of ESMF

Activity	Description	Unit cost, US\$
World Bank Environment and Social Framework / Environment and Social Standards, including OHS requirements	Training Project Staff on the new ESF/ESSs Awareness of project beneficiaries of the ESS requirements	25,000
Training on ESIA/OHS national processes	Training of the project staff (NPCU & CPCU) on the ESIA / OHS national implementation processes	25,000
Implementation of the sub project Environment and Social Impact Assessments, ESMPs and related project safeguard management plans, such as VGMPs, GBVAP, and Security Management Plan.	Monitoring of sub project ESIAs, ESMPs and related project safeguard management plans	500,000
Stakeholder Engagement Plan	Public consultations in the SEP process & GRM Mechanisms. Radio, TV discussions, Newspaper adverts on issues relating to ESMF	220,000
Implementation of Grievance Redress Mechanism	Public awareness creation on GRM process, training of project workers on GRM Mechanisms.	220,000
Community mobilization / participation and social inclusion	Training workshop/seminars on Program for project beneficiaries Integration of sub-project ESMPs during project implementation stages. Skills on screening and use of the E&S Checklist Conflict Resolution and Participatory M&E and reporting Gender Screening & training on the CIDP	250,000
Preparation of sub projects ESIAs, ESMPs and related safeguard management plans	Recruitment of Consultants and experts to prepare and review the sub project ESIAs and ESMPs	1,000,000

Activity	Description	Unit cost, US\$
Monitoring Requirements for all projects safeguard instruments	Training of the implementing entities on the monitoring requirements for the project and sub project safeguard instruments	50,000
GRAND TOTAL		2,290,000

8 PUBLIC CONSULTATION, DISCLOSURE AND GRIEVANCE MECHANISM

242. This chapter describes the consultations conducted during the preparation of the ESMF, the disclosure arrangements and the grievance mechanism to be put in place for use during the project implementation.

8.1 Public Consultation

243. MoA&LD presented this ESMF as a draft to first round of identified stakeholders as part of public consultation and more specifically to seek input from the stakeholders on site selection, alternative assessment, potential environmental and social impacts and mitigation measures and planning of the FSRP on the 15th February 2023 at Lysak Haven Park Hotel Machakos attended by 74 participants from various counties. (Details of the participants has been annexed in Annex I for reference.) The feedback obtained from this initial consultation has been used to inform the process adopted in this ESMF , Further consultations with project affected persons will be done to inform design alternatives, SACCO and FPO design and their implementation.

244. The issues that were of community members' concerns were Mobilizations, Community representations, Labour (Child and contractual), issues, gender issues, conflicts and land take amongst others.

245. Those which were of government staff included Safeguards of community resources, Value chains selection, PoEs selections, inclusions of lessons learnt from KCSAP, ELRP and NARIGP. The detailed issues that arose from the stakeholders and the responses including list of 1st round of participants are included in this ESMF (refer to Annex I).

246. The participants were taken through the FSRP concept presentation as well as the requirements of Environmental and Social Framework instruments including Environmental Social Management Framework (ESMF); Vulnerable and Marginalized Group Framework (VMGF); Labor Management Procedure (LMP); Resettlement Policy Framework (RPF); Sexual Exploitation Abuse and Harassment (SEAH) Prevention and Response Plan; Security Management Plan (SMP); and Framework Integrated Pest Management Plan (IPMP). This was an important stage to allow stakeholders to better understand the scope, impact and risks of the Project, and potential opportunities; to make available Project-related information as early as possible. Given the nature of the Project, there would be multiple rounds of consultations both at the national and county level on key areas like land acquisition in component 2 and 3, SEAH, Security related issues and functionality of the GM etc. The first consultation was held between February 13th to 16th. The consultations had a total of seventy-four (74) participants including 23 Indigenous People Community Driven Development Committee Members; 40 (County

Project Coordinators and County Environmental and Social Safeguards Officers County project officers) from the proposed 13 counties; and 11 (NPOEs, NPCU (KCSAP, ELRP, and NARIGP) and MoALD).

247. Environmental and social aspects such as mobilization and election of community committees, inclusion, land, grievances, labour, GBV/SEAH, access and use of the various investments, and disclosures; information pathways were discussed extensively and the consultations documented. The full documentation of this consultation is also attached as Annex I showing the lists of participants, feedback and response from various Focus groups.
248. The borrower has developed a Stakeholder Engagement Plan (SEP) alongside this ESMF document as guided in the ESCP. The Stakeholder Engagement Plan (SEP) lays out the overall consultative processes of the Project with its different stakeholders. In principle, in case there are service providers overseeing sub-component activities guidelines of participatory engagement and consultation methods, especially with affected communities and beneficiaries. This follows specific tools and methods of community consultations that FSRP have developed. This SEP will be updated to include these strategies.
249. Stakeholders will be kept informed as the project developments, including reporting on project environmental and social performance and implementation of the stakeholder engagement plan and grievance mechanism. All stakeholder engagement meetings will have minutes, which will be stored in the project stakeholder engagement database; this will be to ensure that (i) there are records that can be referred to and that all views raised are taken into consideration, and (ii) commitments made are delivered upon. In addition, the outcomes of the stakeholder engagement activities with comments that have been considered will be reported in the ESCP and monitoring progress reports by all parties. Despite this being for internal use only, it will result in an annual report on stakeholder engagement under the project.

8.2 ESMF Disclosure

250. The ESMF will be disclosed in accordance with the ESS 10 disclosure standards. The ESMF and IPMP will be disclosed on the website of MoA&LD and forwarded to the Bank for disclosure at the Bank's external website. The ESMF will also be disclosed in the project areas for access by the beneficiaries.
251. A Summary of the key issues in the ESMF shall be done and translated into Kiswahili to ensure inclusivity.

8.3 Grievance Mechanism

252. The objective of grievance handling systems and procedure is to establish for the communities a mechanism for raising diverse complaints related to the sub project

activities during the sub project phases and having such complaints resolved as amicably as possible through acceptable and binding corrective actions. The following guidelines are to be followed in design of project specific GM:

- Proportionality
- Cultural appropriateness
- Accessibility
- Simplicity
- Transparency and accountability.

253. KCSAP, NARIGP and ELRP have a functional GM that will be adopted and tailored to manage grievances from FSRP project interventions at different geographical and temporal dimensions in accordance with implementation procedures. The GM will address concerns and complaints promptly and transparently with no cost or discrimination towards project affected communities. Social safeguards compliance experts stationed at the NPCU and CPCU will be the focal point for handling grievances related to the project.

254. MoA&LD has prepared a Stakeholder Engagement Plan (SEP) which provides the framework for identification of stakeholders, gauging stakeholder interest and providing systematic means and processes for inclusive and meaningful engagements with the stakeholders and communities in a way that influences project design and implementation under all components. Based on the understanding of the project areas and the stakeholders from SEP, an indicative list of the internal and external types of grievances has been identified.

255. **Internal Grievances:** Grievances from Employees (including both direct and indirect employees, including local workers and migrant workers through contractors):

- Complaints pertaining to amount of wage, salary, other remuneration or benefits as per Company's Human Resource policy
- Gender discrimination
- Workplace Sexual harassment
- Violence against children e.g., child labour.
- Issues related to worker's organization
- Labour Accommodation.
- Health and Safety issues; and
- Extended working hours.

256. **External Grievances:** Grievances from community members:

- Issues related to sexual exploitation and abuse by project workers against community members;
- Issues related to gender-based violence at the community-level e.g., domestic violence;
- Issues related to child labour and protection;
- Issues related to transportation and traffic;
- Increase in environment pollution;

- Impact on community health;
- Disturbances to locals due to influx of migrant workers in the area;
- Issues arising out of sharing of employment and business opportunity; and
- Concerns over the impact on local cultures and customs.

257. The list of grievances will be regularly updated as and when the new one arises.

8.3.1 Grievance Management and Reporting Levels

258. NARIGP/KCSAP and ELRP have a functional GM which will be adopted and tailored to manage grievances from diverse FSRP project interventions at community, county, regional and national levels. The GM will address concerns and complaints promptly and transparently at no cost or discrimination towards PAPs. The first contact for grievances management in FSRP will be the SAIC members at the community who will receive, document and resolve any grievances that arise. It is expected that most grievances will be resolved at this level but those that are not will be escalated to the CPCU (CSSCO and CESCO) for reception, documentation and resolution. Any grievances not resolved at CPCU will be referred to the County Grievances Management Committee (CGMC). Any grievances that will not be fully resolved at the County level will be referred to the NPCU (NSSCO and NESCO) for reception, documentation and resolution and any that are not finalized will be referred to the National Grievances Management Committee (NGMC). The contact details for the contact persons at the SAIC, CPCU and NPCU will be shared with the stakeholders at the start of the project activities. The project will disclose a toll-free number for use by all PAPs to express their feedback on the project activities. The telephone numbers for the contact persons at the SAIC level, CPCU and NPVU will also be shared with project stakeholders for use when they wish to share feedbacks. There are 5 levels of grievances management proposed in this ESMF, but which will be revised and elaborated further following the completion of project wide GM within the first 6 months of project effectiveness.

8.3.2 Level I: Project Grievance Management Committees

259. All project sites/locations will establish Site Project Level Grievance Management Committees. These committees will be responsible for handling and resolving all environmental and social issues related to the investments. The composition of the committees will include:

- Office of National Government (represented by chief and or assistant chief).
- Community representatives (youth, women, men).
- Representative from a Civil Society Organization (active in the area in the field of public health, agriculture, water) etc.

8.3.3 Level 2: Sub County Grievance Management Committees

260. In each of the Counties, a Sub County Grievance Management Committees will be established. Grievances that cannot be resolved by the site Grievance Management Committees will be escalated to the Sub County Grievance Management Committees. The composition of the Sub County Grievance Management Committee will include:

- Sub County Technical Team
- Office of Sub County Commissioner representative
- Community representatives (youth, women, men)
- Representative from a Civil Society Organization (CBO, NGO, FBO) (active in the area in the field of public health, agriculture, water) etc.

8.3.4 Level 3: County Grievance Management Committees

261. In each of the Counties, a County Grievance Management Committee will be established and will be coordinated by the already established County Project Coordinating Unit. Grievances that cannot be resolved by the Sub County Technical Teams, will be escalated to the County Grievance Management Committee where the environmental and social specialist of the CPCU will double up as the GRM expert and focal point. The composition of the County Grievance Management Committee will include:

- CPCU
- County Commissioner representative
- Community representative
- Representative from a Civil Society Organization (active in the area in field of public health, agriculture, water etc)

8.3.5 Level 4: National Project Coordinating Unit

262. The national grievance management committee will be established and will be coordinated by the already established National Project Coordinating Unit. A GM expert will be stationed at the NPCU and will handle all the grievances that are escalated by the CPCUs for resolution. The GM expert will be the main focal point for GM handling but will be supported by a team of experts.

8.3.6 Level 5: Judicial Recourse

263. In case the K-FSRP GM will not allow an amicable agreement to be reached, the complainant can resort to justice within Kenya's legal system (and could at any time even without going through the established committees) at their own cost.

8.3.7 Publicizing and Disclosure of the GM

264. The project wide GM will be disclosed to the stakeholders through written and verbal communication. The mediums to be used for this purpose are public meetings, group

discussions, electronic media (radio) etc. and will be elaborated in the project wide GM which will be set up. The project wide GM disclosure will be done along with the disclosure of other plans

8.3.8 Receiving and Recording Grievances

265. As part of the GM, the grievances from the stakeholder may be communicated verbally (in person or over a telephonic conversation) or in written form (in the format given below). A sample grievance form is in Annex 10 but will be elaborated further upon completion of project wide Grievance Redress Mechanism.

8.3.9 Maintaining a Grievance Register

266. Each grievance thus received, shall be recorded in a grievance register. The format for the grievance register shall be as outlined in Annex 11. The grievance register shall be updated at each stage of the grievance redress.

8.3.10 Acknowledgment of Grievance

267. Upon the completion of the recording of the grievance, the stakeholder will be provided with an acknowledgment of the receipt, along with a summary of the grievance (Box 9.1).

Box 9.1 Sample Acknowledgement Receipt for Claimant

Dear (enter name of the aggrieved)

Date:.....

RE: Grievance (Enter Subject Matter)

The Grievance Management Committee (**mention level**) is writing to you regarding the grievance received on (**enter date**) with the issue/subject being (**summarize the grievance/complaint/concern**).

Grievance Management Committee will begin investigating this grievance and intend to revert back to you not later than 14 working days from the date of receipt of the complaint.

Grievance Management Committee (Grievance Coordinator) will serve as the point of contact for this case and will update you as necessary. In the meantime, please do not hesitate to contact him should you have any questions.

Kind Regards

Signature:.....

Enter name:.....

Grievance Co-ordinator

N/B

Medium of initial grievance response by Grievance Management Committee could be through (a) Email (b) Telephone (c) Face to Face (d) Letter (with the above content communicated).

268. In case the grievance is assessed to be out of the scope of the GM, a communication towards the same shall be made to the complainant, and an alternative mode of redressal shall be suggested.

Table 32: Applicable Timeframes

Action	Timeframe
Register grievance in database	Within 2 working day
Acknowledge grievance	Within 2 working days
Issue grievance feedback explaining time required for resolution and on-going progress if not yet resolved	Within 14 working days
Issue grievance feedback when mitigation established within the assigned timeframes	14 days
Approve and issue/implement redress action as per the agreement and related conditions/options.	14 days after agreeing to resolution

8.3.11 SEAH GM

269. There will be a separate reporting mechanism for SEAH cases that are discrete from standard GM and this mechanism is outlined in the SEAH Prevention and Response Plan that has been prepared for the project.

8.3.12 GM Monitoring and Implementation

270. It is important to monitor the GM to ensure that the grievances are addressed and resolved. The monitoring of the GM implementation will be undertaken on a periodic basis by the NPCU and CPCU teams at all levels and log for grievances monitored. Monitoring aspects will be elaborated in the project wide GM that will be set up and will include the following indicators:

- Number of cases requesting external review or alternative third-party arbitration
- Number of stakeholders satisfied with solution
- Number and percentage of grievances received per categories
- Number and percentage of grievances received per severity level
- Number and percentage of grievances resolved versus rejected
- Number and percentage of grievances per operation site/location
- Type of grievances received according to the categories,
- Severity of grievance
- Qualitative indicators shall be reported monthly and include root cause analysis, specific case examples and lessons learned.
- Number of grievances received, logged, acknowledged, processed, resolved and closed within a set time frame.

8.3.13 GM Reporting

271. The performance of the GM will be reviewed on a quarterly basis during the implementation period. For the purpose of review, the quarterly reports will be considered for analysis and discussion. On the basis of these reports, a Grievance Redressal Report will be prepared. Reports will be periodically shared by each agency on complaints and grievance logs with the NPCU for monitoring purposes.

272. The NPCU will maintain a documented record of stakeholder engagement and GM, including a description of the stakeholders consulted, a summary of the feedback/grievances received and a brief explanation of how the feedback was considered, or the reasons why the issue could not be resolved. For complaints related to SEAH, reporting and response protocol including identification of SEAH-sensitive channels to be integrated into the grievance mechanism, and requirements for enabling survivor-centered care.

8.3.14 National Environment Complaints Committee

273. The National Environmental Complaints Committee (NECC) was established under Section 31 of the Environmental Management and Co-ordination Act, 1999. It was formerly known as the Public Complaints Committee (PCC) but its name changed in the EMCA (Amendment) No. 5 of 2015). It is an important institution in the assessment of the condition of the environment in Kenya. It plays an important role in the facilitation of alternative dispute resolution mechanisms relating to environmental matters. The NECC makes recommendations to the Cabinet Secretary and thus contribute significantly to the formulation and development of environmental policy.

8.3.15 National Environment Tribunal

274. The NET is established under Section 125 of EMCA for the purpose of hearing appeals from administrative decisions by organs responsible for enforcement of environmental

standards. An appeal may be lodged by a project proponent upon denial of an ESIA license or by a local community upon the grant of an ESIA license to a project proponent. NEMA may also refer any matter that involves a point of law or is of unusual importance or complexity to NET for direction. The proceedings of NET are not as stringent as those in a court of law and NET shall not be bound by the rules of evidence as set out in the Evidence Act. Upon the making of an award, NET's mandate ends there as it does not have the power to enforce its awards. EMCA provides that any person aggrieved by a decision or award of NET may within 30 days appeal to the High Court.

8.3.16 Environment and Land Court

275. The Constitution of Kenya (CoK) has further provided for specific courts to deal with land and environment (Environment and Land Court) that are charged with playing a vital role in reconciling environmentally-related disputes and these courts will serve as the ultimate stop in the event of disputes or complaints that cannot be resolved through other alternative means.

8.4 World Bank's Grievance Redress

8.4.1 Grievances Redress Service

276. The Grievance Redress Service (GRS) is an avenue for individuals and communities to submit complaints directly to the World Bank if they believe that a World Bank-supported project has or is likely to have adverse effects on them, their community, or their environment. The GRS enhances the World Bank's responsiveness and accountability to project-affected communities by ensuring that grievances are promptly reviewed and addressed. Complaints must be in writing and addressed to the GRS and sent through the following methods namely: Online by accessing the online form; Email to grievance@worldbank.org; Letter or hand delivery to World Bank Headquarters in Washington D.C., United States or World Bank Kenya County Office.

8.4.2 World Bank Inspection Panel

277. The Inspection Panel is an independent complaints mechanism for people and communities who believe that they have been, or are likely to be, adversely affected by a World Bank-funded project. The Panel is an impartial fact-finding body, independent from the World Bank management and staff, reporting directly to the Board. The Inspection Panel process aims to promote accountability at the World Bank, give affected people a greater voice in activities supported by the World Bank that affect their rights and interests, and foster redress when warranted. In September 2020, the Board updated the resolution that created the Panel and added to the Panel functions. At the same time, the Board approved a resolution establishing the World Bank Accountability Mechanism (AM). The new AM began operations in early 2021 and houses the Panel to carry out compliance reviews and a new Dispute Resolution Service (DRS), which will give complainants another

way to have their concerns addressed. Contacts for registration of complaints to the IP are listed below. Tel: +1 202 458 5200; Email: ipanel@worldbank.org.

9 REFERENCES

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10 ANNEXES

ANNEX I: List of Stakeholders Consulted/Issues and Responses Public Consultation

List of Stakeholders Consulted/Issues and Responses Public Consultation on Draft Environmental and Social Management Framework (ESMF) Meeting held on 15th February 2023 at Lysak Havens Park Hotel, Machakos

S/No	Name	Cell Phone	Community represented / IP	Position	County
1	Fatuma Wario	0717314525	Boran/ IP	CDDC Treasurer	Marsabit
2	Mohamed Abdullahi	0722742979	Somali Ogaden/ IP	CDDC Secretary	Garissa
3	Adan Ibrahim Issack	0720336967	Somali – Garre/ IP	CDDC chair	Mandera
4	Shukri Hamud Abdille	0715070472	Somali – degodia/ IP	CDDC Secretary	Wajir
5	Martha Wanjiku	0729702528	Kikuyu	CDDC Secretary	Laikipia
6	Zuhura B Kololo	0714450405	Aweer (Boni)	CDDC Member	Lamu
7	Jackline Tarus	0728699569	Sengwer/ IP	CDDC Treasurer	Elgeyo Marakwet
8	Peter Lekaldero	0715739369	Samburu/ IP	CDDC Chair	Samburu
9	Ekone Lorot	0707984074	Turkana	CDDC Chair	Turkana
10	Selina A. Emeri	0729290779	Turkana	CDDC Member	Turkana
11	Wilson Oletanguie	0720763041	Ilchamus	CDDC Member	Baringo
12	Mwanadie Guyato Maunda	0715687524	Waata/IP	CDDC Treasurer	Tana River
13	Abdizack Mohamud	0724846681	Somali	CDDC Member	Tana River
14	Leila Gedi Mohamed	0726119290	Somali	CDDC Member	Tana River
15	Zamzam Mohamed	0721862947	Somali – Degodia	CDDC Treasurer	Wajir
16	Boiwo Isaiah	0708243601	Endorois/ IP	CDDC Vice Chair	Baringo
17	Abdukarim Yusuf Hussein	0720971808	Somali – murule	CDDC Chair, ERLP	Mandera
18	Benson Kenyatta Krop	0722704262	Cherangan	CDDC Chair	West Pokot
19	Richard Lewaseiyan	0723808337	N/A	CDDC Chair	Samburu
20	Zeinab Bare Ali		Somali – ogaden	CDDC Treasurer	Garissa
21	Kassim Gufu		Boran	CDDC Chair	Isiolo
22	Khalif A. Abey		Boran	Pastoral Representative	Isiolo
23	Daniel Cheruiyot	0722374350	Nandi	member	Laikipia

Focus Group I: Community members including IPs, VMGs and PWDS

Name/Person /county	Concern/ Question from Community members	Response/ Feedback	Remarks
Ekone Lorot- Turkana	At project Level: Election of community representatives	<ul style="list-style-type: none"> ● Mobilization done by project person (Chiefs, elders), ● Selection done through the elections 	Inclusion aspects are considered during mobilization but during elections there need to see inclusion actualized
Adan Ibrahim- Mandera		<ul style="list-style-type: none"> ● At community level, it is done by the Chiefs and the elect representation based on sub-clan ● Chief mobilizes ● Register groups through groups elect official 	
Fatuma Wario- Saku Sagante/jaldesa, Marsabit		<ul style="list-style-type: none"> ● Clusters are formed at location/ ward level and elect CDDC ● Ward administrators/ chiefs supervise election and Community participation 	
Peter Lekaldero- Samburu		<ul style="list-style-type: none"> ● Community mobilization by chiefs 	
Shugri Hamud- Wajir		<ul style="list-style-type: none"> ● Vulnerable members to be considered through minority representatives ● Labour are based on zones 	
Martha Wanjiku- Laikipia Olomoran		<ul style="list-style-type: none"> ● Chiefs/ward administrators are ex-officials 	
Kassim Gufu- Isiolo Chari ward		<ul style="list-style-type: none"> ● Representatives are vetted by community officials behind 	
Richard Lenaseyan- Samburu- Samburu East Wamba North	Labour: Community/ voluntary labour	<ul style="list-style-type: none"> ● Announcement by the member representative ● Community does 30 percent of the project through which is divided into days ● Community contribution (30%) Sand, hardcore, Marram, lands) 	Enhance capacities of all implementers on labour managements plans; child labour; sensitize the community on the same;

Benson Kenyatta- West Pokot		<ul style="list-style-type: none"> ● Committee contribute a lot to the management of the projects and not quantified. There is need to engage and remunerate in order to boost their morale 	<p>involvement of stakeholders within and out of the community to strengthen labour aspects.</p> <p>Pre-engagement sanctioning agreed upon with clear escalation mechanisms.</p>
Zeinab Barre- Garissa Balambala		<ul style="list-style-type: none"> ● Community take care of the disable and vulnerable among by assigning others their duties 	
Celina emer- Turkana Kapitir		<ul style="list-style-type: none"> ● Labour divided into location and equipment and machineries are purchased by the donor and distributed 	
Ekone Lorot- Turkana		<ul style="list-style-type: none"> ● In kind contribution by communities (Lands, Sands, Hardcore) 	
Shugri Hamud- Wajir	Contractual Labour	<ul style="list-style-type: none"> ● Awarded through competitive process ● Community provide security of all his properties ● Locals to be given contracts ● Communities meetings done during entry and exit to reduce mitigation Minutes circulated for members to confirm as true copy 	
Kassim Gufu- Isiolo Chari ward		<ul style="list-style-type: none"> ● Employs communities that are qualified individuals 	
Benson Kenyatta West Pokot		<ul style="list-style-type: none"> ● Employee to sign contracts between them and contractor 	
Ekone Lorot- Turkana		<ul style="list-style-type: none"> ● Communities to be involved in monitoring contractors 	
Boiwo Issaih Baringo, Daniel Cheruiyot Laikipia	Child Labour	<ul style="list-style-type: none"> ● Communities to vet labour using ID, Forms to monitor daily labour activities ● Vetting of all to minimize school going children ● Vetting by elders, chiefs and communities representatives 	
Ekone Lorot- Turkana		<ul style="list-style-type: none"> ● Pastoral areas use elders to vet before engagement 	
Zuhura Babito Kololu- LAMU Boni representative		<ul style="list-style-type: none"> ● Community vetting by elders, chief, headmen for Boni forest 	

Abdikarim Yussuf- Manderu East- Lebehia ward	Forced Labour	<ul style="list-style-type: none"> ● Girl child is involved ● Chiefs and elders are involved in awareness on early child education 	Need to enhance capacities on labour management plan to both the community and the contractors. Institutionalize sanctioning at community level with involvement of the local administrators, local elders, religious leaders; provide mechanisms for escalation
Celina Emere- Turkana Kapor		<ul style="list-style-type: none"> ● Early marriage which introduce/ leads the women and children into forced/ child labour 	
Zeinab Barre- Garissa Mbalambala		<ul style="list-style-type: none"> ● Poor families mostly drunkards abused by family, friends (GBV) 	
Jackline Tarus- Sengewer ward Elgeyo Marakwet		<ul style="list-style-type: none"> ● pastoral communities those needy family hire out children to rich families 	
Mwanadie Maunda- Tana River		<ul style="list-style-type: none"> ● Brought about by illiteracy as don't know it ● Polygamous families fall prey/ are culprits and involved in prostitution to cater for basic needs 	
Martha Wanjiku- Laikipia		<ul style="list-style-type: none"> ● Girl-child due to poverty sent to work to supplement family income 	
Boiwo Isaiah- Baringo		<ul style="list-style-type: none"> ● Poverty is driving families to hire out children 	
Daniel Cheruiyot- Laikipia		<ul style="list-style-type: none"> ● Refugees commonly forced to labour as a survive mechanism and support families 	
Fatuma Wario- Marsabit		<ul style="list-style-type: none"> ● Polygamous families are common in the communities and children are forced to support the families 	
Richard Lewaseiyan		<ul style="list-style-type: none"> ● Awareness creation should be continuous and inculcated in the capacity building forums and stakeholder engagements at community level. 	
Mohamed Abdullahi Garissa		Security at the community and contractual labour levels:	
Wilson Oletangule- Baringo	<ul style="list-style-type: none"> ● Communities will engage each other and create awareness on the happenings and informing the contractor on indecent behavior 		Enhance capacities at all levels to ensure understanding of what is
Kassim Gufu Isiolo Chari	Gender based issues		
Fatuma Wario- Marsabit			

Peter Lekadero- Samburu		<ul style="list-style-type: none"> ● Culturally using dissemination and communication pathways to create awareness. Women are sent to pass information to women and vice versa 	<p>GBV (the presentation/type of GBV).</p> <p>Ensuring the channels of reporting and redress are confidential and the closeout of the same is clear</p>
Zuhura B Kololu- Boni Lamu		<ul style="list-style-type: none"> ● Religion protect against the same largely but the girl child age is determined by elders. There is need to increase awareness on the legal definition of a child. 	
Wilson Oletangule- Baringo		<ul style="list-style-type: none"> ● Institutionalizing communities fines and legal action taken 	
Mohamed Abdullahi Garissa	Environmental issues in regards to conflict arising from the interventions: Water	<ul style="list-style-type: none"> ● Formal and informal by laws but mainly used by the direct users of the water. Need to address indirect users of the water structures; ensuring the local administration is involved in any enforcement and/or sanctions 	<p>Internalization of grievance mechanism is necessary. However the institutionalization must be interfaced with the existing community redress mechanism ensuring inclusion and representation of the community members (within the target and non-targeted populations).</p>
Ekone Lorot- Turkana		<ul style="list-style-type: none"> ● Water is being charged as per his use and agreement is done ● Chiefs and elders (Boreholes) the contractor will use and fuel and pays human capital 	
Mwanadie Maundu- Tana River		<ul style="list-style-type: none"> ● Boreholes have rules for maintenance and contractors pay. River water is free 	
Benson Kenyatta-West Pokot			
Fatuma Wario Marsabit	Lands	<ul style="list-style-type: none"> ● Land, in these counties, is largely communal land. ● Land space is given by communities for public use. There is a process for transferring land use for community/ communal land. ● In some cases, the communities buy land for putting up an investment. 	<p>However, there is need for projects to outline the processes and required documentation to access and utilize various land types for project investments; especially on communal land</p>
Zuhura Kololu- Lamu			
Abdikarim Yussuf Mandera			
Peter Lekaldero- Samburu			

Jackline Tarus- Elgeyo Marakwet			
Krop- West Pokot; Jackline Tarus Elgeyo Marakwet; Zuhura Kololu- Lamu Boni; Shukri Hamud-Wajir; and Adan Ibrahim Issak- Mandera			
Ekone Lorot Turkana			
Zeinab Barre			

Focus Group 2 for County Project Coordinators (CPCs)

S/No.	Name / Position / Institution / County	Contacts	Question/Observation/Comment	Answer/ Comment/ Remarks Provided
ESS3: efficient resource utilization Pollution management (ESMF)				
1.	Jackson Lelegwe, CPC, NARIGP Samburu County	0724905591	<p>Issue: In NARIGP, we have been focusing on small water harvesting structures. Can we focus on large structures under the proposed operation? Have adequate water volumes (Size of pans/dams) to provide sufficient water for irrigation</p> <p>Challenge:</p> <ul style="list-style-type: none"> • To obtain land documentation on community land and accessing support of NLC • Community land access • Conflict management between the crop and livestock farmers • Sufficient resources to ensure participation of all stakeholders to minimize conflict 	We are guided by the safeguards and available resources
2.	Abdinoor Musa, CPC, KCSAP Wajir	0720325010	Initially there were delays in ESIA development and clearance.	The reason we adopted Panel of Expert approach to enhance quality, efficiency and integrating expertise (Social and Environmental synergized)
ESS10: Stakeholder management				

3.	Joseph Ekalale, CPC NARIGP, Turkana County	0721321674	SACCOs are at different levels in different counties. How can the proposed program profile the existing SACCOs formed by NARIGP/KCSAP/ELRP to ensure they are viable and community resources are safeguarded	Already mapping of SACCOs is going on and more screening and capacity build initiatives will follow to improve Low grade into viable SACCOs
4.	Joseph Ekalale, CPC NARIGP, Turkana County		Consider specific context conditions in developing project interventions such as FPOs formation	The specific thematic manuals are expected to articulate processes towards formation of structures such as FPO
5.	Joseph Ekalale, CPC NARIGP, Turkana County		Value chain selection is a key aspect of the project implementation. There is need to enhance the representation of the relevant stakeholders' including in the selection of the value chains. VC Selection menu should capture all the priority VC from all the participating counties	Important to start with stakeholder identification and analysis before one starts engagements
6.	Abdinoor Musa, CPC, KCSAP Wajir	0720325010	The proposed program should take into consideration what worked and what didn't work as learnings to inform the design and implementation of the same KCSAP/NARIGP/ELRP.	Yes, it has been done
7.	Abdinoor Musa, CPC, KCSAP Wajir	0720325010	The process of approvals of multi-community investment should be improved to focus on the aspiration of the counties The National PoE should also be engaged to support the project from	We would not only use CIDP but also ensure PICD recommendations and proposals during stakeholder consultations are considered addressed in planed interventions. More efforts in tracking implementation will be put in place.

			inception to presentation of the project to CPSC and NTAC	
8.	Mohammed Aden – CPC ELRP Tana River	0722313212	Need to ensure lessons learnt and human capacity developed under NARIGP/KSCAP are utilized to better the proposed program	Well received and for upcoming operations that is the spirit has demonstrated in NAVCDP staff deployment TORs
9.	Jackson Lelegwe, CPC, NARIGP Samburu County	0724905591	Need to inform the political class of the selection criteria to identification of the project sites and ensure their views for and against are documented	Need for more Sensitization and engagement with political leadership on FSRP
10.	Jackson Lelegwe, CPC, NARIGP Samburu County	0724905591	Provision of sufficient budget to implement developed safeguards	Need for Prioritization and focus in budgeting on ESS
ESS 4: Occupation Health and Safety				
11.	Mohammed Aden – CPC ELRP Tana River	0722313212	Inadequate capacity to sensitize and enforce occupation health and safety among communities and implementers	Proposal to put in place teams of experts, train beneficiaries & implementers and seek support from relevant authorities e.g. OSH personnel in the department of labour.
ESS: Gender issues				
I.	Kirimi Stanley – CPC, KCSAP Isiolo	0727570554	There is gender inequality within the project implementing units, CDDCs, CPSC.	Affirmative action in order to effectively deal with gender issues within project implementation. Such should be stipulated in the project implementation Manual (PIM)
			Inadequate capacities in numbers, resources, advocacy to influence social change due to few experts in gender issues	The current trend is having a Gender development expert as one of the project specialist can then empanel a team to handle gender concerns
ESS ...: Indigenous people/VMGs				
I.	Muriuki kiboi – CPC- KCSAP –Laikipia	0721327038	Inadequate targeting, involvement and support of Sub Saharan Historically	Deliberately go beyond gate-keepers to identify, sensitize, plan and implement the

			Underserved Tradition Local Communities IPs	project with IPs in order to developed interventions tailored towards meeting their identified needs
Other issues raised by the County coordinators				
1.	Stephen N Mbuvi - CPC -Lamu County	Stephenmbuvi59@gmail.com 0727982866	<ul style="list-style-type: none"> • Untimely implementation of project due to inaccessible wards. • Insecurity issues, marine/road (high costs) transportation, Geographical vastness. DSA for officers in same wards. • Access to island-east island-marine transport. • More Proposals from elite wards. 	<ul style="list-style-type: none"> • Security engagement in project implementation. • Provision for a reliable marine transport and DSA for some ward officers. • Intensive community mobilization in all the wards and focus targeting of more disadvantaged VMGs to participate in project activities and benefits
2.	Peter K. Munyoki CPC-Tana River	petkats@yahoo.com 0722762674	<ul style="list-style-type: none"> • Geographical vastness of wards – CDDC members travelling long distances to attend meetings. • Insecurity issues. • Appropriateness of value chains across all the wards. • Inadequate personnel across the wards 	<ul style="list-style-type: none"> • Budget adequately for vast wards and Security. • Involve and engage of County leadership in activity planning. •
3.	Patrick Losharana- CPC Samburu	plesharana@gmail.com 0790565711	<ul style="list-style-type: none"> • Insecurity issues. • CDDC responsibility that is overwhelming and need technical capacity. • Duplications in value chain implementation with sister projects and other development partners. However, collaboration between the projects, builds volumes for the FPOs. 	<ul style="list-style-type: none"> • The FSRP security management plans anticipates such scenarios and provides guidelines • Build public relations through community meetings/engagements. • Build Capacity of CDDCs. • Important to understand what nodes of the value chain are being supported by the

			<ul style="list-style-type: none"> ● Culture influence on project implementation-i.e. FGM, Women inclusion in leadership Political good will buy in to increase project coverage. 	<ul style="list-style-type: none"> ● other partners, build synergy, utilize resources efficiently for increased volumes ● Lobby for political goodwill their engagement in implementation. ●
4.	Mohammed Dokata Livelihood-Isiolo	mohdiba@yahoo.com 0723746515	<ul style="list-style-type: none"> ● Insecurity issues affecting implementation and backstopping. ● ESS requirements delays implementation process of projects. ● Funds flow affecting implementation & Delays in transfer of funds. ● Rangeland management & restoration affected by drought and not sustainable. ● Funding to CIGs biasness ● by CDDC. 	<ul style="list-style-type: none"> ● Mapping on the security status within a county to inform on the response measures to be undertaken ● Engage security committees in the County ● Review ESS timelines & empanelling ESS unit at CPCU to build synergy, hiring services of the right lead experts to undertake Assessments and CPCU accepting only well done reports ● Fodder production as alternative. Protect plots as model farms with water supplementation ● Ensure equity in CIGs funding
5.	Bashir A. Muhumed -CPC-Garissa	Bmuhumed1963@gmail.com 0723334746	<ul style="list-style-type: none"> ● ESS process is long. ● .GM in Open tender investment and some community have inadequate capacity to supply hence grievances. ● County vastness and poor road network affecting the implementation. ● Insecurity issues on investment-vandalism. ● Range management challenges especially on communal land. 	<ul style="list-style-type: none"> ● Build Capacity of community on the requirement in ESS. ● Robust GM will be put in place ● Need for coordinated efforts on security issues ● Hybrid extension system with farmer led per every group to increase coverage ● Engagement and consultations with elders and communities during site development, use of Community land access resolution consent tool among other measures will be adopted by FSRP

6.	Lawrence Makau – CPC Baringo	makausammy@gmail.com 0724774825	<ul style="list-style-type: none"> ● Security management Plan- to look into unforeseen security issues. ● Coverage of sister projects in wards especially on implementation of different value chains and funding levels. ● Harmonization of SP & technical staff ● Funding of MC, SP different for sister project. ● Child labour while employing coping mechanisms to survive especially children burning charcoal. ● IPMF 	Proposals to be considered when developing project manuals and EFS instruments
7.	Ben Kibor-CPC Elgeyo Marakwet	bkamelly@gmail.com 0725622898	<ul style="list-style-type: none"> ● Need for social experts ● Farmer led development ● Delays in development of BoQs for irrigation infrastructure. ● Insecurity issues along the borders affecting implementation. ● Labour management Plan. ● Need for clarity in ESMP implementation & funding 	<ul style="list-style-type: none"> ● Propose CESSCO position be split into two: environment and, social and gender inclusion. ● Engineer in charge of irrigation and infrastructure/ BoQ development. ● Contingency budget to take care of security issues by re-organizing the budget. ● Involve labour and social services departments in implementation. ● Budget for EMP within the CPCU or Contractor should be clear on it.
8.	Peter Syengo-M&E- Mandera	p.syengo@yahoo.com 0725514816	<ul style="list-style-type: none"> ● Advocacy on ESS lacking. ● CDDC lack capacity on ESS./ESMP ● Gender issues. ● Digitization of ESS platforms unavailable 	<ul style="list-style-type: none"> ● Enhance advocacy and be packaged in local language. ● Involve opinion leaders on ESS implementation. ● Contractor require sensitization on ESS

			<ul style="list-style-type: none"> • Contractors capacity on ESS inadequate • Inadequate SP representation by Grassroot Partners • Disruptive agricultural technologies (DAT) not in the county 	<ul style="list-style-type: none"> • ESS/Gender champion especially a lady to allow female beneficiaries raise their issues. • Consider use of technical officers/public extension to support ESS • Create ESS Platform like WhatsApp groups. • Introduce DAT services in the Count
9.	Philip Ting'aa, CPC West Pokot	werianka@yahoo.com 0729425244	<ul style="list-style-type: none"> • Some of farmers along the water pipelines not irrigating farms because of engineer advice and sometimes they interfere with water conveyance. • Land issues-individual ownership hence passage of pipeline through peoples' farms. 	<ul style="list-style-type: none"> • ESS issues on contractor be enforced through supervision. • Engage community on enforcing the ESS on contractors
10.	Gabriel Okata M&E Turkana	go.kata@yahoo.com 0720647264	<ul style="list-style-type: none"> • Inflation affecting supplies of input packets to CIGs in-terms of quality and quantity. Affected by earlier approval of proposals before funds disbursement hence a grievance issue. • CIGs linkages to FPO limited to 4 FPO when more than 4 value chains are being promoted. 	<ul style="list-style-type: none"> • Engagement of CIGs/CDDCs on variation of prices.

11.	James Singi- Component I lead, NPCU	KCSAP	<ul style="list-style-type: none"> ● Limited extension provision 	<ul style="list-style-type: none"> ● Ensure conformity with the environmental issues. ● We are borrowing a lot from ending projects and the gaps that were identified. Defined officers for different value chains e.g ESS & SS& Genders. ● Hybrid extension system with elite farmers on board. ● CPC to be mandatory signatories to avoid delays in project implementation. ● Give preference to new wards coming on board in terms of funding levels. ● Consent on land utilization. ● Reach out on Counties individually on new project not to raise expectations
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Focus Group 3: Summary of Concerns/Issues from the CESSCOs

Name, contact, County	Concerns / question / observation	Answers provided
Siyad Mohamed – Mandera , ELRP, 0715381986	Security on areas that are on high alert such as sub-counties bordering Somalia in Mandera, Garisa, Wajir, Lamu and Tana River – especially for service providers in project activities.	While procuring services priority is given to the locals. Mapping the areas with security issues.
Ruto Christopher – Elgeyo Marakwet – ELRP, 0727489471	Equip the project teams with knowledge on how to resolve conflicts that are likely to escalate into security threats	Training and capacity building on conflict resolution
Mramba Hamisi – KCSAP , LAMU , 0727366624	Some Wards are risky to accessed by road due to security issues such as landmines, cattle rustling hence service delivery and implementation and monitoring of project activities is affected	Avail alternative means of transport such as security vehicles choppers. Have a multisectoral stakeholders forum to support in securing project activities / locations, providing intelligence and warnings
Mramba Hamisi – KCSAP , LAMU , 0727366624	How do we deal with safety related issues for islands within Lamu due to oceanic tides	Use of life jackets and other safety equipment. Use information from institution such as KMD, KMA and local community to plan travel and ensure travelling during low tide times.
Ramadhan Goricha – Isiolo ELRP, 0700254927	How do we deal with conflict related to access of limited resources such water and pastures during dry season	Map the areas of common resources, Establish and support community peace committees, Establish security to mapped areas, Establish the common causes of conflict that can be mitigated, Capacity building and training of local community on need for peace, Establish more common community resource areas
	Livestock theft and or rustling	Collaboration with the established security mechanisms
Justine Naiku – Samburu – ELRP, 014873008	How do we deal with issues of land ownership that affect support of projects within counties where land ownership is	Establish what documents are required to qualify a project for support. Involve the county government, NLC and other stakeholders such as the community, Capacity building on land adjudication

Name, contact, County	Concerns / question / observation	Answers provided
	communal especially in Samburu, Baringo, and Marsabit	
Justine Naeku – Samburu – ELRP, 014873008	How do we deal with categorizing which groups within a community are IPs	Establish a framework of defining which specific groups are IPs in counties that are generally referred to as IP
Ramadhan Goricha – Isiolo ELRP, 0700254927	How do we deal with issues of human wildlife conflict	Fencing the proposed project location, Engage KWS to resolve the issue Creating buffer zones, Avoid wildlife corridors, Adopt projects that can be integrated with wildlife
Lincoln Njiru – Laikipia – KCSAP, 0722745138	How do we deal with misuse of resources within the CDDCs, quality assurance issues e.t.c	Have the CDDC accounts include a government officer as a mandatory signatory to ensure quality assurance and pricing, Capacity building for CDDCs such as trainings, office space and furniture in their meeting area, Establish a CDDC secretariat Incorporate local leadership in procurement of materials,
Lincoln Njiru – Laikipia – KCSAP, 0722745138	How do we expedite flow of funds from the treasury, CRF, SPA to the project account	Establish timelines within which money moves from one account to another,
Lincoln Njiru – Laikipia – KCSAP, 0722745138	Officers in CPCU are exposed to political interference	Officer under CPCU need to be protected from county political interference
Jacob Mutua – Turkana – NARIGP, 0729451681	How to ensure Supervision of projects or monitoring implementation of contractual projects	Engaging the NPCU and CPCU in monitoring of such projects
Ruto Christopher – Elgeyo Marakwet – ELRP, 0727489471	The SAIC committees are not able to handle grievances and are not adequately facilitated	Establish autonomy from the CDDCs, Establish a budget to facilitate their operations, The budget for SAIC to be domiciled in the CPCU
Ramadhan Goricha – Isiolo ELRP, 0700254927	How do we deal with vastness of the areas being covered by the SAIC and CDDCs	Establish a system of Facilitating the movement of SAIC and CDDCs within the wards

Name, contact, County	Concerns / question / observation	Answers provided
Ruto Christopher – Elgeyo Marakwet – ELRP, 0727489471	How do fund the ESS implementation in the projects such as ESMP	Develop the ESS tools and factor them in the budget before implementing the projects, ESS budgets should be harmonized and prioritized. This will require sensitization on the same across board. Capacity building about ESMP implementation to the groups
Lincoln Njiru – Laikipia – KCSAP, 0722745138	How do we ensure farmers benefit from carbon credit	Create awareness and capacity building on carbon credit trading and issues related to GHG sequestration, Track project contribution to GHGs sequestration
Jacob Mutua – Turkana – NARIG, 0729451681	How do we enforce workers safety for employees working under the contractors	Ensure all the employees used by contractors sign a contractual agreement and a copy is shared with CPCU, Training and capacity building for the employees and contractors before onset of activities,
Mramba Hamisi – KCSAP , LAMU, 0727366624	In case of accidents and incidents how is compensation done	The contract documents for the employees to have a clause of what to be done in case of incidence
Jacob Mutua – Turkana – NARIG, 0729451681	Standardizing payment rates workers working under contractors	Share the payment agreements between the contractors and their employees for enforcement
Jacob Mutua – Turkana – NARIG, 0729451681	How do we ensure the communities are aware of labor requirements for the funded projects	Sensitization of the involved communities on what labour requirements are supposed to be met
John Kiprop – Baringo - ELRP	Ensuring that the CDDCs procure registered crop protection products for farmers	Training the CDDCs on how to establish registration status of products, Engaging regulatory bodies such as PCPB, KEPHIS, Share the list of registered crop protection products with the CPCUs, farmers, CDDCs
William Mbotela – CESCO Turkana 0727848942	How do we deal with cases where the political or social-cultural pressure force the victims not to report sexual harassment	Awareness creation and training, Institutionalizing the information and establishing reporting desks

Name, contact, County	Concerns / question / observation	Answers provided
William Mbotela – CESCO Turkana 0727848942	How do you deal with areas where GBV reporting system is led by one gender	Ensure both genders are represented in the reporting systems, Awareness creation and training, Institutionalizing the information and reporting desks, Mainstreaming the reporting system to as low as the ward or chief camps

Annex V: List of participants

S/NO	NAME	ORGANIZATION	DESIGNATION	TELEPHONE	EMAIL ADDRESS
	Mohamed Adan	ELRP	CPC	0722313212	mamsalatsy@gmail.com
	Kinuthia Moses	KCSAP	NPOE	0726785601	Kinuthiamk2009@gmail.com
	Jackson Lelegwe	NARIGP	CPC	0724905591	jlegwe@gmail.com
	Muriuki Kiboi	KCSAP	CPC	0721327038	muriukikiboim@yahoo.com
	Abdinoor I. Musa	KCSAP-Wajir	CPC	0720325010	Aimusa2006@gmail.com
	Bosu Godana	ELRP	CESSCO	0706610502	bgabduba@gmail.com
	Muthoni Muta	KCSAP	SS & GML	0722 881040	gilbertmuthee@yahoo.com
	Siyad Mohamed	ELRP	CESSCO	0715381986	siyadsudi@gmail.com
	John Kiprop	KCSAP	CPC	0722283787	kipjkiprop@gmail.com
	Fatuma Wario	KCSAP	CDDC Marsabit	0717314525	
	Mwanadie Guyato Maunda	KCSAP	CDDC	0715687524	
	Zamzam Mohamed	KCSAP	CDDC Wajir	0721862947	Zamvu2020@gmail.com
	George Wasonga	KCSAPT/R	CESSCO	0725760206	gwogola@yahoo.com
	Wilson Oletangule	KCSAP	CDDC	0720763041	wilson@gmail.com
	Bawo Isaiah	KCSAP	CDDC	0708243601	bawokipngok
	Carren Nasiaki K	KCSAP	CESSCO	0726761561	cmasiaki@gmail.com
	Shukri Hamud Abdille	ELRP Wajir	CDDC Secretary	0715070472	gedibasir@gmail.com
	Abdikarim Yussuf Hussein	ELRP Mandera	CDDC Chairman	0720971808	abdikarimyhusein
	Mohamed Sugow	KCSAP Garissa	CESSCO	0724290960	sugowmohamed@gmail.com
	Ahmed Salat	ELRP Garissa	CESSCO	0721117100	Ahmed.salat01@gmail.com
	Mohamed Abdullahi	Garissa	CDDC Secretary Sankuri Ward	0722742979	
	Susan Moywaywa	MOALD-SDCD	Agric officer	0726066025	moywaywas@gmail.com
	Catherine Kinyajui	ELRP	Socio Econ	0722249669	ckwairimu@gmail.com

S/NO	NAME	ORGANIZATION	DESIGNATION	TELEPHONE	EMAIL ADDRESS
	Ramadhan Golicha	ELRP	CESSCO	0700254927	Ramadhan.wako11@gmail.com
	Wato Denge	KCSAP	CPC	0727962791	watodenge@gmail.com
	Benson K. Krop	KCSAP West Pokot	CDDC Chair Proc.	0722704262	
	Philip Ting'aa	KCSAP West Pokot	CPC	0729425244	werianka@yahoo.com
	Mohamed Dokata	ELRP Isiolo	Livelihoods for CPC	0723746515	mohdiba@yahoo.com
	Peter Lekaldero	NARIGP	CDDC Chair	0715739369	
	Kassim Gofu	ELRP	CDDC Chairman	0724283346	
	Peter Syengo	KCSAP Mandera	M&E	0725514816	p.syeng@yahoo.com
	Muhumed Hassan	KCSAP Wajir	CESSCO	0729733056	moxumedali@gmail.com
	Zeinab Bare Ali	KCSAP GARISSA	CDDC Treasurer	0712106152	
	Bashir A. Muhumed	KCSAP	CPC	9723334746	Bmuhumed1963@gmail.com
	Ento Juma Moru	KCSAP	CESSCO	0700250266	Entojuma1988@gmail.com
	Lekartiwa Simon	NARIGP	CESSCO	0729493420	lekartiwaslitas@gmail.com
	Jacob Mutua	NARIGP	CESSCO	0729451681	Mwikyajacob87@gmail.com
	Ekone Lorot	NARIGP	Chairman CDDC	0707984074	
	Martha Wanjiku T	ELRP	CDDC- Secretary Procurement	0729702528	Marthawathuta2@gmail.com
	Zuhura B. Kololo	KCSAP	CDDC	0714450408	
	Mramba khamis	KCSAP Lamu	CESSCO	0727366624	Mrambakhamis@gmail.com
	Julius King'ori	KCSAP	CESSCO	0725281939	kingsjulius@gmail.com
	Issack Abdi Ali	KCSAP	CESSCO	0720433200	Issackali2011@gmail.com
	Khalif A.	KCSAP	CEO	0723908410	khalifabbey@gmail.com
	Stephen Mbuvi	KCSAP LAMU	CPC	0727982866	Stephenmbuvi59@gmail.com
	Adaan Isaack	KCSAP	Chairperson Mandera	0720336967	adaaack@gmail.comniis
	Lincoln Njiru	KCSAP	CASO	0722745138	Lincolnnjiru99@gmail.com
	Belphine Nyanja	KCSAP	M\$E	0727419951	belphinen@yahoo.com
	Eliphus Muriithi	KCSAP	NPOE	0720780895	muriithimutuma@gmail.com

S/NO	NAME	ORGANIZATION	DESIGNATION	TELEPHONE	EMAIL ADDRESS
	Peter Munyoki	KCSAP	CPC		petkaf@gmail.com
	Catherine Kinyanjui	ELRP	NPCU	0722249669	
	Boniface Mutua	ELRP	M&E	0722456082	kboniface@gmail.com
	Julius Mutua	ELRP	NESS	0721843979	mutuavauch@gmail.com
	Johnson Ndolo	ELRP	SSS	0722670604	ndolojohnson@gmail.com
	Mohamed Aden	ELRP	CPC	0722313212	
	Kinuthia Moses	KCSAP	NPOE	0726785601	Kinuthiamk2009@gmail.com
	Jackson Lelegwe	NARIGP	CPC	0724905591	jlegwe@gmail.com
	Muriuki Kiboi	KCSAP	CPC	0721327038	muriukikiboim@yahoo.com
	Abdinoor Musa	KCSAP	CPC	0720325010	Aimusa2006@gmail.com
	Bozu Godana	ELRP	CESSCO	0706610502	bgabduba@gmail.com
	Gilbert Muthee	KCSAP	NESS	0722345651	gilbertmuthee@yahoo.com
	Siyad Mohamed	ELRP	CESSCO	0715381986	siyadsudi@gmail.com
	Ben Kibor	EMC	CPC	0725622898	bkamelly@gmail.com
	Lawrence Sammy	ELRP	CPC	0724774825	makausammy@gmail.com
	Gabriel Okata	ELRP	CPC	0720647264	garkata@yahoo.com
	Patrick Lesharna	ELP	CPC	0790865711	plesharna@gmail.com
	Mohamed Dokata	ELRP	CPC	0723746515	mohdiba@yahoo.com
	Bashir Muhumed	KCSAP	CPC	0723334746	Bmuhumed1963@gmail.com
	John Nginyangi	KCSAP	NPC	0710512419	jmnginyangi@gmail.com
	Esther Wambua	ELRP	NPC	0720825332	wambuaemm@yahoo.com
	Issa Mohammed	KCSAP	CESSCO	0742028634	bonussa@gmail.com
	Christopher Ruto	ELRP	CESSCO	0727489471	Rutochris2000@yahoo.com
	James Singi	KCSAP	Component I	0725941643	Singi1969@yahoo.com
	Lydia K	KCSAP	CESSCO	0728662496	Lydia.chepkoech@yahoo.com

ANNEX 2: Framework Integrated Pest Management Plan(IPMP)

Prepared as a separate annex, refer to FSRP IPMP

ANNEX 3: Security Management Plan(SMP)

Prepared as a separate annex refer to FSRP SMP

ANNEX 4: Labour Management Procedures(LMP)

Prepared as a separate annex refer to FSRP LMP

ANNEX 5: Environmental and Social Screening Checklist by Beneficiary Communities (SACCO Projects, FPO Investments and Sub Projects)

Section A: Background Information

Name of County.....	
Name of CPCU/Environmental and Social Safeguard Compliance Officer	
<p>LOCATION.....</p> <p>Name of CIG/VMG</p> <p>Postal Address:</p> <p>Contact Person.....Cell phone:</p> <p>Sub -project name.....</p>	
Estimated cost (Kshs.).....	
<p>Approximate size of land area available for the sub -project.....</p> <p>Objectives of the Sub - project</p> <p>.....</p>	
<p>Activities/enterprises undertaken</p> <p>.....</p>	
<p>How was the sub -project chosen?</p> <p>Expected sub - project duration:</p>	

Section B: Environmental Issues

Will the Subproject:	Yes	No	Remarks
Create a risk of increased soil erosion?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, elaborate
Create a risk of increased deforestation?	<input type="checkbox"/>	<input type="checkbox"/>	
Create a risk of increasing any other soil degradation?	<input type="checkbox"/>	<input type="checkbox"/>	
Affect soil salinity and alkalinity?	<input type="checkbox"/>	<input type="checkbox"/>	
Divert the water resource from its natural course/location?	<input type="checkbox"/>	<input type="checkbox"/>	
Cause pollution of aquatic ecosystems by sedimentation and agro-chemicals, oil spillage, effluents, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	
Introduce exotic plants or animals?	<input type="checkbox"/>	<input type="checkbox"/>	
Involve drainage of wetlands or other permanently flooded areas?	<input type="checkbox"/>	<input type="checkbox"/>	
Cause poor water drainage and increase the risk of water-related diseases such as malaria?	<input type="checkbox"/>	<input type="checkbox"/>	
Reduce the quantity of water for the downstream users?	<input type="checkbox"/>	<input type="checkbox"/>	
Result in the lowering of groundwater level or depletion of groundwater?	<input type="checkbox"/>	<input type="checkbox"/>	
Create waste that could adversely affect local soils, vegetation, rivers and streams or groundwater?	<input type="checkbox"/>	<input type="checkbox"/>	
Reduce various types of livestock production?	<input type="checkbox"/>	<input type="checkbox"/>	
Be on monoculture cropping?	<input type="checkbox"/>	<input type="checkbox"/>	
Affect any watershed?	<input type="checkbox"/>	<input type="checkbox"/>	
Focus on Biomass/Bio-fuel energy generation?	<input type="checkbox"/>	<input type="checkbox"/>	

If the answers to any of the above is 'yes', please include an ESMP with Subproject application.

Section C: Socio-economic Issues

Will the subproject:	Yes	No	Remarks
Have challenges for women farmers to benefit			If yes, elaborate
Target vulnerable community members such as physically challenged, LGBTQ, Child headed household etc..?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, elaborate
Interfere with the normal health and safety of the worker/employee?	<input type="checkbox"/>	<input type="checkbox"/>	
Reduce the employment opportunities for the surrounding communities?	<input type="checkbox"/>	<input type="checkbox"/>	
Reduce settlement (no further area allocated to settlements)?	<input type="checkbox"/>	<input type="checkbox"/>	
Reduce income for the local communities?	<input type="checkbox"/>	<input type="checkbox"/>	
Increase insecurity due to introduction of the project?	<input type="checkbox"/>	<input type="checkbox"/>	
Increase exposure of the community to HIV/AIDS?	<input type="checkbox"/>	<input type="checkbox"/>	
Induce conflict?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, elaborate
Have machinery and/or equipment installed for value addition?	<input type="checkbox"/>	<input type="checkbox"/>	
Introduce new practices and habits?	<input type="checkbox"/>	<input type="checkbox"/>	
Lead to child delinquency (school drop-outs, child abuse, child labour, etc.?)	<input type="checkbox"/>	<input type="checkbox"/>	If yes, how
Lead to gender disparity?	<input type="checkbox"/>	<input type="checkbox"/>	If yes elaborate how

Lead to poor diets?	<input type="checkbox"/>	<input type="checkbox"/>	
Lead to social evils (drug abuse, excessive alcohol consumption, crime, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	If yes elaborate
Will engage community labour	<input type="checkbox"/>	<input type="checkbox"/>	If yes, Community labor engagement agreement required

Section D: Natural Habitats

Will the Subproject:			Remarks
Be located within or near environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, elaborate
Adversely affect environmentally sensitive areas or critical habitats – wetlands, woodlots, natural forests, rivers, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	
Affect the indigenous biodiversity (Flora and fauna)?	<input type="checkbox"/>	<input type="checkbox"/>	
Cause any loss or degradation of any natural habitats, either directly (through project works) or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	
Affect the aesthetic quality of the landscape?	<input type="checkbox"/>	<input type="checkbox"/>	
Reduce people’s access to the pasture, water, public services or other resources that they depend on?	<input type="checkbox"/>	<input type="checkbox"/>	
Increase human-wildlife conflicts?	<input type="checkbox"/>	<input type="checkbox"/>	
Use irrigation system in its implementation?	<input type="checkbox"/>	<input type="checkbox"/>	

If the answers to any of the above is ‘yes’, please include an ESMP with Subproject application.

Section E: Pesticides and Agricultural Chemicals

Will the subproject:			Remarks
Involve the use of pesticides or other agricultural chemicals, or increase existing use?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, elaborate
Cause contamination of watercourses by chemicals and pesticides?	<input type="checkbox"/>	<input type="checkbox"/>	
Cause contamination of soil by agrochemicals and pesticides?	<input type="checkbox"/>	<input type="checkbox"/>	
Experience effluent and/or emissions discharge?	<input type="checkbox"/>	<input type="checkbox"/>	
Involve annual inspections of the producers and unannounced inspections for Export produce?	<input type="checkbox"/>	<input type="checkbox"/>	
Require scheduled chemical applications?	<input type="checkbox"/>	<input type="checkbox"/>	
Require chemical application even to areas distant away from the focus?	<input type="checkbox"/>	<input type="checkbox"/>	
Require chemical application to be done by vulnerable group (pregnant mothers, chemically allergic persons, elderly, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	

If the answer to the above is ‘yes’, please consult the Framework IPMP that has been prepared for the project.

Section F: Indigenous Peoples/VMGs as per ESS7

Are there:			Remarks
IVMGs living within the boundaries of, or near the project?	<input type="checkbox"/>	<input type="checkbox"/>	Name of the VMG community
Members of VMGs in the area who could benefit from the project?	<input type="checkbox"/>	<input type="checkbox"/>	

IVMGs livelihoods to be affected by the subproject?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, How
Unique/specific challenges for VMGs to benefit from the project	<input type="checkbox"/>	<input type="checkbox"/>	Explain
VMGs in minority in the community	<input type="checkbox"/>	<input type="checkbox"/>	If yes, Explain/name of minority VMG
Does VMG require to donate land to benefit from the project			If yes, follow Free, prior and informed consent procedure.

If the answer to any of the above is 'yes', please consult the VMGF that has been prepared for the project.

Section G: Land Acquisition and Access to Resources

Will the subproject:	Yes	No	Remarks
Require that land (public or private) be acquired (temporarily or permanently) for its development?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, elaborate the tenure type
Require that community land be acquired (temporarily or permanently) for its development?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, elaborate the registration status and community claims. Community land agreement required following principles of FPIC.
Require more than 10 percent of the affected private land parcel	<input type="checkbox"/>	<input type="checkbox"/>	If yes, exclude from the project proposal
Use land that is currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing locations, forests)	<input type="checkbox"/>	<input type="checkbox"/>	If yes, Elaborate the current use.
Complete land documents are not available for the sub- project investment?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, what process is needed?
Does the land proposed have encumbrances?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, elaborate the encumbrance
Physically displace individuals, families or businesses?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, exclude from the project proposal
Cause loss of income for more than 30 days	<input type="checkbox"/>	<input type="checkbox"/>	If yes, how many. Exclude from the project proposal
Result in temporary or permanent loss of crops, fruit trees/fencing and pasture land/ loss of income from business activity?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, elaborate and prepare IRP
Adversely affect small communal cultural property such as funeral and burial sites, or sacred groves?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, avoid or exclude from project proposal
Result in involuntary restriction of access by people to legally designated parks and protected areas?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, exclude
Be on monoculture cropping?	<input type="checkbox"/>	<input type="checkbox"/>	

If the answer to any of the above is 'yes', please consult the mitigation measures in the ESF.

Section H: Proposed action

(i) Summarize the above:	(ii) Guidance
<input type="checkbox"/> All the above answers are 'No' <input type="checkbox"/> There is at least one 'Yes'	<ul style="list-style-type: none"> ● If all the above answers are 'No', there is no need for further action; ● If there is at least one 'Yes', please describe your recommended course of action (see below).

(iii) Recommended Course of Action

If there is at least one 'Yes', which course of action do you recommend?

- CPCU, Social services officer, labour Officer, Children Officer and CDE will provide detailed guidance on mitigation measures as outlined in the ESF; and
- Specific advice is required from CDE¹⁰, Lead Scientist and CPCUs regarding Sub -project specific EA(s) and also in the following area(s)
- All Subproject applications/proposals MUST include a completed ESF checklist. The FSRP -CPCU will review the subproject applications/proposals and the CESCO will review and forward to CDE' for further reviews and recommendation. The input from the NLC, Social Services office, Children's office, labour office and the CSSCO will be required before the documents are presented to the CPSC.
- The proposals will then be submitted to CPSC for clearance for implementation by communities in the proposed Subprojects. The projects that require CPRs will be forwarded to NPCU for ESS clearance, - and finally to NEMA for clearance certificate.

Expert Advice

- The Government of Kenya through the Department of Monuments and Sites of the National Museums of Kenya can assist in identifying and, mapping of monuments and archaeological sites;
- Expert guidance will also be provided by the land registrar on all issues related to land tenure, The children department on all issues on children, especially child labour, plus department of social services on IPs and vulnerable groups in the community, and
- Subproject specific EAs, if recommended, must be carried out by experts registered with NEMA. During the process of conducting an EA the proponent shall seek views of persons who may be affected by the Subproject. The ESS10 requires consultation of Subproject affected groups and disclosure of EA's conclusions. In seeking views of the public the proponent shall avail the draft EA report at a public place accessible to project-affected groups and local NGOs/CSO/SAIC/CDDCs. Once all the views/concerns from the various stakeholders are incorporated the EA report is then submitted to NPCU for further review and revision to acceptable quality before it is reverted to CPCU for onward transmission to NEMA for approval.

¹⁰County Director of Environment and the County Technical Team

Completed by:

Name:

Position / Community:

Date:

Field Appraisal Officer (CDE).....

Signature:

Date.....

Note:

Project category	Characteristics
High	Full and extensive ESIA needed- irreversible environmental impacts; impacts not easy to pick or isolate and mitigation cost expensive; ESMP design not easily done; Must have the ESIA done and future annual Environmental Audits instituted
Medium	Site specific environmental impacts envisaged; mitigation measures easy to pick, not costly and ESMP design readily done; need an ESIA and future (Environmental Audits)
Low	Have minimal or occasionally NO adverse environmental impacts; exempted from further environmental processes save environmental audits
Land	Land tenure documentation needed and land resolution and consent Form needed with project affected person/community
Loss of income and assets	Income restoration plan needed
Presence of VMG/IP	Additional actions needed
Risk of Child labor/SEAH	Additional actions needed

ANNEX 6: Sample ESIA Terms of Reference

Indicative outline of an ESIA

Where an environmental and social impact assessment is prepared as part of the environmental and social assessment, it will include the following:

- (a) Executive summary • Concisely discusses significant findings and recommended actions.

- (b) Legal and institutional framework • Analyzes the legal and institutional framework for the project, within which the environmental and social assessment is carried out, including the issues set out in ESS1, paragraph 26.46 • Compares the Borrower's existing environmental and social framework and the ESSs and identifies the gaps between them. • Identifies and assesses the environmental and social requirements of any co-financiers.

- (c) Project description • Concisely describes the proposed project and its geographic, environmental, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), as well as the project's primary suppliers. • Through consideration of the details of the project, indicates the need for any plan to meet the requirements of ESS1 through 10. • Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts.

- (d) Baseline data • Sets out in detail the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures. This should include a discussion of the accuracy, reliability, and sources of the data, as well as information about dates surrounding project identification, planning, and implementation. • Identifies and estimates the extent and quality of available data, key data gaps, and uncertain ties associated with predictions. • Based on current information, assesses the scope of the area to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences. • Considers current and proposed development activities within the project area but not directly connected to the project.

- (e) Environmental and social risks and impacts • Considers all relevant environmental and social risks and impacts of the project. This will include the environmental and social risks and impacts specifically identified in ESSs2–8, and any other environmental and social risks and impacts arising as a consequence of the specific nature and context of the project, including the risks and impacts identified in ESS1, paragraph 28.

- (f) Mitigation measures • Identifies mitigation measures and significant residual negative impacts that cannot be mitigated and, to the extent possible, assess the acceptability of those residual negative impacts. • Identifies differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable. Assesses the feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of proposed mitigation

measures, and their suitability under local conditions; the institutional, training, and monitoring requirements for the proposed mitigation measures. • Specifies issues that do not require further attention, providing the basis for this determination.

(g) Analysis of alternatives • Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the "without project" situation—in terms of their potential environmental and social impacts; • Assesses the alternatives' feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; the institutional, training, and monitoring requirements for the alternative mitigation measures. • For each of the alternatives, quantifies the environmental and social impacts to the extent possible, and attaches economic values where feasible. (h) Design measures • Sets out the basis for selecting the particular project design proposed and specifies the applicable ESHGs, or if the ESHGs are determined to be inapplicable, justifies recommended emission levels and approaches to pollution prevention and abatement that are consistent with GIIP.

(h) Design measures • Sets out the basis for selecting the particular project design proposed and specifies the applicable ESHGs, or if the ESHGs are determined to be inapplicable, justifies recommended emission levels and approaches to pollution prevention and abatement that are consistent with GIIP.

(i) Key measures and actions for the Environmental and Social Commitment Plan (ESCP) • Summarizes key measures and actions and the time frame required for the project to meet the requirements of the ESSs. This will be used in developing the Environmental and Social Commitment Plan (ESCP).

(j) Appendices • List of the individuals or organizations that prepared or contributed to the environmental and social assessment. • References—set out the written materials, both published and unpublished, that have been used. • Record of meetings, consultations, and surveys with stakeholders, including those with affected people and other interested parties. The record specifies the means of such stakeholder engagement that were used to obtain the views of affected people and other interested parties. • Tables presenting the relevant data referred to or summarized in the main text. • List of associated reports or plans

ANNEX 7: Sample Environmental and Social Audit Terms of Reference

Indicative outline of Environmental and Social Audit

The aim of the Environmental and social audit is to identify significant environmental and social issues in the existing project or activities, and assess their current status, specifically in terms of meeting the requirements of the ESSs.

(a) Executive summary • Concisely discusses significant findings and sets out recommended measures and actions and time frames.

(b) Legal and institutional framework • Analyzes the legal and institutional framework for the existing project or activities, including the issues set out in ESS1, paragraph 26, and (where relevant) any applicable environmental and social requirements of existing financiers.

(c) Project description • Concisely describes the existing project or activities, and the geographic, environmental, social, and temporal context and any Associated Facilities. • Identifies the existence of any plans already developed to address specific environmental and social risks and impacts (e.g., land acquisition or resettlement plan, cultural heritage plan, biodiversity plan) • Includes a map of sufficient detail, showing the site of the existing project or activities and the proposed site for the proposed project.

(d) Environmental and social Issues associated with the existing project or activities • The review will consider the key risks and impacts relating to the existing project or activities. This will cover the risks and impacts identified in ESSs I–10, as relevant to the existing project or activities. The audit will also review issues not covered by the ESSs, to the extent that they represent key risks and impacts in the circumstances of the project.

(e) Environmental and social analysis • The audit will also assess (i) the potential impacts of the proposed project considering the findings of the audit with regard to the existing project or activities); and (ii) the ability of the proposed project to meet the requirements of the ESSs.

(f) Proposed environmental and social measures • Based on the findings of the audit, this section will set out the suggested measures to address such findings. These measures will be included in the Environmental and Social Commitment Plan (ESCP) for the proposed Project. Measures typically covered under this section include the following: • Specific actions required to meet the requirements of the ESSs; • Corrective measures and actions to mitigate potentially significant environmental and/or social risks and impacts associated with the existing project or activities; and • Measures to avoid or mitigate any potential adverse impacts

ANNEX 8: Sample Summary Project Report (SPR) Outline

Cover Page	o
Certification	o
Acknowledgement	o
Table of Content	o
Abbreviations and acronyms	o
Executive Summary	o To be precise and in continuous pros
Chapter 1: Introduction	o Background of the Project, Project Justification, Justification of SPR, Objectives of SPR, SPR approach and methodology and Organization of Report
Chapter 2: The nature of the project	o Project design o Project activities o Project cost
Chapter 3: The location of the project including	o Proof of land ownership, where applicable o Any environmentally sensitive area to be affected o Availability of supportive environmental management infrastructure o Conformity to land use plan or zonation plan
Chapter 4: Public participation and stakeholders' consultation	o
Chapter 5: Potential environmental and social impacts of the project and the mitigation measures to be taken during and after implementation of the project	o Positive social and environmental impacts o Negative environmental impacts and mitigation measure o Negative social impacts and mitigation measure N/B To be organized in the project phase pre construction, construction , operation and decommissioning (if applicable)
Chapter 6: Environmental and Social management and monitoring plan (ESMMP)	o To be organized in the project phase pre construction, construction , operation and decommissioning (if applicable)
Chapter 7: Conclusion and Recommendations	o Should be precise , specific and clear

References	o
Annexes	<p>such as:</p> <ul style="list-style-type: none"> • Project layouts; • Minutes of stakeholder consultations • Questionnaires; • Bill of Quantities • Hydrogeological Assessment Report • Acquired permits and/or applications

ANNEX 9: Sample Comprehensive Project Report (CPR) Outline

Cover Page	o
Certification	o
Acknowledgement	o
Table of Content	o
Abbreviations and acronyms	o
Executive Summery	o to be precise and in continuous pros
Chapter 1: Introduction	o Background of the Project, Project Justification, Justification of CPR, Objectives of CPR, CPR approach and methodology, Organization of Report
Chapter 2: Project Description	o Project design; the activities that shall be undertaken during the project construction, operation and decommissioning phases ; Project cost
Chapter 3: The location of the project including	o Proof of land ownership; The Global Positioning System coordinates; and the physical area that may be affected by the project's activities
Chapter 4: Baseline Information	o Description of the physical and natural environment, socio economic aspects,
Chapter 5: Policy, Legislative and regulatory framework	o Description of the international, national and county environmental legislative and regulatory frameworks on the environment and socio-economic matters
Chapter 6: Public participation and stakeholders consultation	o
Chapter 7: Analysis of Project Alternatives	o
Chapter 8: Potential environmental and social impacts of the project and the mitigation measures to be taken during and after implementation of the project	o Positive social and environmental impacts; Negative environmental impacts and mitigation measure; Negative social impacts and mitigation measure

	N/B To be organized in the project phase pre-construction, construction, operation and decommissioning (if applicable)
Chapter 9 Environmental and Social management and monitoring plan (ESMMP)	<ul style="list-style-type: none"> o To be organized in the project phase pre construction, construction, operation and decommissioning (if applicable)
Chapter 10: Conclusion and Recommendations	<ul style="list-style-type: none"> o Should be precise, specific and clear
References	<ul style="list-style-type: none"> o
Annexes	<p>Project layouts;</p> <ul style="list-style-type: none"> • Minutes of stakeholder consultations • Questionnaires; • Bill of Quantities • Hydrogeological Assessment Report <p>Acquired permits and/or applications</p>

ANNEX 10: Grievance Form

Name of Commenter/ Aggrieved		Comment/Grievance Number	
Name of Organization (if applicable)			
Address and Position			
Telephone/Fax			
Email Address			
Method of Grievance Placement	Mail / Email / Phone / Walk In (Face to Face)		
Most effective means to send a response	Mail	Email	Phone
Date and Time of Comment /Grievance	Date	Time	
Nature and location of Comment/Grievance	Please provide details of grievance.		
What outcome are you seeking?			
Additional Information			
Any Supporting Documents Attached	Yes	No	
Initial Response details			
Date of initial response:			
Resolved/Addressed by:			
Nature of Resolution:			
Date of Resolution:			

Claimant Signature (if applicable):**Date:**

FSRP Representative Signature:**Date:**

ANNEX 11: Grievance Register

Ref No.	Date	Name	Phone	Post	Email	Description of Grievance	Date of Grievance	One-time grievance	Happened more than once	Ongoing	Expected Resolution/Redress	Action identified to resolve the grievance	Date taken	Taken by whom	Complainant satisfied	If not, why?

ANNEX 12: Framework Waste Management Plan

Categorization	Sub Projects	Activities that generate waste	Waste to be generated	Mitigation Measures (Disposal)	Permits/Licenses
Water Infrastructure	Sub Surface Infrastructure (Dams, Water Pans, Earth/Sand Dams, water ponds)	<ul style="list-style-type: none"> Excavation works Construction activities Operation and maintenance activities 	<ul style="list-style-type: none"> Excavated Soil Waste bags and cartons i.e. Cement bags Waste wood Human waste Oil waste Livestock waste 	<ul style="list-style-type: none"> Provide toilet facilities away from the project but accessible to workers and users Reuse/recycle soil on embankment Designate area for waste disposal/collection at the site Provide waste bins on the site Set up designated site equipped with oil sump for servicing and refueling of vehicles/machinery Dispose waste at designated sites approved by NEMA 	<ul style="list-style-type: none"> NEMA Approval/License WRA Permit
	Irrigation Systems	<ul style="list-style-type: none"> Laying of pipelines Operation and maintenance activities Cropping activities 	<ul style="list-style-type: none"> Excavated soil Waste bags and cartons Crop residue Oil waste Human waste 	<ul style="list-style-type: none"> Provide toilet facilities away from the project but accessible to workers and users Use the excavated soil to refill the pipelines Compost crop residue or use as livestock feeds Provide waste bins on the site Dispose waste at designated sites approved by NEMA 	<ul style="list-style-type: none"> WRA Permit NEMA Approval /License
	Ground Water (Borehole)	Sinking of borehole	<ul style="list-style-type: none"> Waste water Excavated soil Oil waste Human waste 	<ul style="list-style-type: none"> Provide toilet facilities away from the project but accessible to workers and users Segregate waste and provide for appropriate waste disposal Provide for waste bins at the site Designate specific area for waste collection 	<ul style="list-style-type: none"> NEMA Approval/License WRA Permit
Livestock Infrastructure	Quarantine Yards	<ul style="list-style-type: none"> Excavation works Construction works 	<ul style="list-style-type: none"> Excavated soil Human waste Livestock waste 	<ul style="list-style-type: none"> Reuse excavated soil for refill and landscaping 	<ul style="list-style-type: none"> NEMA Approval/License

Categorization	Sub Projects	Activities that generate waste	Waste to be generated	Mitigation Measures (Disposal)	Permits/Licenses
		<ul style="list-style-type: none"> • Operation and maintenance activities 		<ul style="list-style-type: none"> • Provide toilet facilities away from the project but accessible to workers and users • Collect livestock waste and dispose at designated site 	
	Fodder and Feed Infrastructure	<ul style="list-style-type: none"> • Excavation works • Construction works • Operation and maintenance activities 	<ul style="list-style-type: none"> • Excavated soil • Waste papers/cartons from wrapping • Waste containers • Feed residue 	<ul style="list-style-type: none"> • Reuse excavated soil for refill and landscaping • Provide toilet facilities away from the project but accessible to workers and users • Compost fodder and feed residue • Provide soak pit for liquid waste disposal 	<ul style="list-style-type: none"> • NEMA Approval/License
	Slaughter houses	<ul style="list-style-type: none"> • Excavation Works • Construction works • Operation and maintenance activities 	<ul style="list-style-type: none"> • Excavated soil • Offal and bones • Hides and skin • Waste water • Condemned Carcasses • Undigested feeds • Hair, feathers, hooves, beaks, spurs, and horns • Contents from abdomen 	<ul style="list-style-type: none"> • Reuse excavated soil for refill and landscaping • Dispose condemned carcasses in condemnation pit • Dispose blood waste in blood tank • Dispose waste water in soak pit • Sell the offal, hides. Skin, hooves etc. • Provide for soak pit for effluent waste • Compost undigested waste • Use abdomen content to feed bio-digester for green gas production 	<ul style="list-style-type: none"> • NEMA Approval/License • Slaughter House License • Effluent Discharge License (EDL) • Public Health Permit
Road infrastructure	Feeder Roads	<ul style="list-style-type: none"> • Excavation works • Construction works 	<ul style="list-style-type: none"> • Excavated soil • Cement bags • Used containers • Wood and metal cuttings 	<ul style="list-style-type: none"> • Reuse excavated soil for refill • Dispose cement bags, metal cuttings, waste wood and used containers in designated sites 	<ul style="list-style-type: none"> • NEMA License • KERRA Approval
Livestock Pest and Diseases	Livestock pest and disease control	<ul style="list-style-type: none"> • Vaccination • Drug administration • Spraying against external parasites 	<ul style="list-style-type: none"> • Used containers, syringes and Cartons 	<ul style="list-style-type: none"> • Dispose at designated sites 	<ul style="list-style-type: none"> • Approved IPMP

Categorization	Sub Projects	Activities that generate waste	Waste to be generated	Mitigation Measures (Disposal)	Permits/Licenses
Crop Pests and Disease	Crop pest and disease control	<ul style="list-style-type: none"> • Pest and disease management activities 	<ul style="list-style-type: none"> • Used containers 	<ul style="list-style-type: none"> • Dispose at designated sites 	<ul style="list-style-type: none"> • Approved IPMP
Sustainable Land management Structures	Rehabilitation of gullies and degraded land	<ul style="list-style-type: none"> • Excavation works • Construction works 	<ul style="list-style-type: none"> • Excavated soil • Waste metal and wood cuttings • Waste bags i.e. cement bags 	<ul style="list-style-type: none"> • Use excavated soil to refill • Dispose solid waste un designated sites 	<ul style="list-style-type: none"> • NEMA Approval/License •
Market Infrastructure	Market stalls, collection sheds, Agro processing facilities	<ul style="list-style-type: none"> • Excavation Works • Construction works • Operation and maintenance activities 	<ul style="list-style-type: none"> • Excavated soil • Waste water • Cartons, used containers, polythene papers • 	<ul style="list-style-type: none"> • Use excavated soil to refill and landscaping • Provide for toilets • Dispose solid waste in designated sites • Provide septic tank and soak pit for liquid and solid waste 	<ul style="list-style-type: none"> • NEMA Approval/License • Public Health Permit • Waste Collection and Transportation License