



Food and Agriculture Organization
of the United Nations

Annex 6

Environmental and Social Management Framework (ESMF)

For the GCF-FAO Project “Transforming Livelihoods through Climate Resilient, Low Carbon, Sustainable Agricultural Value Chains in the Lake Region Economic Bloc, Kenya”

PREFACE

This Environmental and Social Management Framework (ESMF) for the Government of the Kenya will be applied to all activities financed by the Green Climate Fund (GCF) for technical and/or financial support for the project, “Transforming Livelihoods through Climate Resilient, Low Carbon, Sustainable Agricultural Value Chains in the Lake Region Economic Bloc, Kenya”.

The implementation of the environmental and social safeguards is based on the overall project implementation arrangements. FAO will serve as the Accredited Entity (AE) for this project. As such, FAO will be responsible for the overall management of the project, including: (i) all aspects of project appraisal; (ii) administrative, financial and technical oversight and supervision throughout project implementation; (iii) ensuring funds are effectively managed to deliver results and achieve objectives; (iv) ensuring the quality of project monitoring, as well as the timeliness and quality of reporting to the GCF; and (v) project closure and evaluation. FAO will assume these responsibilities in accordance with the detailed provisions outlined in the Accreditation Master Agreement (AMA) between FAO and GCF.

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Abbreviations

AGT	Agriterra
ACLED	Armed Conflict Location & Event Data Project
AFOLU	Agriculture, Forestry and Land Use sectors
AGYW	Adolescent Girls and Young Women
AZE	Alliance for Zero Extinction Sites
CEDAW	Convention on the Elimination of Discrimination against Women
CIS	climate information services
COK	Constitution of Kenya
CRC	Convention on the Rights of the Child
CRLCSA	Climate Resilient, Low Carbon, Sustainable Agricultural
E&S	Environmental and Social
EE	Executing Entities
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
FESM	Framework for Environmental and Social Management
FFS	Farmers Field School
FGM	Female Genital Mutilation/cutting
FI	Financial Intermediaries
FOs	Farmers Organizations
FAO	Food and Agriculture Organization
FPIC	Free Prior and Informed Consent
GAP	Gender Action Plan
GBV	Gender Based Violence
GBVH	Gender Based Violence and Harassment
GCF	Green Climate Fund
GHG	Green House Gas
GIIP	Good International Industry Practices
GoK	Government of Kenya
GRM	Grievance Redress Mechanism
HDI	Human Development Index
HHP	Highly Hazardous Pesticides
IBA	Important Bird Areas
ICERD	International Convention on the Elimination of All Forms of Racial Discrimination
IFC	International Finance Corporation
ILO	International Labour Organization
IP	Indigenous Peoples
IPM	Integrated Pest Management

IPP	Indigenous Peoples Plan
IPPF	Indigenous Peoples Planning Framework
IWRM	Integrated water resources management
KBA	Key Biodiversity Area
LMS	Low-carbon Landscape Management Strategies
LREB	Lake Region Economic Block
LVB	Lake Victoria Basin
OHS	Occupational Health and Safety
OiG	Office of the Inspector General
PLWD	People Living with Disabilities
PMU	Project Management Unit
POC	Project Oversight Committee
PSC	Project Steering Committee
PTF	Project Task Force
SEAH	Sexual Exploitation, Abuse, and Harassment
SEP	Stakeholder Engagement Plan
SGBV	Sexual and Gender Based Violence
VC	Value Chain
VGGT	Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security
WRMA	Water Resources Management Authority

Executive summary

1. The agriculture sector in Kenya is highly vulnerable to the impacts of climate change. **All Lake Region Economic Block (LREB) counties are experiencing increasing drought periods and annual average surface temperatures, however, heavy rainfall events** (causing riverine and flash floods, landslides, water-borne diseases and pest outbreaks) **seem to have the highest impact on LREB communities.** These extreme flooding events are responsible for the highest livelihood losses and high levels of mortality in the country. Impacts from inter-related climate hazards are exacerbated by anthropogenic pressure on key socio-economic activities in the region, such as deforestation leading to losses in biodiversity and ecosystems diversification, land use changes, urbanization, and weak water management systems and pollution¹. **LREB livelihoods are highly vulnerable to climate change.** Projected increasing daily maximum and minimum temperatures together with changes in the length and intensity of the long rainy season, will have significant impacts on Kenya's rainfed agricultural and economic systems². Considering that the LREB is the main agricultural region in Kenya and the largest source of freshwater in the region, it is a major contributor to food security and income to the entire country; defining sustainable and climate resilient pathways for agriculture in the area is fundamental and beneficial for the entire country's economy.

2. The **objective of the project** is to foster the emergence of climate-resilient, low-carbon, environmentally sustainable, and financially viable agriculture value chains by accelerating the transfer of technology, knowledge, assets and services with a focus on agri-food cooperatives as key agents to leverage rural change. The project proposes a set of practices designed to prevent economic losses and to increase productivity as a means of improving resilience to climate change, along with a set of practices designed to ensure that any gains are not made at the cost of increasing emissions. The project is structure four connected components: 1) Enabling local government support for adaptation and mitigation; 2) Sustainable Resilient Agricultural Landscapes; 3) Resilient livelihoods; 4) Scaling through CRLCSA market and finance.

Environmental and Social Safeguards Management Framework (ESMF) approach:

3. The project is aligned with the [FAO Environmental and Social Standards](#) (2022), and GCF policies including the revised [GCF Environmental and Social Policy](#) (2021), [GCF Indigenous Peoples Policy \(IPP\)](#) and the [GCF Information Disclosure Policy](#) (2016), GCF Policy on the Prevention and Protection from Sexual Exploitation, Sexual Abuse and Sexual Harassment ([GCF SEAH Policy](#)), among others. Stakeholder consultations process was carried planned at the community level in the project area through period 2022-2023, considering GCF (2022) guidance on [designing and ensuring meaningful stakeholder engagement](#). Findings and feedback from these consultations will be integrated into this document and other project-related documents as it becomes available.

4. **FAO Framework for Environmental and Social Management (FESM)**, which replaces the Environmental and Social Management Guidelines (adopted in 2015), establishes the environmental and social performance requirements for FAO programming. It includes key elements of a human rights-based approach with the goal to ensure that people and the environment are protected from any potential adverse impacts of FAO programmes and projects, that all stakeholders have ample opportunities to

¹ World Bank Group. WBG. 2021. Climate Risk Profile: Kenya (2021): The World Bank Group.

https://climateknowledgeportal.worldbank.org/sites/default/files/2021-05/15724-WB_Kenya%20Country%20Profile-WEB.pdf

² Ayugi, Brian Odhiambo, Wang Wen and Daisy Chepkemai. "Analysis of Spatial and Temporal Patterns of Rainfall Variations over Kenya." *Journal of environment and earth science* 6 (2016): 69-83. Kenya Meteorological Department, 2021. Extreme climate events in Kenya 2011 to 2020. https://meteo.go.ke/sites/default/files/downloads/STATE%20OF%20THE%20CLIMATE%202020_14042021.pdf

actively participate in the activities of programmes and projects and have access to effective channels to voice their concerns about them.

5. As the finer details of proposed activities (e.g., specific location and selection of Climate Resilient, Low Carbon, Sustainable Agricultural (CRLCSA) technologies, etc.) under the project have not yet been determined, a framework approach has been adopted. Under this approach, the present Environmental and Social Management Framework (ESMF) has been prepared by FAO to (i) identify all the potential but generic negative environmental and social impacts; (ii) propose mitigation measures; (iii) provide basic screening criteria for selecting sub-activities; (iv) list the type of instruments to be developed for individual sub-activities during implementation; and (v) provide institutional arrangements, grievance redress mechanisms (GRM) and monitoring, reporting and documentation measures for environmental and social safeguards compliance. The ESMF covers all activities within the project.

6. To comply with GCF's Policy on Environmental and Social Safeguards, including related guidelines, policies, and principles, an Environmental and Social Management Framework (ESMF) has been developed, because priority areas for interventions and further details of project activities will be defined only during the implementation phase of the project. The ESMF for this Project is based on the mitigation hierarchy, and contains measures and plans to avoid, and where avoidance is not possible, to reduce, mitigate and/or offset adverse risks and impacts. Under this approach, the present ESMF has been prepared by FAO to (i) identify all the potential but generic negative environmental and social impacts; (ii) propose mitigation measures; (iii) provide basic screening criteria for selecting sub-activities; (iv) list the type of instruments to be developed for individual sub-activities during implementation; and (v) provide institutional arrangements, grievance redress mechanisms (GRM) and monitoring, reporting and documentation measures for environmental and social safeguards compliance. The existing Gender Analysis should be strengthened through consultation at the site level programmed as an integral part of the social baseline analysis. The ESMF covers all project outputs/components to ensure that the sub-project/activities are screened and assessed and that appropriate management measures are in place prior to implementation.

7. **Risk categorization:** The project is expected to predominantly generate substantial positive environmental and social benefits, including, but not limited to enhance resilience of vulnerable smallholder and key value chains to the impacts of climate change, reduce GHG emissions from Agriculture, Forestry and Land Use sectors (AFOLU), strengthen land use planning, among others. Nonetheless, the project has the potential to generate adverse social and environmental impacts that need to be carefully managed and monitored.

8. The FAO Project Environmental and Social Screening Checklist was prepared, and the project was categorized as a **Moderate Risk Project** (Category B project), where:

- There are identified potential adverse environmental and social impacts requiring the need for environmental and social management plans, including: proximity to protected areas, potential generation of new environmental waste from agro-industrial activities, indirect trigger for increased pesticides use (even when Integrated Pest Management: IPM is being promoted) and construction of small scale of agro-facilities. It is expected that the project activities, as described in Chapter 2, will trigger the following Environmental and Social Safeguard Policies: ESS1, ESS2, ESS4, ESS5, ESS6, ESS7, ESS8 (see Table below).
- Potential impacts are limited to the project's footprint, not unprecedented in the project area, neither irreversible nor cumulative

- Potential adverse impacts can be addressed using recognized good management or pollution abatement practices that include FAO guidelines as well as World Bank Group Environmental, Health and Safety Guidelines (known as EHS Guidelines³)

Table 1 Project applicable E&S safeguards

Safeguard Policy	Triggered	Safeguard Instruments & Mitigation Measures
ESS 1. Biodiversity conservation, and sustainable management of natural resources	Yes	<ul style="list-style-type: none"> • Non-eligible activities (Appendix 1 Exclusion List) • ESMF/ Environmental and Social Management Plan (ESMP) • Biodiversity Management Planning Framework (Appendix 10 of the ESMF) <p>The project aims at sustainable intensification and adoption of CRLCSA practices. No land conversion will take place, this includes expansion of agriculture frontier, clearing of native forest or similar activities, or increasing areas under cultivation within protected areas. The project will work mainly with local/native breeds and species sourced from local or national markets where available. All genetic material for plants and animals (seedling/planting material, species, breeds) should be free from pests and diseases. Farm Field Schools curricula include awareness raising and dissemination of good agricultural practices to prevent the spread and use of plants/animals that might be infected with pests and diseases, additionally project promotes IPM.</p>
ESS2. Resource efficiency and pollution prevention and management	Yes	<ul style="list-style-type: none"> • ESMF/ESMP <p>Practices and technologies promoted by the project aim at improving efficiency in the use of natural resources (water, land, soil, energy) through inclusive and participatory approach of women, man, youth, elders, People Living with Disabilities (PLWD) and Indigenous Peoples. The project promotes the use of local or native breeds and species (for livestock, poultry and planting/seedling material), IPM to reduce use and dependency of agrochemicals (Refer to Appendix 3) and integrates sustainable soil and water management. The project will not introduce crops, varieties, breeds or species that are not previously grown/breed in the project area or the LREB. FFS curricula and programs promote good agricultural practices, which includes sustainable water and soil management practices, such as conservation agriculture, integrated production systems (permaculture, agroecology, agro-sylvo-pastoralism), others.</p>
ESS3. Climate change and disaster risk reduction	Yes	<p>The Project conducted a Climate Risk Assessment and the findings from this assessment have been fully considered in the project design.</p>
ESS4. Decent work	Yes	<ul style="list-style-type: none"> • ESMF/ESMP • Labour Management Plan (Appendix 12 of the ESMF) <p>The project will ensure compliance with national and international employment and labor regulations and guidelines. All employment relationships will be based on the principle of equal opportunity and fair treatment and will not discriminate. Training and sensitization campaigns will be carried out for farmers/FOs on Occupational,</p>

³ <https://www.ifc.org/content/dam/ifc/doc/2023/ifc-general-ehs-guidelines.pdf>

		Health, and Safety (OHS), child labour, and appropriate work for youth. The project supports knowledge generation and will generate youth/women opportunities in selected value chains, and support rural youth/women/PLWD access to information and productive resources. The project will ensure that children under aged are not employed through adequate and verifiable mechanisms for age verification in recruitment procedures. Project will also conduct sensitization training on safe, decent rural employment and age-appropriate work, given that youth often assist with the farming work.
ESS5. Community health, safety, and security	Yes	<ul style="list-style-type: none"> • ESMF/ESMP • Zero tolerance of Sexual Exploitation, Abuse, and Harassment (SEAH) / Gender Based Violence (GBV) • Labour Management Plan (Appendix 12 of the ESMF) <p>The project adopts a Zero tolerance of SEAH and GBV, all project stakeholders will participate on sensitization campaigns and training on SEAH & GBV (EEs, counties authorities, FFS, FOs). Additional risks for the community are related to exposure of waterborne diseases, vector-borne diseases, zoonotic diseases, food-borne diseases from construction of small dams and agro-facilities. The project activities will follow recommendations established by industry-specific best management practices (e.g. Environmental, Health & Safety Guidelines, for management of risks related to community health and safety). Design, construction, operation, and decommissioning of structural elements will follow national legal requirements and good international practice, ensure inclusive engagement to avoid increasing inequalities.</p>
ESS6. Gender equality and prevention of gender-based violence	Yes	<ul style="list-style-type: none"> • ESMF/ESMP • Gender Action Plan (GAP) (Annex 8 of the FP) • Zero tolerance of SEAH/ GBV <p>Project design and implementation incorporates gender equality and prevention of gender-based violence as an integrated element, a Gender Analysis and Action Plan, with specific gender-targeted activities and indicators was developed (FP Annex 8). The project will have zero tolerance for all forms of SEAH. The project's GRM will be accessible for all project-related complaints, including SEAH-specific complaints. The GRM will be survivor-centered and gender responsive, and will have specific procedures for SEAH, including confidential reporting and safe and ethical documenting (see Chapter 5). ESMF/ ESMP also includes measures to facilitate social inclusion and enhance gender equality, and safeguard against SEAH.</p>
ESS7. Land tenure, displacement, and resettlement	Yes	<ul style="list-style-type: none"> • ESMF/ESIA • Non-eligible activities (Appendix 1 Exclusion List) <p>The project activities will not lead to involuntary resettlement or displacement of people or communities; resources from the project will not be used for land acquisition. No set aside land or additional conservation areas (e.g., national park) will be established as part of</p>

		the project. Reforestation/rehabilitation areas will take place mainly on public or community land (executed by county administrations) or interventions on private land (executed by communities with funding from counties) and will focus on areas where such interventions can facilitate or leverage improved productivity through ecosystem services. Proposed activities will mostly imply the involvement of communities on a purely voluntary and demand-driven basis. Project will employ Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests and incorporate land tenure assessment as part of the landscape/watershed strategies.
ESS8. Indigenous Peoples	Yes	<ul style="list-style-type: none"> • Indigenous Peoples Planning Framework (IPPF) in the ESMF and subsequent ESMP and Indigenous Peoples Plan (IPP) • Free Prior and Informed Consent (FPIC) <p>The project activities will not lead to involuntary resettlement or displacement of people or communities; resources from the project will not be used for land acquisition or resources. FPIC will be carried out before any project activity is implemented, and it will consider the active participation of Indigenous Peoples living in the project area, as well as those Indigenous Peoples (nomadic pastors and hunter gatherers that depend on the resources of the project area of influence. Some of the project activities could affect IPs and their livelihood (e.g., loss of access to grazing land, interference with pastoralist livelihood), if these groups are excluded from planning and decision-making processes (e.g. Indigenous groups are represented in project main Committees). Any involuntary restrictions on land use and access to natural resources is subject to traditional ownership or under customary use (under component 2) and will be addressed by ensuring IPs rights are respected and that they are involved in the development, implementation, and monitoring of the project and in the decision- making processes.</p>
ESS9. Cultural heritage:	Yes	<ul style="list-style-type: none"> • Non-eligible activities (Appendix 1 Exclusion List) • Chance Find Procedures (Appendix 4 of the ESMF) <p>The project will not invest in areas identified as cultural heritage sites. These include; shrines, village squares, etc. The project specific ESMP will ensure that the scoping and screening exercises caption these kinds of issues. Additionally, the Chance Find Procedures (Appendix 4 of the ESMF) will be included in all third-party contracts (e.g. Letters of Agreement) to make sure the project will not be implemented in cultural heritage sites.</p>

Source: Authors' own elaboration.

9. Positive impact: The project is expected to improved resilience of the agricultural landscapes through appropriate planning strategies that are gender and socially responsive (consider needs of marginalized groups and minorities) and that integrate climate risk assessment and updated climate and agricultural information/database. Through climate-oriented farmer field schools (FFS) and improved, gender and social-responsive extension services, smallholders (men and women) will enhance their knowledge and improve access to inputs (e.g. technology and financial and non-financial services) that will enable them to adopt practices to improve their adaptive and coping capacity to climate change adverse impacts, decrease environmental degradation, improve forest cover, strengthen farmers organizational capacities,

increase carbon sequestration and improve farmers livelihoods. Other positive impacts include improve access to climate information services (CIS); protect and conserve biodiversity and the ecosystem services, increased capacity of extension workers to provide better and more inclusive services to all (women, youth, PLWD), improve access to information to support farmers in making informed decisions and to adopt most suitable CRLSA practices. The project adaptation measures, such as the construction and/or rehabilitation of water conservation systems and promotion of irrigation efficiency infrastructure (water conservation and efficient irrigation systems) will support agriculture and farming activities, with potential yield increase and improve farmers livelihood. Furthermore, potential reduction on GHG emissions is expected through the promotion of renewable energy sources at various stages of the value chains. The project also engages women through a Gender Action Plan that ensures proactive mainstreaming of women into all activities, empowering women with agricultural skills and knowledge, and include on-going training to combat SEAH and GBV.

10. Negative impacts: Covers potential minor, mitigatable, and forecast only for the implementation/operation stages. From the social perspective, the project could exclude landless farmers and tenants; ethnic minorities/vulnerable groups; increase land tenure conflict; increased value of land due to heightened agricultural productivity and issues related to restrictions on land use and access to natural resources; increase GBVH within key Value Chain (VC). Due to country context, youth and children often assist with the farming work of their respective families, and there is a risk that these youngsters might work beyond what is age-appropriate (unless closely monitored). From the environmental perspective, increased agricultural production may result in the generation of new/additional environmental wastes; eutrophication issues or solid contamination due to inadequate or increase use of fertilizers that do not fully breakdown/decompose, as well as involuntary increase in the use of pesticides, even when the project is promoting more sustainable management of pest through IPM, agroecology and organic agriculture. Provision of seed, plantings and other plant or animal genetic resource might pose certain risks, even when the recommended species/inputs/breeds used will be those already adapted to the region and/or registered/certified in the country (no introduction of new species or exotic species will take place, refer to exclusion list). Additionally, health, safety and occupational risk might derive from minor construction/rehabilitation activities of agro-processing facilities, and from agriculture work, which includes noise and air pollution, handling of waste and wastewater from the facilities, as well as exposure to physical and chemical hazards during operation of certain facilities (within value chain). Most of this risk are derived from the implementation of the activities under Output 3 and 4 and are considered as low-to-moderate risk, localized, temporary, and mitigatable through mitigation plans and adoption of international standards and good practices.

11. The measurable co-benefit of this project is job creation in the 6 value chains, while indirect benefits include increased economic activity in the supply chains for agricultural inputs and feed value chains, and increased employment in the transporting and bulking aspects of the value chain. The project will track jobs that are directly created through project interventions and those that are created in beneficiary farmer organizations and cooperatives. The expected number is 2000 jobs created over the duration of the project. However, data from county government employment statistics will be consulted to confirm trends at large in the agriculture sector.

- Direct jobs: Under Activity 3.1.1 jobs will be created for facilitators and master trainers for FFS: In year one, at least 14 Master trainers and around 700 Facilitators (50% women), where the project will cover stipends. Some of these jobs are expected to outlast the project. Under Activity 3.1.2 jobs will be created for coop extension officers (EO), approximately 260 jobs (at least 2 per coop), starting year 2. It is expected that these jobs will outlast the project. Additionally, at least 300 positions will

be short-term staff or consultants recruited by the project to help deliver training, provide expertise, etc. including Agripoolers.

- Indirect jobs: All the rest are going to be indirect jobs created by the increase in economic activity in the 6 VC, but we cannot really tell who and how many, or what types of contracts. This could include drivers for the transport companies taking produce to markets, operators of post-harvest infrastructure, coop staff, graders, staff in institutional buyers, employees of banks, etc.

12. At the country level, Kenya's FAO office has experience implementing the ESMF tools and ESMP monitoring, and will apply best practices for risk avoidance, mitigation, and management. Additionally, E&S consultants/specialist will be contracted to support project implementation, and on-going awareness and training will be conducted at different levels to enhance the capacities of relevant stakeholder to manage E&S risks (including project staff, executing entities and implementing partners). Special attention will be placed to ensure regular training to all project related personnel and stakeholders on issues related to SEAH and GBV, strengthening the FAO-GRM to handle such incidents; and establishing and operationalizing GBV referral pathways in collaboration with local partners. These measures will be inclusive, survivor-centered and gender responsive and bolstered by gender empowerment activities and sensitization and mobilization of community gatekeepers. Worker and community safety have also been considered, and international guidelines to ensure occupational, health and safety will be adopted to ensure decent work and to improve the project environmental and social performance.

13. Project sub-activities will be subject to project screening process (using FAO Screening checklist – Appendix 6) to identify potential E&S risks and impacts. Depending on the classification and level of risk identified, Environmental and Social Management Plans (ESMPs) will then be prepared. Given that the project is considered medium risk overall, it is expected that only some of the project activities will require ESMPs following the screening phase. Additionally, all project activities will have to ensure compliance with Kenya's environmental and social regulation and obtain necessary construction and or operation permits and licenses.

14. **Institutional arrangements:** Overall compliance with the project's ESMF will be assured by the project's National Safeguards Specialist, hired within the Project Management Unit (PMU), who will work closely together with the National Safeguard Specialist (includes: E&S, Gender & Social Inclusion, Land Tenure, Indigenous Specialist) and International Specialist (E&S and Gender). Furthermore, all Executing Entities (EEs and Implementing Partners will undergo capacity building training on FAO's E&S safeguards and will designate a contact person for environmental and social matters.

15. **Sexual exploitation, abuse, and harassment (SEAH):** There will be zero tolerance of SEAH, and the project's ESMF and ESMP will mainstream SEAH risk mitigation, in accordance with the revised GCF Environmental and Social Policy (2021) and the FAO Framework for Environmental and Social Management (FESM). The project will support gender sensitization and training for project staff and beneficiaries on gender equality and social inclusion and SEAH and will elaborate a code of conduct for the implementation of the project. Specific procedures for SEAH will be developed for the project GRM, together with the elaboration of the ESMP, to ensure the mechanism is survivor-centered and gender-responsive (including confidential reporting), and to facilitate linkages to related services and redress to anyone affected by SEAH.

16. **Grievance and Redress Mechanism (GRM).** The PMU and Regional Project Offices will be responsible for managing the grievance and redress mechanism. Project related SEAH and GBV grievances will be managed through the existing FAO GRM system, which will also be strengthened to include a

procedure for SEAH so that it is inclusive, survivor centered and gender-responsive, complemented by GBV referral pathways.

17. The project's employment relationship will be based on the principle of equal opportunity and fair treatment related to recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices. Through GRM and SEAH principles adopted, the project will aim at preventing and address harassment, intimidation, and/or exploitation, especially regarding women.

18. Stakeholder engagement will remain a key cross-cutting element of the project throughout project implementation. Project outputs and activities include regular stakeholder engagement events. This approach will ensure transparency, inclusiveness, and free speech of all stakeholders in diverse context of the project regions and provinces. Stakeholder engagement in the project M&E and the implementation of the ESMF and GAP will also be ensured (FP Annex 11).

19. Human resources. Within the project PMU, a dedicated team of E&S experts will be hired to support the implementation of the project, this team will be led by an Environmental and Social Safeguard Specialist with the Gender and Social Inclusion Specialist and the support of Indigenous People Specialist and Land Tenure Specialist, which will support, based on their expertise, the implementation of the ESMF, GAP, ESIA/ESMP and FPIC and other related plans that are to be developed during early stage of the project implementation. In addition, if deemed necessary, the project has provision hiring an International ESS Specialist and or Gender and Social Inclusion to provide technical guidance or support to the national specialist, this will be coordinated with the PMU and will be aligned with the project implementation timeline.

20. Budget. The overall ESMF budget (Appendix 5) is USD 1,097,356 for a blend of Environmental and Social safeguard experts (USD 674,856), travel (USD 22,500) and other costs (USD 400,000) related to FPIC, GRM and gender. Gender activities in the Gender Action Plan are included in the project activities budget. ESS compliance and GAP monitoring are also included in the baseline, mid and end-line surveys, project Monitoring and Evaluation and Management Information System (MIS) for which separate budget are included.

1. Introduction

21. General Information at project area of influence: The **Lake Region Economic Bloc (LREB)** is one of the most densely populated regions of Kenya with a total population of 14,944,943 including 7,239,652 males, 7,704,922 females, and 366 intersex⁴. The population density is quite high in some counties; the national urban-rural pattern of distribution in multidimensional poverty is repeated in the 14 LREB counties, all of which have over 50% of their populations experiencing multidimensional poverty. Food security, the LREB counties and parts of central Kenya remain relatively protected thanks to continued water availability. However they are closely watched, as agricultural productivity in those areas is also tied

⁴ Kenya National Bureau of Statistics, 2019. The share of the population under 19 years is 44 % with 45 % male and 43 % female; those aged between 15 and 64 constitute 49%, and those above 65 years make up 3 % of the total population.

to rainfall. Food demand arising from the other regions is likely to create pressure on land use in the LREB. The LREB has one of the highest rates of urban expansion in Africa⁵.

22. Agriculture in Kenya. Most Kenyans work in the agriculture sector and 80% of the population is reliant on agricultural output for food security and livelihoods⁶. Of Kenya's 47.6 million people, 18.3 million (38%) are employed in the formal sector⁷. The rest of the population - 29.3 million people (62%) - work in the informal sector, primarily in small-scale agriculture and pastoralism⁸. Key crops at the national level are sorghum, soybeans, and sugar. Food crops and most horticultural crops (vegetables) are consumed domestically. Meat and dairy dominate the livestock sub-sector, while cut flowers and vegetables dominate horticulture; tea, coffee, and sugarcane, are the main industrial crops.

23. Agriculture in LREB. Agriculture occupies 72 % of the total working population in the LREB. Most crop farmers are smallholders, meaning plots are usually no more than 0.2 to 1 hectare with chronically low productivity⁹. Livestock farmers also have small herds (typically 3-4 animals) with limited coping capacity and low productivity. In the the LREB, major cash crops are: sugarcane, tea, pyrethrum, and cotton.¹⁰ Developed cash crop value chains, such as tea and coffee are also practised by smallholders pooling their production through farmer organizations and cooperatives. Key food crops are: maize, rice, and beans; and major horticultural crops are: passion fruits, mangoes, and tomatoes, with household staples such as leafy vegetables (LV).¹¹ The livestock industry contributes about 10% of the GDP of the country, with the major livestock types in the LREB being dairy cattle, poultry, and goats¹². Industrialized agriculture in the LREB is concentrated around sugar factories, such as the South Nyanza Sugar Company in Migori, Muhoroni and Kibos Sugar and Allied Industries in Kisumu and Mumias Sugar in Kakamega City¹³.

24. Agriculture sector in Kenya is highly vulnerable to the impacts of climate change. All LREB counties are experiencing increasing drought periods and annual average surface temperatures, however, heavy rainfall events seem to have the highest impact on LREB communities. Projected increasing precipitation suggests that the risk of flooding and landslide events is expected to increase over time. Impacts from inter-related climate hazards are exacerbated by anthropogenic pressure on key socio-economic activities in the region, such as deforestation leading to losses in biodiversity and ecosystems diversification, land use changes, urbanization, and weak water management systems and pollution¹⁴. **LREB livelihoods are highly vulnerable to impacts of climate change.** Projected increasing daily maximum and minimum temperatures together with changes in the length and intensity of the long rainy season, will have significant impacts on Kenya's rainfed agricultural and economic systems¹⁵. **Considering that the LREB is**

⁵ Güneralp, B.; Lwasa, S.; Masundire, H.; Parnell, S.; Seto, K.C. (2017) Urbanization in Africa: Challenges and opp Kiruki, H.M.; Zanden, E.H.; Malek, Ž.; Verburg, P.H. Land Cover Change and Woodland Degradation in a Charcoal Producing Semi-Arid Area in Kenya. *Land Degrad. Dev.* 2017, 28, 472–481.

⁶ FAO, 2023

⁷ Kenya National Bureau of Statistics. 2022. Economic Survey 2022. Retrieved from: <https://www.knbs.or.ke/wp-content/uploads/2022/05/2022-Economic-Survey1.pdf>

⁸ Kenya National Bureau of Statistics. 2022. Economic Survey 2022. Retrieved from: <https://www.knbs.or.ke/wp-content/uploads/2022/05/2022-Economic-Survey1.pdf>; page 54

⁹ Lake Region Economic Bloc, 2015

¹⁰ The Lake Region Economic BluePrint. 2020. Pg 16.

¹¹ idem

¹² Effects of Drought and Floods on Crop and Animal Losses and Socio-economic Status of Households in the Lake Victoria Basin of Kenya, Gichere et al, 2013.

¹³ Lake Region Economic Bloc, 2015

¹⁴ World Bank Group. WBG. 2021. Climate Risk Profile: Kenya (2021): The World Bank Group.

https://climateknowledgeportal.worldbank.org/sites/default/files/2021-05/15724-WB_Kenya%20Country%20Profile-WEB.pdf

¹⁵ Ayugi, Brian Odhiambo, Wang Wen and Daisy Chepkemoi. "Analysis of Spatial and Temporal Patterns of Rainfall Variations over Kenya." *Journal of environment and earth science* 6 (2016): 69-83. Kenya Meteorological Department, 2021. Extreme climate events in Kenya 2011 to 2020. https://meteo.go.ke/sites/default/files/downloads/STATE%20OF%20THE%20%20CLIMATE%202020_14042021.pdf

the main agricultural region in Kenya and the largest source of freshwater in the region, it is a major contributor to food security and income to the entire country; defining sustainable and climate resilient pathways for agriculture in the area is fundamental and beneficial for the entire country's economy.

25. In this regard, there is a strong need in developing and adopting systemic adaptation and mitigation planning measures to cope with climate hazards (increasing temperatures, heavy rainfall & flooding, intense droughts) at a local level, taking into account differences among 14 counties in the LREB, in the main key value chains¹⁶: coffee, dairy, fruit trees, indigenous vegetables, poultry, and tea. The climate analysis shows that the anticipated changes in climate would make smallholder farmers more vulnerable by reducing production and productivity across the 6 value chains, and that these farmers are already experiencing vulnerability and climate risks from current variability.

26. The objective of the project is to foster the emergence of climate-resilient, low-carbon, environmentally sustainable, and financially viable agriculture value chains by accelerating the transfer of technology, knowledge, assets and services with a focus on agri-food cooperatives as key agents to leverage rural change. Through the implementation of CRLCSA technologies and practices in the six value chains, inclusive planning/zoning processes (landscape and watershed management strategies); stronger and social sensitive extension services, inclusive training and capacity building programs, the project aims at:

- Provide better and more integral and inclusive extension services that meets needs and barriers of marginalized communities (includes IPs, women, youth, PLWD, elderly).
- Improve the resilience of farmers by reducing their sensitivity to current and projected climate risks and simultaneously improving their adaptive and coping capacity.
- Improved resilience of agricultural landscapes, which will continue to provide ecosystem services to the agriculture sector and local communities and reduce overall emissions from the AFOLU sectors in the LREB.
- Leverages cooperatives as a climate risk reduction mechanism, strengthening the ability of FOs and cooperatives to incorporate within their business activities/plans climate related risks, quantify related cost and design mitigation measures to address those risk (implement climate solutions that make both climate and financial sense to them).
- Stabilized and improved productivity, increased food security and nutrition, and reduced economic losses due to climate change through the implementation of climate resilient and low carbon practices in the six value chains.
- Increased market opportunities, fetch better prices, stronger bargaining positions and increased market shares.

27. The project proposes a set of practices designed to prevent economic losses and to increase productivity as a means of improving resilience to climate change, along with a set of practices designed to ensure that any gains are not made at the cost of increasing emissions. Some of the direct impacts and benefits of the project includes:

- **Direct beneficiaries:** The project reaches 572,000 **vulnerable smallholder farmers** whose livelihoods depend on any of the 6 VC in the targeted region. Of these, the project expects to reach at least 80,000 individual cooperative members (project participants), with direct benefits accruing to their households (a total of 320,000 people based on the conservative estimate of 4 people per household). Other beneficiaries are smallholder farmers who are not part of

¹⁶ Main key value chains were selected through consultation process with stakeholders. Refer to FS Section 6 for detail on targeting and selection of VC.

cooperatives (63,000 participating farmers with direct beneficiaries accruing to their households, 252,000 people). The project has established 50/50 target to benefit women and man, including youth beneficiaries (25%) and PLWD (2%).

- For **indirect beneficiaries**, we have assumed that benefits would accrue to members on non-participating cooperatives in the 6 value chains (1,342,140.00¹⁷), and that participants in the FFS would also transfer indirect benefits to extended family members and households in surrounding villages (756,000 people)¹⁸. This brings the total of immediate indirect beneficiaries to 2,098,140 people, 50% of which are women, and which represents nearly 15% of the Lake Victoria Economic Block population. However, in the long-term, it is estimated that through the upscaling strategy and the presence of Banks able to support cooperatives through loans, indirect benefits may be accrued by a much larger number of people in the Lake region.
- Each county will undertake **reforestation, conservation, restoration, afforestation, watershed management, and improved land management** in degraded hotspots of 200 ha around the agricultural landscapes targeted (for a total of 2,800 ha). Furthermore, 10,000 ha of forests and water towers will be rehabilitated to ensure watershed protection, biodiversity conservation and carbon storage. Modalities for implementation will include community-based delivery (involvement of local communities) and direct county-government execution. All reforestation, restoration and afforestation will be conducted using locally sourced seedlings of indigenous and/or local species, in case other species are use where suitable and tried, for which there is documented evidence of their climate resilience, taking special care to avoid accidental introduction of alien, invasive or non-native species.
- It is expected that at **least 2,000 direct jobs will be created** through the adoption of CRLCSA practices and improvements in the agro-processing industries, these jobs could include FFS Master Trainers and Facilitators, Cooperative extension officers, Farm labourers, among others.
- Development of **climate-resilient and low-carbon agricultural landscape and/or watershed management strategies (LMS)** though a participatory and inclusive mechanism to ensure Indigenous Peoples as well as other marginalized groups (women, youth, and PLWD) have an opportunity to voice their concerns and needs. The LMS will include at minimum: a state of agricultural landscapes, with mapping of land uses (public and private); identification of existing tenure rights and right holders (customary use of land and resource); soil cover intensity/density; erosion risk and land degradation hotspots; areas of high biodiversity value, critical habitats for endemic and endangered species, set aside areas, fragile areas (e.g., wetlands), and characterization of environmental degradation; monitoring and evaluation plan that will track specific indicators to measure the impact of the strategy on agricultural production, among others.

28. According to Food and Agriculture Organization of the United Nations (FAO) environmental and social safeguards, the Project has been classified as **a moderate risk (equivalent to Category B)**. The project's risk assessment was conducted using FAO's Environmental and Social Screening Form, which identifies areas of risk and based on the risk screening responses, resulted in the moderate-risk categorization. Due diligence for addressing identified risks is carried out through the Environmental and Social Management Framework (ESMF, this document) which guides project implementing agencies and stakeholders on environmental and social assessment, mitigation of impacts, and monitoring and reporting procedures during project implementation.

¹⁷ As per Cooperative census

¹⁸ <https://link.springer.com/article/10.1007/s10457-006-9007-8> and also <https://link.springer.com/article/10.1057/s41287-020-00323-7>

2. Project overview

29. This project “Transforming Livelihoods through Climate Resilient, Low Carbon, Sustainable Agricultural Value Chains in the Lake Region Economic Bloc, Kenya (CRLCSA)” seeks to implement a deep transformation of agricultural production, processing and marketing towards low-carbon, climate resilient pathways. The project builds on the private sector and the strength of the cooperative movement in Kenya and creates a mechanism for North-South and South-South technology transfer and upscale, leveraging the knowledge and expertise that exists in national and international farming networks. Focusing on six priority value chains (dairy, poultry, coffee, tea, fruit tree and indigenous vegetables), the project intends to transfer and upscale both adaptation and mitigation technology at each value chain’s production, harvesting, processing, and marketing stages. CRLCSA objective is defined as followed:

- To foster the emergence of climate-resilient, low-carbon, environmentally sustainable, and financially viable agriculture value chains by accelerating the transfer of technology, knowledge, assets and services with a focus on agri-food cooperatives as key agents to leverage rural change.

30. The proposed Project consists of four connected Components (see Funding Proposal and Annex 2.11 for further details):

Component	Activities	Executing Entity
1. Enabling local government support for adaptation and mitigation.	1.1.1 Develop and deploy innovative and efficient extension methods for disseminating and demonstrating CRLCSA knowledge, technologies, and practices in gender-responsive and socially inclusive ways	FAO
	1.1.2 Strengthen the dissemination of climate information services to last-mile users including women, youth and PwD through cooperatives and Farmer Organizations.	FAO
	1.1.3 Develop and test methodologies for decentralized carbon accounting	FAO
	1.1.4 Upgrade and update agricultural databases, crop and productivity datasets, cooperative census	FAO
	1.1.5 Assess local climate change impacts and eligible climate solutions for the ag-sector	FAO
	1.1.6 Share knowledge and lessons learned through existing platforms	FAO
2. Sustainable Resilient Agricultural Landscapes	2.1.1 Develop a county climate-resilient and low-carbon agricultural landscape management strategy and implementation plan, including improved watershed management, land use planning, reforestation, and natural regeneration	FAO
	2.1.2 Implement and monitor climate-resilient and low-carbon landscape management plans.	GoK
3. Resilient livelihoods	3.1.1 Deploy CRLCSA production/ processing assets and training to smallholder farmers, farmer organizations and associations	FAO

4. Scaling through CRLCSA market and finance	3.1.2 Disseminate CRLCSA technology, knowledge, and assets to cooperative members through peer-to-peer networks and exchanges	AGT
	3.1.3 Support smallholder farmer aggregation into cooperatives and other business units as climate risk reduction and risk sharing mechanisms	AGT
	4.1.1 Work with buyers and aggregators to increase demand and market opportunities for CRLCSA commodities	FAO
	4.1.2 Increase access to various certification and labeling schemes	AGT
	4.2.1 Develop gender-responsive and socially inclusive private finance tools, procedures, and products to promote the upscale of CRLCSA value chains	FAO
	4.2.2 Support smallholders and their business units in the development of bankable business plans, with particular focus on social inclusion and gender-based access	AGT
	4.2.3 Facilitate smallholders access to financial incentives schemes for agroforestry	AGT
M&E	Monitoring and Evaluation	FAO/AGT

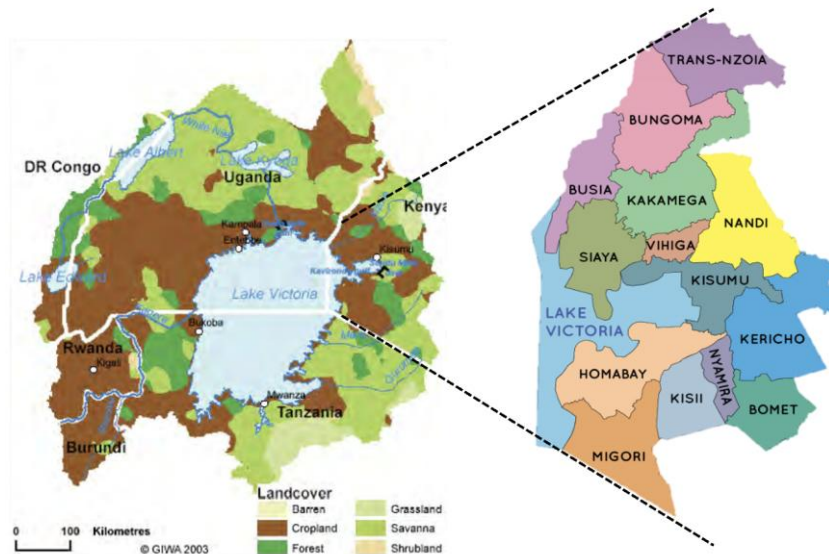
Source: Authors' own elaboration.

31. The project will be implemented in Kenya's **main agricultural region** integrated by 14 counties¹⁹ (Figure 1) that share similar agro-ecological conditions and that have come together to create the Lake Region Economic Bloc (LREB). These counties also share a common vision of sustainable development and are mobilized to take joint action to tackle environmental degradation, poverty and climate change:

- Northern counties: Trans Nzoia, Bungoma, Busia, Kakamega and Nandi
- Central/easternmost counties: Siaya, Vihiga, Kisumu and Kericho
- Southern/easternmost counties: Homa Bay, Migori, Kisii, Nyamira and Bomet

¹⁹ The selection of the project location was conducted using climate change vulnerability assessments and aligned to Government of Kenya priorities for resilient agriculture.

Figure 1 Project area of influence in the LREB²⁰



Source: Authors' own elaboration.

3. Environmental and social baseline

3.1 Environmental baseline

32. The Lake Victoria Region, also referred to as Lake Region Economic Bloc (LREB), one of the main producing regions of the country is facing impacts from the combination of increased temperatures, more frequent and intense droughts, and higher mean annual rainfall leading to increased flooding and runoff. These are going to impact agriculture, which employs 90% of the local population, through some of the key value chains. Given that the LVB is the largest source of freshwater in a semi-arid region, it is critical for Kenya's agriculture.²¹ Lake Victoria and its watershed is a transboundary natural asset of global importance. As the world's second largest lake, the Lake has a surface area of about 68,800 km² with an average depth of 40 meters. It is located in Tanzania (49%), Uganda (45%), and Kenya (6%). Lake Victoria Basin (LVB), part of the Nile River Basin, occupies an area of 194,000 km², which is jointly shared by Tanzania (44%), Kenya (22%), Uganda (16%), Rwanda (11%), and Burundi (7%)²². Rwanda and Burundi are a part of the upper watershed draining into Lake Victoria through the Kagera river. The lake is the headwater of the White Nile.

33. The Lake Victoria Basin (LVB) is used as a source of food, energy, domestic drinking and irrigation water and agricultural production, for shelter and transport, recreation and as a repository for human, agricultural and industrial waste. It is also a biodiversity conservation and tourism site. The basin supports large populations that depend on it for farming activities and fishing for subsistence, sale and export, and industrial development. Lake Victoria has numerous wetlands on the edges of its shore as well as open beaches and islands. The coastline ranges from papyrus swamps to rocky and sandy beaches. The wetlands are important for fish breeding and growth; for filtering river waters; the wetlands plants are

²⁰ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

²¹ *Ibid*

²² <https://aquadocs.org/bitstream/handle/1834/7140/ktf0088.pdf?sequence=2&isAllowed=y>

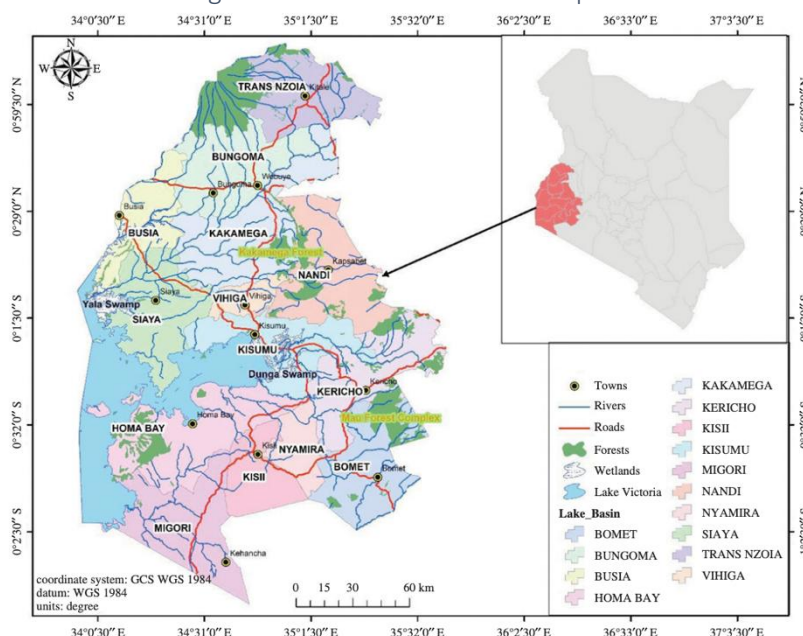
harvested for building materials by the riparian communities and are food for wildlife. The Kenyan side of LVB has a special designation as an economic zone owing to its immense contribution to socio-economic development, including water provision, fisheries, transport and tourism (Lake Region Economic Bloc, 2017). On the Kenyan side of the Lake, there are several administrative boundaries (figure 2) within the Lake's catchment which constitute the Lake Region Economic bloc (LREB) with several rivers passing through them and finally draining into Lake Victoria including (Figure 2): Nzoia, Yala, Nyando, Awach Sondu Miriu and the Mara River (Agdo , Reid, Crick, & Wendo, 2021)

34. Lake Victoria basin has experienced significant ecological changes since the 1930s induced by various drivers and pressures. The driving forces are both natural and anthropogenic, both affecting the environment directly or indirectly. These land degradation forces vary from place to place. Over the last 40-50 years, the lake and its basin have undergone enormous ecological changes linked to several interrelated problems such as rapid population growth, poverty, land degradation, declining agricultural productivity, and water quality. The major drivers of land-use change and subsequent loss of ecosystems service in the LREB have a strong human dimension. Drivers such as demographic changes; economic demand and trade; urbanization; agriculture; mining, deforestation; road construction; and impoundments often negatively alters the ecology of the basin. The lake's resources, especially its fish, are at risk due to human-caused pressures such overfishing, alien species invasion, biodiversity loss and increasing eutrophication due to release of sewage and ecological degradation happening around and in upstream water catchments. Approximately 46% of LREB land resources are fragile²³ and highly vulnerable to different forms of degradation such as deforestation, loss of wetlands, erosion, loss of soil fertility among others²⁴.

²³ susceptible to rapid degradation and whose restoration is difficult due to its natural characteristics and geographical location.

²⁴ Reich, P.F., Numbem, S.T., Almaraz, R.A. and Eswaran, H., 2001. Land resource stresses and desertification in Africa. In Bridges, E.M., Hannam, I.D., Oldeman, L.R., Pening, F.W.T., de Vries, S.J., Scherr, S.J. and Sompatpanit, S. (eds). Responses to Land Degradation. Proceedings of the 2nd International Conference on Land Degradation and Desertification, Khon Kaen, Thailand. New Delhi, Oxford University Press

Figure 2 Lake Victoria Basin map²⁵²⁶



Climate

35. According to the Köppen-Geiger Climate Classification, areas within the Lake Region Economic Bloc in Kenya prevalently have an equatorial, humid (Af) and subtropical (Cfa) wet climate year-round from westernmost to easternmost areas and equatorial monsoonal (Am) influences in northernmost and easternmost areas²⁷. Mean annual temperatures range between 20–28°C in the region, with highest temperatures in March and lowest between June–August²⁸. As a result of its latitude, the LREB experiences little temperature variation throughout the year. Maximum temperatures in the LREB reach 30°C in the areas closest to Lake Victoria at lower altitudes, oscillating between 25°C in the northern counties and 27.5°C in the southern counties towards the easternmost areas where altitudes are higher (Figure 3). The same occurs for average minimum temperatures in the LREB which oscillate between 10°C in northern and eastern areas and 12.5–15°C towards Lake Victoria, reaching up to 17.5°C.

36. Total annual rainfall is higher than the country's average²⁹, oscillating between 1200 to 1700 mm annually (Figure 4), with average monthly rainfall of 150mm/month during the rainy seasons, and spatial variations influenced by the topography characterized by undulating terrain and moisture inflow in proximity to the lake (e.g., Kisii and Nyamira in the southern areas, as well as Kakamega, Siaya, and Vihiga in the northern areas have higher annual precipitation). The region encompasses four main seasons (January–February - JF: warm dry season; March–May - MAM: warm wet season; June–September - JJAS: cool dry season; October–December - OND: short wet season)³⁰. However, while intra-annual (seasonal)

²⁵ Agol D, Reid H, Crick F, Wendo H. . 2021 Ecosystem-based adaptation in Lake Victoria Basin; synergies and trade-offs. R. Soc. Open Sci. 8: 201847. <https://doi.org/10.1098/rsos.201847>

²⁶ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

²⁷ Kotttek, M. et al. 2006. World Map of the Köppen-Geiger climate classification updated. Meteorologische Zeitschrift, Vol. 15, No. 3, 259–263 (June 2006) c by Gebrüder Borntraeger 2006

²⁸ World Bank Group. WBG. 2021. Climate Risk Profile: Kenya (2021): The World Bank Group. https://climateknowledgeportal.worldbank.org/sites/default/files/2021-05/15724-WB_Kenya%20Country%20Profile-WEB.pdf

²⁹ USAID. 2018. Climate Risk Profile. Kenya. Fact Sheet.

³⁰ K. Abebe Kiflie, Li Tao, "Opposite Effects of ENSO on the Rainfall over the Northern and Equatorial Great Horn of Africa and Possible Causes", Advances in Meteorology, vol. 2020, Article ID 9028523, 16 pages, 2020. <https://doi.org/10.1155/2020/9028523>

precipitation trends vary throughout the country, variations are lower within the LREB due to a more even rainfall distribution year-round. In fact, while the months of January and February are characterized by almost no precipitation in the country, precipitation reaches up to 150-200mm/season in the region. The MAM season provides between 500-700mm/season and maintains higher values throughout the year compared to the rest of the country. During MAM, rainfall reaches 200mm/month particularly close to the Lake Victoria Basin (LVB). In April, the highest monthly rainfall is registered throughout the region³¹. The long rainy season from March to May contributes to 30-50% of the total annual rainfall. The short rainy season (from October to December, OND) contributes to 300-400 mm/season, equivalent to 20% of the total annual rainfall. In addition, while at the country level there is a substantial reduction in seasonal precipitation during JJAS, this trend is not followed in the LREB where precipitation contributes around 30% to total annual precipitation (400-500mm/season)³².

37. Kenya's rainfall seasons are heavily influenced by the transboundary coupled ocean-atmospheric phenomena of:

- The Inter Tropical Convergence Zone (ITCZ) from the southernmost areas of the country which determines the four different seasons. In fact, the OND short rainy season and the MAM long rainy season occur during the period of the year in which the low atmospheric pressure belt caused by the Inter-Tropical Convergence Zone (ITCZ) migrates southwards and northwards respectively and are thus alternated by drier periods.
- Inter-annual rainfall variability during the OND short rainy season is due to large scale oceanic-atmospheric phenomena such as El Niño Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD) phenomenon which frequently coincides with ENSO events through non-stationary teleconnections, resulting in above-normal rainfall due to the warming of the western Indian Ocean and positive El Niño events, as well as drier conditions during negative IOD and La Niña events.
- High total annual precipitation in Kenya's LVB is also influenced by the warm and moist Congo airstream and westerlies which brings convective precipitation. Monsoons bring drier conditions around Lake Victoria.
- Inter-annual rainfall anomalies in East Africa and the Lake Victoria Basin are primarily associated with natural decadal variability influenced by the two coupled ocean-atmospheric phenomena of El Niño Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD)^{33, 34, 35}. Furthermore, El Niño and La Niña phenomena³⁶ have increased in intensity, thus exacerbating intra-annual and interannual rainfall variability in the region. Historical human-induced climate change is also a contributing factor of higher rainfall variability as a result of increasing zonal surface temperatures

³¹ World Bank Group. WBG. 2021. Climate Risk Profile: Kenya (2021): The World Bank Group.

³² Mwangi et al. 2020. Vulnerability of Kenya's Water Towers to Future Climate Change: An Assessment to Inform Decision Making in Watershed Management. *American Journal of Climate Change*. 9(3). DOI: 10.4236/ajcc.2020.93020

³³ Lucia Mumo, Jinhua Yu, Brian Ayugi. 2019. Evaluation of spatiotemporal variability of rainfall over Kenya from 1979 to 2017. *Journal of Atmospheric and Solar-Terrestrial Physics*. Volume 194, 105097, ISSN 1364-6826. <https://doi.org/10.1016/j.jastp.2019.105097>.

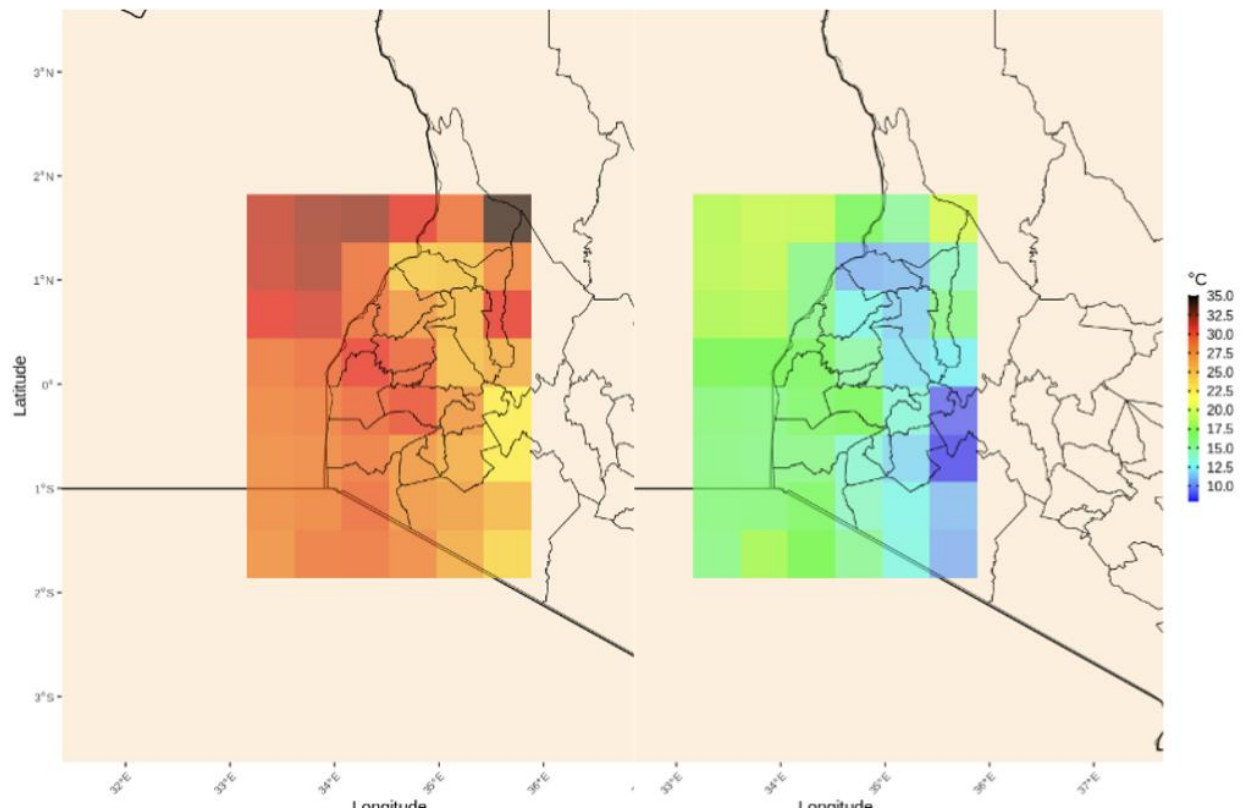
³⁴ Lucia Mumo, Jinhua Yu. 2020. Gauging the performance of CMIP5 historical simulation in reproducing observed gauge rainfall over Kenya, *Atmospheric Research*, Volume 236, 104808, ISSN 0169-8095, <https://doi.org/10.1016/j.atmosres.2019.104808>.

³⁵ King, J. A., & Washington, R. (2021). Future changes in the Indian Ocean Walker Circulation and links to Kenyan rainfall. *Journal of Geophysical Research: Atmospheres*, 126, e2021JD034585. <https://doi.org/10.1029/2021JD034585>

³⁶ Rojas. 2020. Agricultural extreme drought assessment at global level using the FAO-Agricultural Stress Index System (ASIS). *Weather and Climate Extremes*. 27, 100184. <https://www.sciencedirect.com/science/article/pii/S2212094718300999>

and consequent enhanced hydrological cycle, consequently increasing the drier and wetter conditions as influenced by ENSO and IOD phenomena in East Africa^{37, 38, 39}.

Figure 3 Average annual maximum (left) and minimum (right) temperature in the Lake Region Economic Bloc (1981-2010) using the bias-corrected W5E5 reanalysis dataset. Figures are produced with FAO CAVA Analytics⁴⁰



Source: Authors' own elaboration.

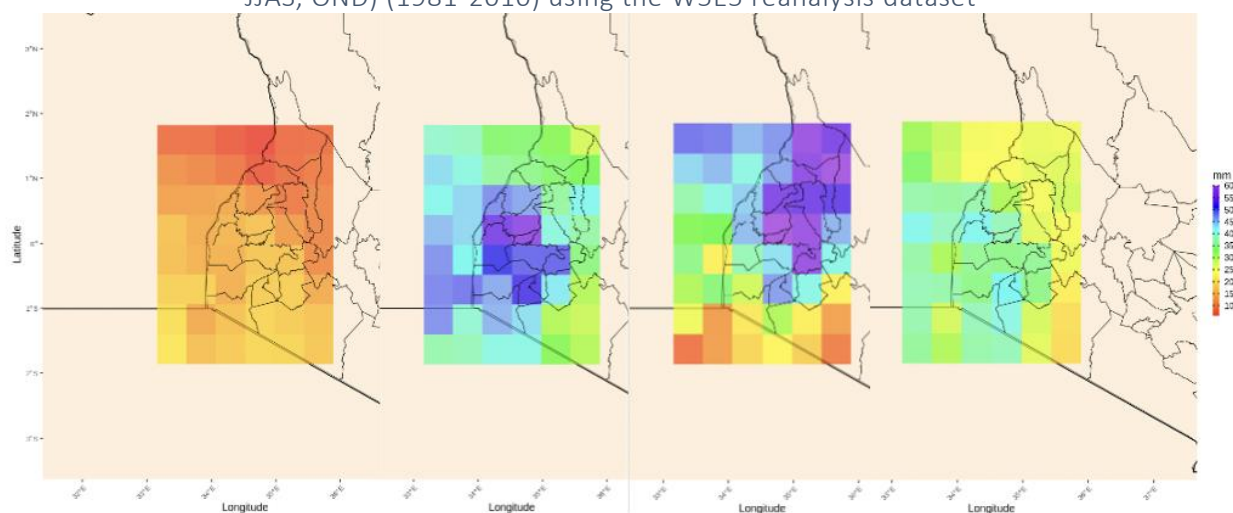
³⁷ Wainwright, C.M., Marsham, J.H., Keane, R.J. *et al.* 'Eastern African Paradox' rainfall decline due to shorter not less intense Long Rains. *npj Clim Atmos Sci* **2**, 34 (2019). <https://doi.org/10.1038/s41612-019-0091-7>

³⁸ Endris, H.S., Lennard, C., Hewitson, B. *et al.* Future changes in rainfall associated with ENSO, IOD and changes in the mean state over Eastern Africa. *Clim Dyn* **52**, 2029–2053 (2019). <https://doi.org/10.1007/s00382-018-4239-7>

³⁹ Arias, P.A. *et al.* 2021. Technical Summary. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 33–144. doi:10.1017/9781009157896.002.

⁴⁰ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Figure 4 Total seasonal precipitation in the Lake region Economic Bloc (from left to right: JF, MAM, JJAS, OND) (1981-2010) using the W5E5 reanalysis dataset⁴¹



Source: Authors' own elaboration.

Agroclimatic conditions

38. The different geographical, mostly topography, and edaphic features within the LREB result in different agricultural conditions⁴²:

a) Northern counties:

- **Trans Nzoia** county has a cool and wet climate with temperatures oscillating between 12°C and 26°C and mean annual precipitation of 1267mm. Altitudes reach 1800-2000m above sea level (masl), being close to Mt. Elgon and the Cherangani hills.
- In **Bungoma** the growing season starts in late February-early March. Its altitudes range between 1200-4300m metres above sea level (masl). Annual precipitation reaches 1400-1500mm/year and temperatures vary between 0°C and 32°C. Vegetables and fruit trees are primarily produced, as well as coffee as key cash crops, and livestock.
- **Busia** county has a mean temperature between 21-27°C and total annual rainfall of 750-2000mm with high inter-regional variation, where southernmost areas receive less rainfall. Altitudes oscillate between 1100masl around Lake Victoria and 1500masl in northern areas. Local vegetables are among the most popular crops grown in the lower highlands and upper midlands.
- **Kakamega** county has a cool and wet climate with average temperatures around 21°C and evenly distributed total annual rainfall between 1250-1750mm. Poultry, vegetables, dairy farming is practiced in this county.
- **Nandi** county has erratic rainfall and most of the arable land is rainfed. Tea and coffee cultivation is suitable in the highlands up to 2000masl where rainfall reaches up to 1500mm.

b) Central/easternmost counties:

- **Siaya** County has an annual precipitation of 1500mm and average temperatures of 21°C, and altitudes of 1300-1500masl. 80% of the land is arable, primarily used for staple food crops, including cowpeas and sweet potatoes. The land is moderately fertile

⁴¹ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

⁴² CGIAR-CIAT. Ministry of Agriculture, Livestock, Fisheries and Cooperatives. 2022. Kenya County Climate Risk Profiles. <https://ccaafs.cgiar.org/resources/publications/kenya-county-climate-risk-profiles>

- **Vihiga** County is primarily humid and suitable to crop (bananas, sweet potatoes, coffee and tea) and livestock production due to its high altitudes reaching 1500-1600masl.
- **Kisumu** County, closer to Lake Victoria and with lower altitudes (around 1100masl), has an annual rainfall around 1362mm and annual temperatures ranging between 17°C and 30°C. In addition, Kisumu is characterized by vertisols and planosols which are more prone to flooding than the ferrosols which instead dominate Trans-Nzoia's soils (Nyberg et al., 202028).
- In **Kericho** County, annual rainfall reaches 2125mm in the central parts, particularly suitable to tea production, and 1400mm in the rest of the county, with rainfall peaking between April and June, and between October and December. Kericho's agroecological zones are particularly favourable to both cash and staple food production, such as tea and coffee, dairy farming, as well as horticulture, with altitudes ranging from 1300masl in the western side to 2500masl in the eastern side.

c) Southern/easternmost counties

- **Homa Bay** primarily borders the Lake Victoria. Agriculture activities alongside fisheries are predominant within this county, such as tea and coffee production in upper midlands at 1500masl, and cowpeas, sweet potatoes, vegetable production and livestock in lower midlands at 1100m asl. Annual rainfall is lower than the region's average, around 700-800mm, whereas temperatures range from 17°C to 35°C.
- **Migori** county has annual rainfall of 700-1800mm and average temperatures from 24°C to 31°C, as well as high humidity. The agricultural sector is mainly composed of livestock and milk, and poultry producers, as well as a wide variety of fruits and vegetables including cowpeas, sweet potatoes, and bananas. Altitudes range from 1100masl to 1500masl.
- In **Kisii** county, altitudes reach 1500-1200masl and 75% of land is arable and made of volcanic soils, rich in macronutrients and suitable for vegetable farming. Rainfall reaches 1500mm annually, while temperatures oscillate between 18°C and 25°C.
- In **Nyamira**, rainfall is well-distributed year-round and across the county, with a long rainy season starting in February and lasting until June-July, and the short rainy season anticipating in August and lasting until December. Average temperatures reach 19-20°C. Altitudes oscillate between 1250 and 2100masl and, thus, are highly suitable for rainfed tea, coffee, avocado, and banana production among the high food commodities, as well as livestock, sweet potatoes, and vegetable production.
- **Bomet** county has an annual rainfall ranging between 1000-1400mm, with southern parts receiving less rainfall, and average monthly temperatures between 16-24°C. Bomet tea production is suitable both in higher altitudes in the northeast part of the county at 2000-2300m asl, as well as in central areas of the county at 1800masl. Dairy cow breeds (Friesian and Ayrshire) and poultry production is suitable along higher altitudes and in the northeast and southernmost parts. Coffee production is also suitable in the middle parts, whereas fruits and vegetables are suitable all over the county. At the same time, there is little diversification of production and agriculture is mostly rainfed with a paltry (0.8%) of the farmers using irrigation facilities.

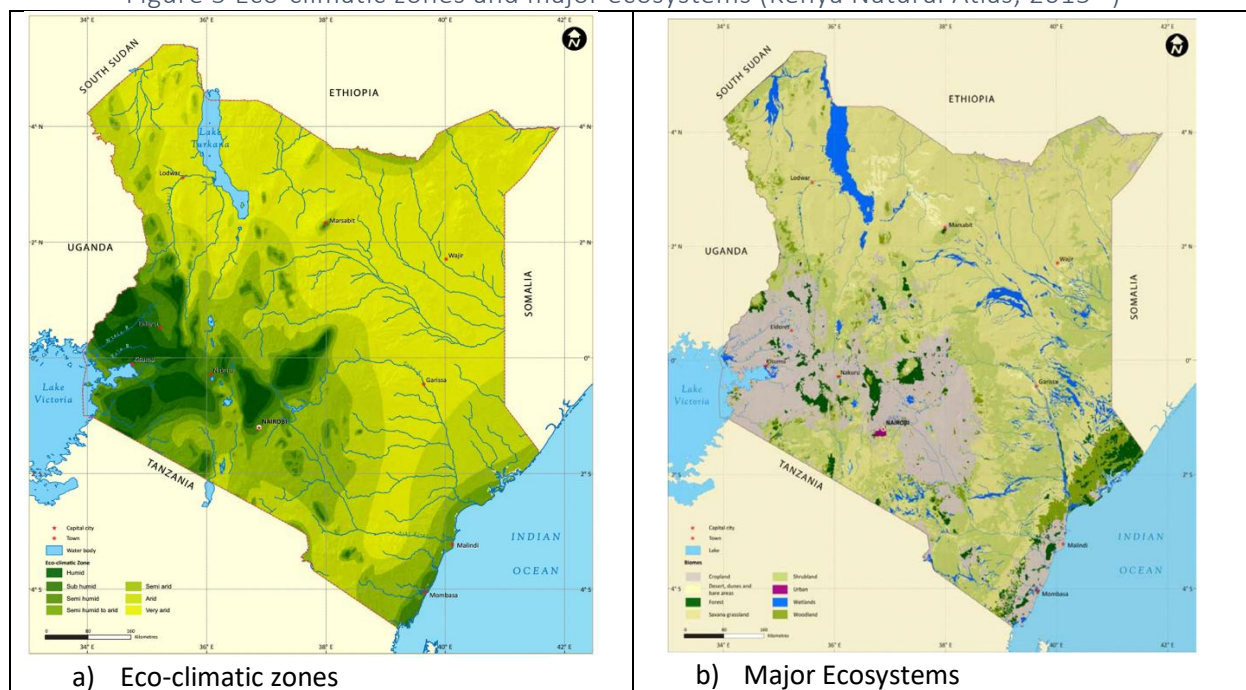
Ecosystems⁴³

39. Kenya has a unique diversity of ecosystems, ranging from mountains, forests, rangelands, arid lands, croplands, and urban areas to marine and inland waters. The country's economy depends on a healthy environment and the sustainable use of natural resources, and this dependency is increasingly acute in the face of climate change (Government of the Republic of Kenya, 2020). Land use change stemming from rural-urban migration and unsustainable development leads to degradation of both private and common

⁴³ Government of the Republic of Kenya. 2020. Sixth National Report to the Convention on Biological Diversity. Ministry of Environment and Forestry (MEF). Available at: <https://www.cbd.int/doc/nr/nr-06/ke-nr-06-en.pdf>

property resources such as fisheries, forests, rivers and rangelands. Coupled with the direct over utilization of wildlife through poaching, bush meat, and the illegal wildlife trade, the resulting habitat degradation and fragmentation are threatening the productivity and resilience of ecosystems and the diversity and viability of biodiversity across the country. Ecosystem degradation and biodiversity loss has wide ranging impacts including, increased vulnerability to climate change and natural disasters, declines in productivity (e.g. fisheries, agriculture, livestock, etc.), and precipitous declines in iconic species such as elephant, rhino, giraffe, pangolin, and dugong (Government of the Republic of Kenya, 2020). According to the Ministry of Environment and Forest (MEF, 2020), in Kenya, the most distinctive ecosystems—the forests, woodlands, shrublands, grasslands, deserts, wetlands, lakes and rivers, montane, afro-alpine and marine. Within the area of influence of the Project, the prevailing eco-climatic zone is humid, sub humid and semi humid; and the main ecosystems found are cropland, forest, woodland and wetlands.

Figure 5 Eco-climatic zones and major ecosystems (Kenya Natural Atlas, 2015⁴⁴)⁴⁵



Ecoregions

40. According to Kenya National Biodiversity Threat Assessment Report (2020), over 50% of the global coverage of four ecoregions are represented within Kenya. Dominated by Northern Acacia-Commiphora bushlands and thickets (Figure 5), Kenya hosts 81.4% (264,178 km²) of the total global coverage and over 95% (95,603 km²) of the entire global coverage of Masai xeric grassland and shrubland. In the area of influence of the project main ecoregions are: Victoria Basin Forest-Savanna mosaic; Southern Acacia-Commiphora bushlands and thickets and East Africa Mountain Forest (Figure 1).

⁴⁴https://www.researchgate.net/publication/312046077_Kenya's_Natural_Capital_A_Biodiversity_Atlas#:~:text=Abstract,the%20natural%20wealth%20of%20Kenya.

⁴⁵ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Figure 6 Global terrestrial ecoregions represented in Kenya⁴⁶

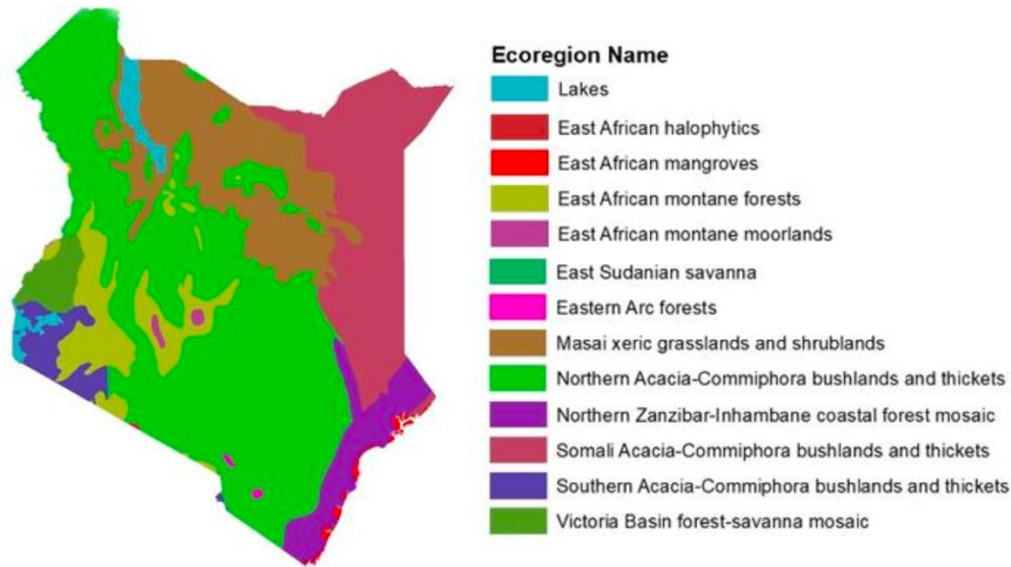
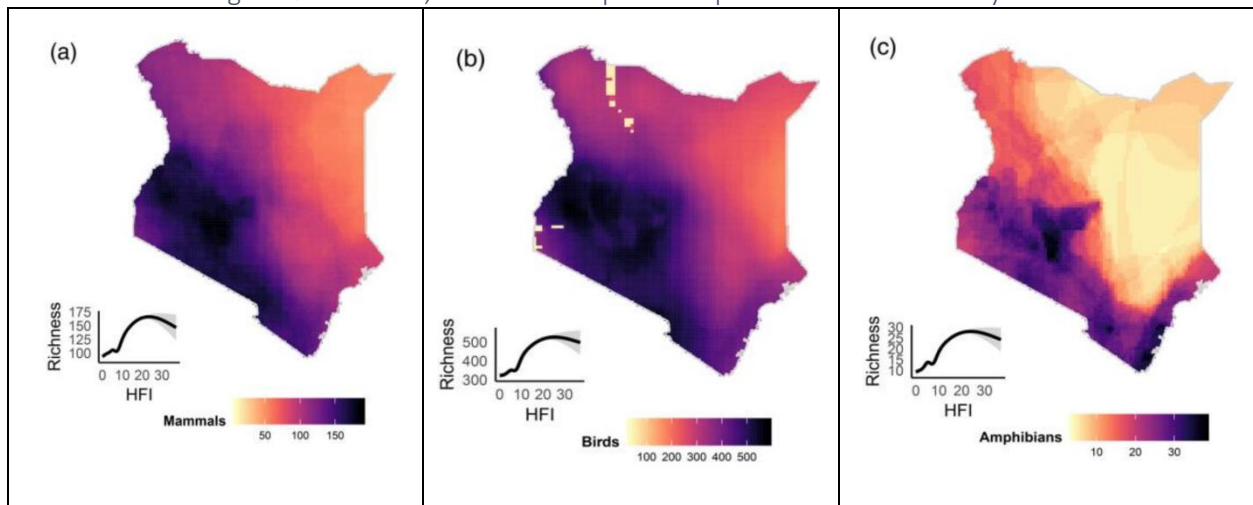


Figure 7 Mammal, birds and amphibian species richness in Kenya^{47,48}



41. Several factors have led to the destruction of native and endemic biota specific to the Lake Victoria basin. Within the basin, deforestation and land-use change are the main human activities that threaten water resources Soesbergen et.al (2018). Land-use change, in particular the conversion of natural land to agriculture, typically has a profound impact on freshwater ecosystems. As highlighted in the research conducted by Van Soesbergen et.al (2018), there is multiple evidence on how Land-use change, in particular the conversion of natural land to agriculture, have a profound impact on freshwater ecosystems: changes the composition and quantities of material load in rivers and streams; eutrophication; shifts in food chains; outbreaks of invasive species, among others. In Lake Victoria

⁴⁶ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

⁴⁷ <https://conbio.onlinelibrary.wiley.com/doi/pdf/10.1111/csp2.136>

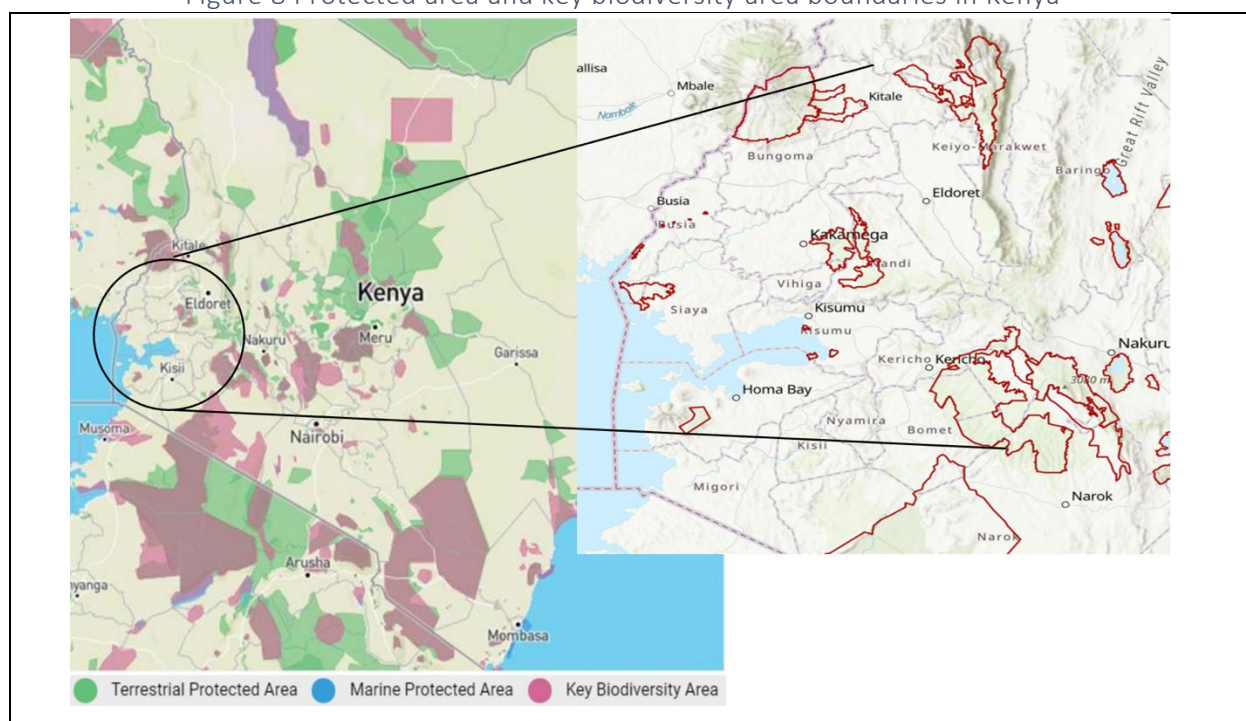
⁴⁸ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

eutrophication is severe, with agriculture estimated to be responsible for 22% of nitrogen and more than 50% of phosphorus loading⁴⁹. The intensification of agriculture and the increased use of pesticides have also led to the contamination of water with pesticide residues.

Key biodiversity areas in Lake Victoria Basin

42. Key Biodiversity Areas (KBAs) are sites that significantly contribute to the global persistence of biodiversity in terrestrial, freshwater, and marine realms. Kenya established a Key Biodiversity Area (KBA) National Coordination Group which brings together a wide range of stakeholders (government agencies, NGOs, academia and wider society), to oversee and coordinates the identification, delineation, monitoring and promotion of conservation of KBAs. KBAs include both Important Bird Areas (IBAs) and Alliance for Zero Extinction Sites (AZEs). According to Kenya National Biodiversity Threat Assessment (IUCN-BIODEV2030, 2020), Kenya has 73 identified KBA sites of which 67 are IBAs and 6 are AZEs, with a further 47 potential KBA sites (Figure 3). Since 1980, there has been a 7.5% increase in the coverage of KBAs within PAs in Kenya (IBAT, 2020). IUCN-BIODEV2030 report indicates that, between 2004 and 2018, the 'State' (which measures bird population trends, and extent and quality of habitat within KBAs), remained stable.

Figure 8 Protected area and key biodiversity area boundaries in Kenya⁵⁰



Source: IBAT 2020⁵¹ and KBA Partnership 2023

Water resource profile

43. Water resources are stressed and unevenly distributed throughout Kenya, with approximately 85% of the country classified as arid or semi-arid; furthermore, approximately 33% of Kenya's water resources originate outside of the country (USAID and SWP, 2021). Agricultural development and widespread

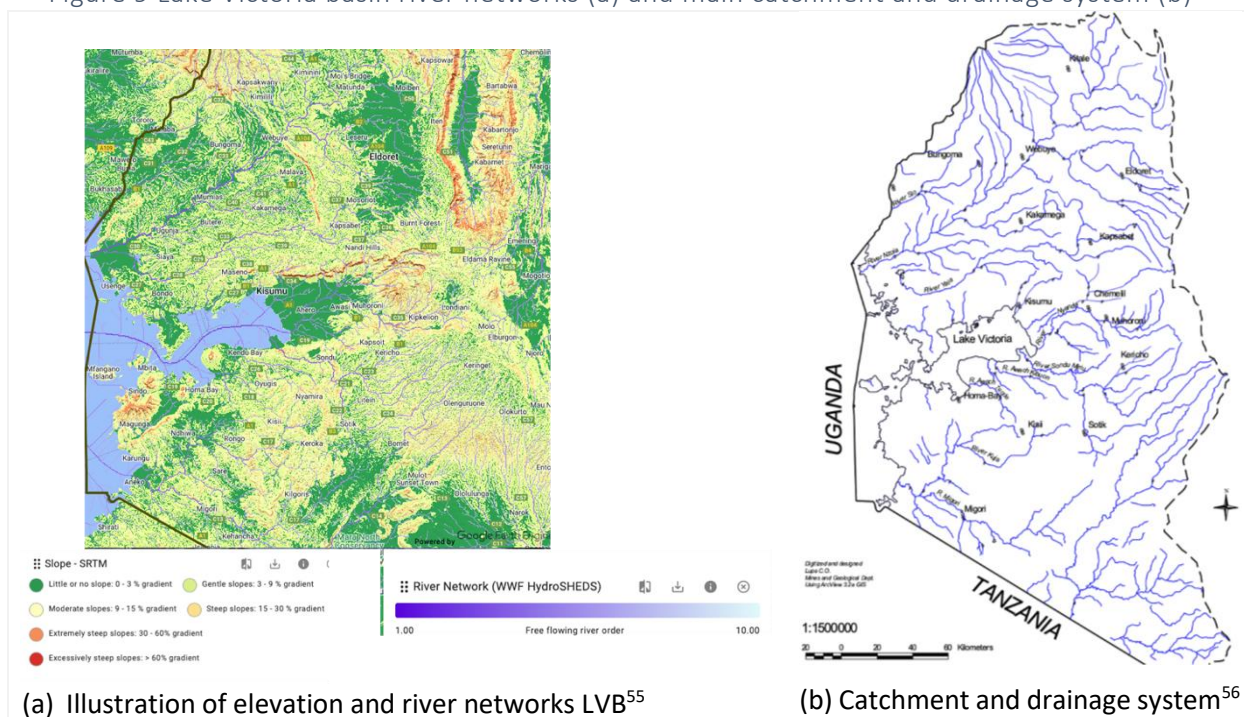
⁴⁹ (Soesbergen, Sassen, Kimsey, & Samantha Hill, 2018)

⁵⁰ IBAT 2020 and KBA Partnership 2023

⁵¹ https://www.ibat-alliance.org/country_profiles/KEN

deforestation in the central highlands contribute to increased siltation, sedimentation, turbidity, and runoff into downstream watercourses and reduce recharge needed to sustain base flow rates of rivers, particularly in the Lake Victoria Basin, which accounts for more than half of Kenya's freshwater. Kenya's LVB is traversed by numerous rivers such as Nzoia, Yala, Nyando, Sio, Awach, Sondu, Miriu and the Mara rivers, and by important forested water catchment areas of Mau Forest Complex, Kakamega, Mau, Elgon and Nandi and Cherangany Hills. The presence of wetlands is fundamental to maintain a stable climate and quality of air by storing carbon and filtering pollutants, whereas the forests are important sources of ecosystem services of biodiversity protection, soil erosion control, and provide communities with fuelwood, timber, fruits and vegetables, and fodder for livestock^{52, 53}.

Figure 9 Lake Victoria basin river networks (a) and main catchment and drainage system (b)⁵⁴



Water catchments areas (water towers)

44. The lake serves as an important reservoir for the region and for the larger Nile Basin. The Kenyan catchment area within the Lake Victoria Basin has a general elevation of about 1100-1800 m above sea level. The main rivers and their discharge percentages are: Nzoia - 39%, Gucha-Migori - 20%, Sondu - 14%, Yala - 13%, Nyando - 6% and Sio-4%. The remaining 4% comes from various streams such as Awach Seme, Awach Kibos, Awach Kano (clustered as North Awach) and Awach Tende and Awach Kibuon (clustered as South Awach)⁵⁷. The rivers generally originate from the highlands and their waters get polluted due to discharge of domestic and industrial effluents from urban centers and industries scattered within their catchments, as well as by soil erosion and agrochemicals from land use practices in the catchments. The

⁵² Agol D, Reid H, Crick F, Wendo H. 2021 Ecosystem-based adaptation in Lake Victoria Basin; synergies and trade-offs. R. Soc. Open Sci. 8: 201847. <https://doi.org/10.1098/rsos.201847>

⁵³ Mwangi et al. 2020. Vulnerability of Kenya's Water Towers to Future Climate Change: An Assessment to Inform Decision Making in Watershed Management. American Journal of Climate Change. 9(3).

⁵⁴ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

⁵⁵ Sourced from earthmap.org

⁵⁶ (Okungu et.al., 2005)

⁵⁷ <http://hdl.handle.net/1834/7140>

effluent from major urban centers such as Kisumu, Eldoret, Kakamega, Kitale, Homa Bay, Muhoroni, Kisii and Migori comprise both domestic and industrial wastes. The catchment mainly has agro-based industries and therefore the pollutants are mainly organic in nature. The drainage system of the Lake Victoria Basin is mainly determined and influenced by the uplifted mountains and highlands of the Great Eastern Rift Valley running approximately north to south and forming the eastern boundary of the catchment. From the flanks of the rift valley, several rivers flow westwards to Lake Victoria. The northern drainage pattern is mainly controlled by volcanic Mount Elgon, and several streams originate from here and flow southward.

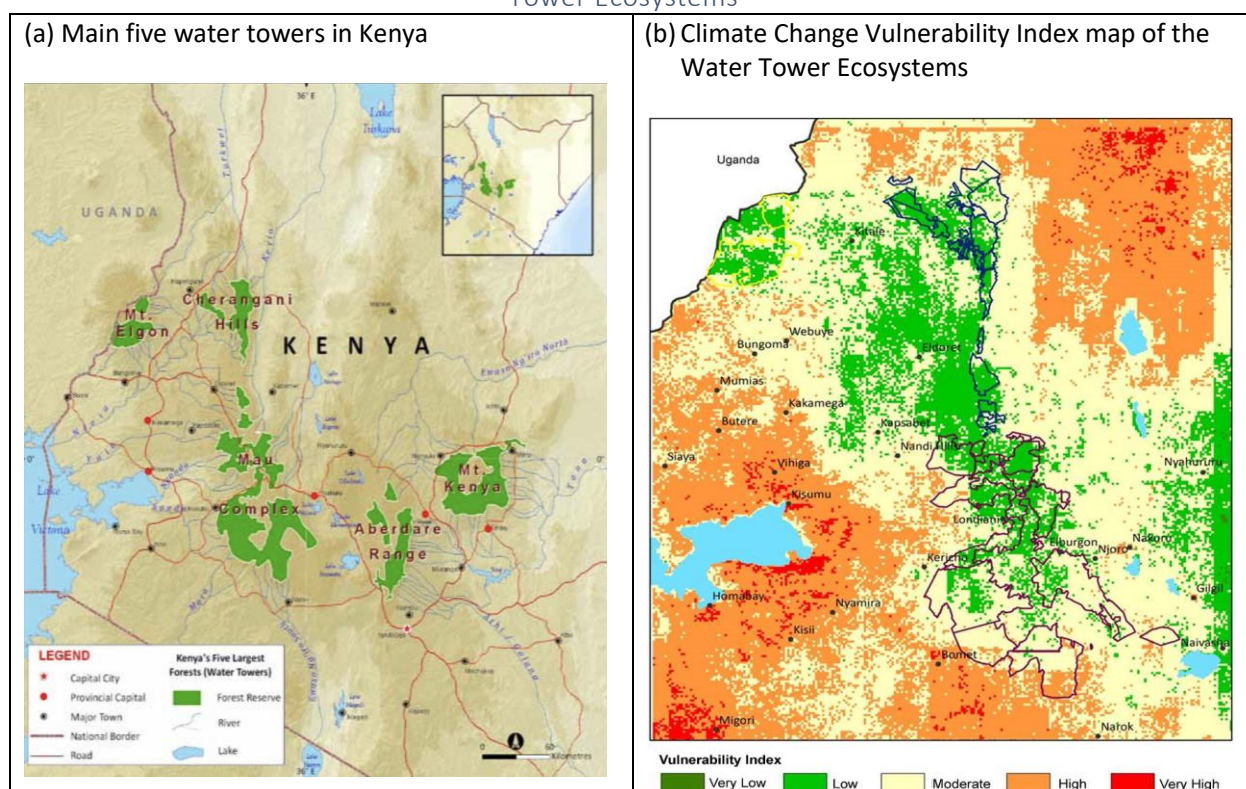
45. The rapid loss of forest cover in Kenya's major upper water catchment areas referred to as 'water towers' has had a negative effect on the country's major wetlands. There are various catchment areas in the LREB which are significant sources of rivers that flow into the lake⁵⁸ and support multiple economic activities including agriculture, fisheries, and tourism. The main water towers are Mount Elgon, Cherangani Hills, Aberdare Mountain Range, Mount Kenya and Mau Forest Complex (Figure 10). Three of the five major water towers in Kenya namely Mau Forest Complex, Cherangany Hills, and Mt. Elgon are found within the LREB and are the main sources of many rivers feeding into Lake Victoria. The Kenya Water Tower Agency provides the following description of this main water tower⁵⁹ :

- **Mau Forest Complex Water Tower** is the most important Water Tower in Kenya that supports millions of livelihoods nationally, regionally as well as internationally. It covers an area of 455,000 hectares and is as large as the forests of Mt. Kenya and the Aberdare Range combined. The Water Tower comprises 22 forest blocks stretching across 6 counties namely: Baringo, Bomet, Kericho, Nakuru, Narok and Uasin Gishu. This Water Tower is a major catchment for 13 major rivers namely Amalo, Ewaso-Ng'iro, Makalia, Mara, Molo, Mumberes, Naishi, Nderit, Njoro, Nzoia, Nyando, Sondu and Yala. The rivers feed into five major lakes in Kenya and across the borders. These are: Lake Baringo, Lake Nakuru, Lake Natron, Lake Turkana and Lake Victoria.
- **Cherangani Hills Water Tower** covers an area of 120,841ha with 67% in Elgeyo-Marakwet, 31% in West Pokot and the rest in Trans-Nzoia all being counties found in the Rift Valley region. A 5km buffer zone around the forest has 244,404 ha adding up to 365,245 ha for the water tower. The tower consists of 12 protected forest blocks that include Kapoiet Block in Trans-Nzoia County, Kapkanyar and Lelan blocks in West Pokot County and Cheboyit, Chemurkoi, Embobut, Kaisungor, Kerrer, Kipkunjur, Kiptaberr, Sogoio and Toropket in Elgeyo Marakwet. The Cherangani Hills water tower is an important watershed area between Lake Victoria and Lake Turkana basins. The water tower hosts critical headwaters for Nzoia, Turkwel (also known as Suam) and Kerio rivers. These rivers are important as Nzoia drains to the trans-boundary Lake Victoria which is the source of River Nile while Turkwel and Kerio drain into Lake Turkana.
- **Mt. Elgon Water Tower** is a key water catchment for the Rift valley drainage system. The water tower lies between Kenya and Uganda and is named after the Elgeyo tribe, who once lived in huge caves on the southern side of the mountain. The water tower covers 72,874 ha part of which is gazetted as a National Park, and another part as a Forest Reserve. The Kenyan side of the water tower falls within Bungoma and Trans-Nzoia Counties. The water tower is a catchment area for the drainage systems of Lakes Victoria and Turkana in Kenya and Kyoga in Uganda. It supports a rich biodiversity of flora and fauna and is a habitat to 37 globally threatened faunal species. The key threats facing Mt. Elgon water tower are uncontrolled exploitation of endangered tree species; and limited awareness on importance of conservation and protection of the water tower.

⁵⁸ Lake Victoria Basin Commission (2017). Lake Victoria basin-atlas of our changing environment. Kisumu, Kenya: GRID-Arendal. See <https://www.grida.no/publications/328>

⁵⁹ Kenya Water Tower Agency, available at: <https://watertowers.go.ke/water-towers/>

Figure 10 Main Kenya Water tower and ⁶⁰Climate Change Vulnerability Index map of the Water Tower Ecosystems⁶¹



Wetlands

46. Wetlands provide critical ecosystem services to a large number of communities in the rural areas and are indispensable to the very survival, health and welfare of human beings and biodiversity. The Ramsar classification of wetland types contains three broad categories: inland; marine and coastal; and human made. According to Kenya's Wetland Atlas, wetlands occupy approximately 3-4 per cent of Kenya's land area (Figure 11a): inland wetland 2,641,690 ha and Marine and costal 96,100 ha. Due to its diverse s diverse climate and topography, the country is home to six wetland types: riverine; lacustrine; palustrine; estuarine; marine; and constructed wetlands⁶² (human-made). About 75 percent of Lake Victoria's wetlands area has been affected significantly by human activity with 13 percent being severely damaged⁶³. In the last fifty years, wetlands in the LVB have been facing serious problems of degradation and their ability to continue providing valuable ecological services is threatened⁶⁴.

⁶⁰ Kenya's Wetland Atlas.

⁶¹ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

⁶² Kenya's human-made wetlands comprise a number of disparate artificial structures: water impoundment for irrigation; major dams; salt pans; sewage farms as well as fish and shrimp ponds

⁶³ Kayombo, Sixtus, and Sven Erik Jorgensen (2006). Lake Victoria: Experience and Lessons Learned Brief. In Lake Basin Management Initiative: Experience and Lessons Learned Briefs. International Lake Environment Committee Foundation, Kusatsu, Japan, pp. 431-446. Available from http://www.worldlakes.org/uploads/27_Lake_Victoria_27February2006.pdf

⁶⁴ Kairu, J. K. (2001). Wetland use and impact of Lake Victoria, Kenya region. Lakes & Reservoirs: Research and Management 6: 117-125.

Figure 11 (a) Location of natural wetlands in Kenya⁶⁵⁶⁶



47. From a geographic perspective wetlands can be: i) transboundary wetlands which by their very nature straddle two or more international boundaries; and ii) internal wetlands, those that occur within Kenya. The following section provides description of main wetlands within the Lake Victoria Basin (MEMR, 2012):

- **Lake Victoria is among Kenya's transboundary wetland.** Its significance is underlined by the fact that, although it covers only about 8 per cent of Kenya's surface area, it accounts for over 54 per cent of the country's freshwater resources. The main rivers in Kenya that feed the lake are Sio, Nzoia, Yala, Nyando, Sondu-Miriu and Awach. Lake Victoria is itself surrounded by an extensive network of wetlands that perform crucial ecological functions and support an array of aquatic biodiversity. The major lakeshore wetlands in Kenya include the Sio, Yala, Nzoia, Sondu/Miriu, Nyando, Kabonyo, Kuja, and Kenga/Kibos and Nyam. The wetlands are primarily swamp systems characterized by rooted herbaceous and grasslike plants largely consisting of papyrus (*Cyperus papyrus*), reeds (*Phragmites* sp.) and hippo grass (*Vossia cuspidata*). These swamp systems are complemented by shrubland systems dominated by perennially green shrubby vegetation. Lake Victoria continually confront a series of environmental challenges such as fluctuating water levels, worsening water quality, land cover and land use changes and invasive alien species, sedimentation and siltation, among others.

⁶⁵ Kenya's Wetland Atlas.

⁶⁶ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

- **Sio-Siteko Wetland System (transboundary wetland):** Spans the Kenya-Uganda border. It traverses Busia and Samia Districts in both Kenya and Uganda and is part of the wider Sio-Malaba-Malakisi catchment. The wetland consists of several interconnected secondary and tertiary wetland subsystems that drain into Lake Victoria. The Sio River originates from the foothills of the Kenyan segment of Mount Elgon and has a total length and catchment area of about 85 km and 1 338 sq. km. respectively (Kenyas Wetland Atlas, 2012). According to this same source, the Sio River catchment and its associated wetlands are a rich fauna and flora repository and provide a habitat for 206 plants, 29 fish, 25 mammal, eight reptile and several invertebrate species. The wetland is also an Important Bird Area (IBA) as more than 300 bird species including the globally threatened Papyrus Gonolek (*Laniarius mufumbiri*) and Pallid Harrier (*Circus macrourus*) have been recorded there (Bird Life International 2008). Some of the mammals that commonly occur in the area include the Vervet monkey, Otter, Sitatunga, hippo and water mongoose with the implication that the wetlands have a considerable ecotourism potential. Canal construction, over-abstraction of water and sand harvesting in the Sio-Siteko wetlands as well as poor agricultural husbandry and other unsustainable human activities have adversely impacted the Sio-Siteko wetland system. Increasing human pressure is leading to the intensification of land use and to overgrazing, overfishing, sand harvesting, brickmaking and the drainage of the Sio-Siteko wetlands, mostly for agriculture. Conflict over the Sio-Siteko wetland system's resources is rife between different resource-use interests such as crop farmers and herdsman, water users and herdsman, plant harvesters and fishermen, grass harvesters and clay miners, and herbalists and crop farmers. And, given that this is a transboundary wetland complex, these conflicts often spill over to Kenya and to Uganda as well.

48. Hydrological areas (water basins). Kenya's Water Resources Management Authority (WRMA), the lead agency in water resources management and is responsible for catchment and sub-catchment planning, management, protection and conservation of water resources. WRMA has subdivided the country's hydrological areas into six major basins: Lake Victoria North; Lake Victoria South; Rift Valley; Ewaso Ng'iro; Tana and Athi (Figure 12 a). Within the project area of influence, the two main basins are Lake Victoria North basin and Lake Victoria South basin (Figure 12 b and c). The main characteristics of Lake Victoria North and South basin are described in Table 2.

Figure 12 Lake Victoria main water basins⁶⁷



Source: Kenya's Water Resources Management Authority (WRMA)

Table 2 Characteristics of Lake Victoria North and South basins

Basin and Basin area (sq. km.)	Major wetlands	Major land /wetlands uses	Pressures	Impacts
a) Lake Victoria North 32 384 sq. km.	<ul style="list-style-type: none"> - Lake Victoria - River Yala - Yala Swamp - Lake Kanyaboli - River Nzoia - Sio-Siteko 	<ul style="list-style-type: none"> - Fishing - Large scale farming - Mining - Harvesting papyrus reeds - Brick making - Forestry - Conservation- Kakamega forest - Tourism and recreation - Irrigation - Power production - Artisanal products 	<ul style="list-style-type: none"> - Inappropriate land use and overutilization - Conversion of wetlands to agricultural land - Unsustainable exploitation of resources - Land subdivision and fragmentation 	<ul style="list-style-type: none"> - Pollution - Loss of land cover - Invasive species - Reduced water quantity and quality - Loss of biodiversity - Flooding - Reduced fisheries - Pollution - Loss of land cover - Invasive species - Reduced water quantity and quality - Loss of biodiversity - Flooding - Reduced fisheries
b) Lake Victoria South 18 613 sq. km.	<ul style="list-style-type: none"> - Lake Victoria - River Nyando - Migori River - Lake Simbi - River Sondu-Mir 	<ul style="list-style-type: none"> - Fishing - Large scale farming - Mining - Harvesting papyrus reeds - Brick making - Pastoralism - Forestry - Conservation- Ruma, Ndere island - Energy - Water supply - Recreation - Artisanal products 	<ul style="list-style-type: none"> - Inappropriate land use and overutilization - Conversion of wetlands to agricultural land - Unsustainable exploitation of resources - Land subdivision and fragmentation 	<ul style="list-style-type: none"> - Loss of biodiversity - Flooding - Reduced fisheries

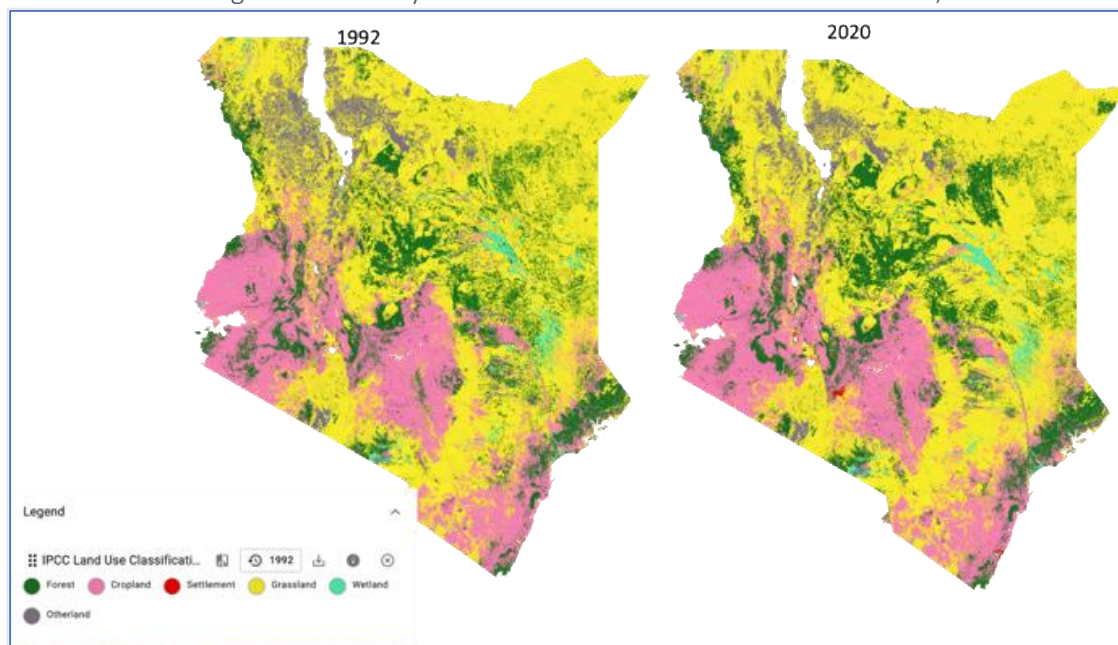
Source: Kenya's Wetland Atlas, available at: https://na.unep.net/atlas/datlases/sites/default/files/Kenya_Wetlands.pdf

⁶⁷ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

49. The main threats to wetlands are reclamation for agriculture, overgrazing, human settlement and encroachment, siltation, pollution (mainly from agriculture and industrial sources) introduction of exotic species such as blue gum trees (*Eucalyptus* spp.) and overharvesting of water dependent plants. Unsustainable exploitation of papyrus and this has led to complete loss of some wetlands and causing cascading negative impacts on wide range of biodiversity in these important ecosystems⁶⁸. Changing land use and intensity in the wetland has compromised their integrity, resulting into sedimentation, flooding, loss of biodiversity, poor water quality, eutrophication and loss of fish (Figure 13).

50. **Wetlands and agriculture:** Wetlands support commercial and subsistence agriculture through natural flooding, flood-recession agriculture, and irrigation. Farmers across the country are currently using lacustrine and riverine wetlands to ensure food security. However, some farming practices pose a threat to these fragile ecosystems as they lead to over abstraction of the wetland waters, encourage use of poor irrigation methods such as overhead sprinklers and even encroach on wetlands. These negative activities have degraded wetlands and jeopardized their traditional roles of purifying water, retaining sediments as well as recharging water tables and aquifers. According with Kenya's Wetland Atlas, the wise and sustainable use of wetlands, including conservation and the use of proper irrigation and land use practices, appropriate technologies, extension services and market-diversification and value addition would help to secure the livelihoods of those employed in the sector and increase Kenya's gross domestic product (GDP).

Figure 13 Side by Side views of Land use in 1992 and 2020, LREB⁶⁹⁷⁰



Soil in LVB region

51. The varied topography and geology of Kenya, modified by hydrology, climate, vegetation and animal and human impact, creates a diversity of soils that in turn influences the biological properties of ecosystems (Figure 14a). According to Rao et.al (2015) Western Kenya has volcanic and basement rocks

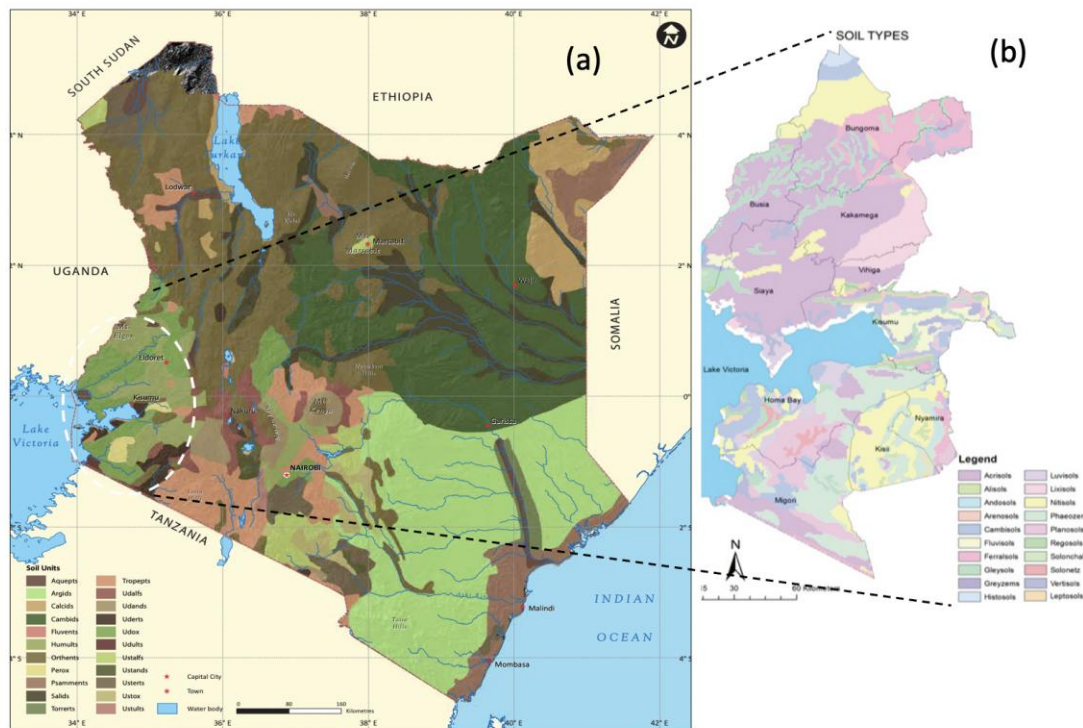
⁶⁸ Morrison E.H.J., Upton C, Odhiambo-K'oyoo K and Harper D. M. (2012). Managing the natural capital of papyrus within riparian zones of Lake Victoria, Kenya. *Hydrobiologia*. 692 (1): 5-17, DOI 10.1007/s10750-011-0839-5

⁶⁹ Map created from earthmap.org, retrieved January 2023

⁷⁰ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

and the soils are majorly red clay (Figure 14b). Areas with sedimentary rocks occur in the lowlands at an altitude ranging from 1000 m and have loamy sandy soils. Soils here vary greatly according to the prevailing parent material. In higher regions, soils are dark red clays, which are fertile and well drained. In the Kavirondo Gulf, soils are sandy loam formed from sedimentary rocks. Alluvial deposits of eroded material from uplands are common along flood plains of rivers such as Nyando, Yala, Nzoia, and Kuja. In plains such as the Yala and Kano, peat swampy soils and black cotton soils dominate. Volcanic soils interspersed with fertile peat swampy soils are found in the uplands (Rao, 2015).

Figure 14 Soil type in Kenya (a) and soil type in Lake Victoria Region (b)⁷¹⁷²



Forest and forest degradation

52. The Forest sector is the backbone of Kenya's Tourism since forests provide habitats for wild animals, offer dry season grazing grounds and protect catchments that provide water downstream. Forests maintain water catchments (defined as water towers) which support agriculture, industry, horticulture, and energy sectors contribute more than 3.6 per cent of GDP (MEF, 2020). Same source indicates that in some rural areas, forests contribute over 75% of the cash income and provide virtually all of household's energy requirements. Based on the country's broad ecological zones, climate and altitude, Kenya has classified forests in the country based on four strata: i) Dryland Forest Zone; ii) Montane and Western rainforest zones; iii) Coastal and Mangrove zone; and iv) Plantation Forest (Figure 15). The montane forest

⁷¹ Rao, J., Midega, C., Atieno, F., Auma, J.O., Cadilhon, J.J., Mango, N., Odhiambo, G.D., Oduor, F.O., Okeyo, I., Termote, C. and Wesonga, M. 2015. A situational analysis of agricultural production and marketing, and natural resources management systems in West Kenya. ILRI/icipe Project Report. Nairobi, Kenya: International Livestock Research Institute for the Humidtropics CGIAR Research Program. Available at: https://www.researchgate.net/figure/Map-showing-distribution-of-soil-types-in-the-West-Kenya-sites_fig29_323582520

⁷² The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

ecosystems include the five major water towers: Mount Kenya, Aberdares Range, Mau Forest Complex, Mount Elgon and the Cherang'ani Hills (Government of the Republic of Kenya, 2020).

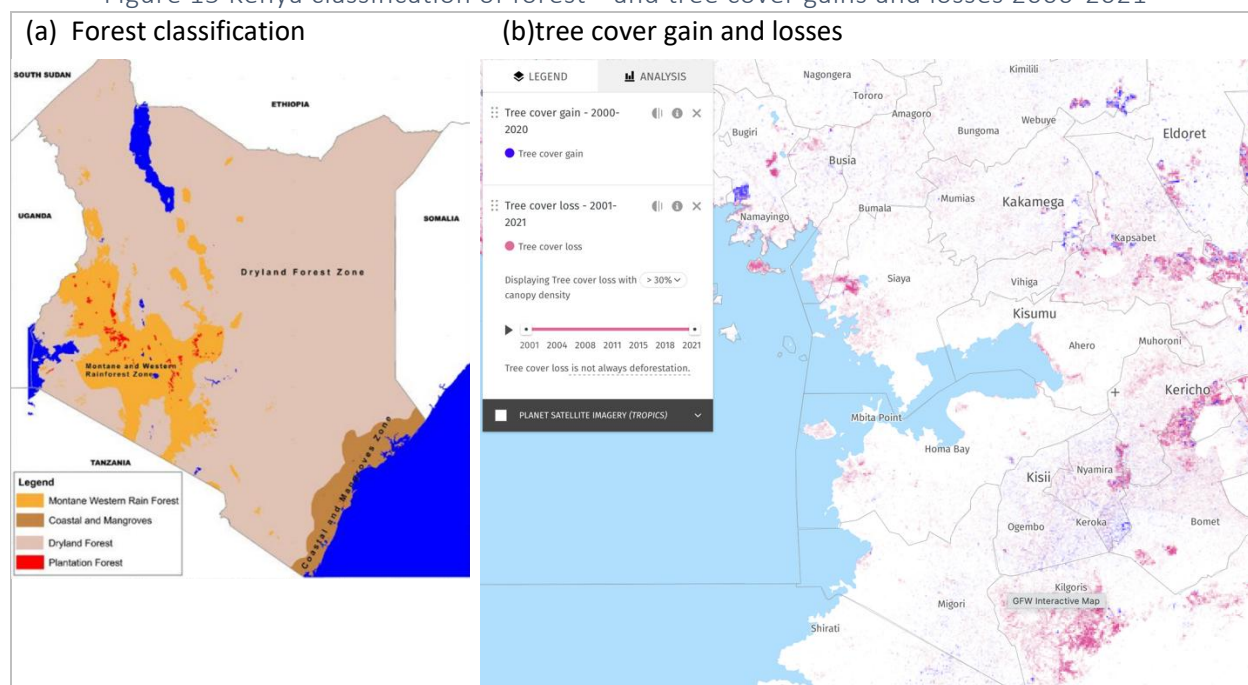
53. **Deforestation and land cover conversion** are the major driving forces behind land degradation in LREB which takes the form of declining soil fertility, accelerated soil erosion, declining water quality, negative hydrological changes and reduction in land- and water-based biodiversity⁷³. LREB has experienced a decline in forests and woodland resources due to indiscriminate harvesting of forest for timber, wood fuel, and building poles, fish curing, and charcoal making⁷⁴. Deforestation in the bloc can also be attributed to the increased land demand for grazing, agriculture and settlement⁷⁵. Deforestation in the LREB is attributed to agricultural expansion, increased demand for wood fuel and forest products, for settlement and infrastructural related developments for the increasing population. The forest cover has been fluctuating over the years, from 1990 to 1995, dense forest cover increased by 0.9% while 1995 to 2000 saw a sudden decline in dense forest cover by 2.2%. The period 2005 to 2010 saw an increase of 0.5%, followed by decrease of 0.5% (2010 to 2015), then increase of 0.2% (2015 to 2018) as shown in Figure 15 (b). The increase in forest cover is attributed to vegetation recovery from shrublands to open forests. Additionally, implementation of Agriculture Act (CAP 318) on Farm Forestry Rules enacted in 2009 requiring at least 10% forest cover in every private farm might have contributed to the gains in forest cover in LREB. Increase in wooded cover in some areas and a loss of natural vegetation in other areas could be attributed to cropland expansion and overgrazing. Additionally, implementation of the Farm Forestry Rules (2009) under the Agriculture Act, requiring at least 10% forest cover in every private farm, might have contributed some of the gains in forest cover in LREB.

⁷³ Awiti, A. (2006). Improved land management in the Lake Victoria Basin: Final report on the TransVic project. World Agroforestry Centre(7), 1-98. Available at: https://ecommons.aku.edu/eastafrica_eai/24

⁷⁴ Odada, E. O., Olago, D. O., & Ochola, W. O. (2006.). Environment for Development : An Ecosystems Assessment of Lake Victoria Basin Environmental and Socio-Economic Status, Trends and Human Vulnerabilities

⁷⁵ Naburi, N.D., Edward, M.M., Obiri, J.F., 2018. Determinants of Watershed Governance and Food Security among Households' in the Lower Sio River Watershed, Busia County, Kenya. *Int. J. Agric. Environ. Biores.* 3 (05), 30–55. Nath,

Figure 15 Kenya classification of forest⁷⁶ and tree cover gains and losses 2000-2021⁷⁷



54. Forest restoration potential: Kenya has a strong commitment to landscape restoration and has been putting in place the building blocks for improving its tree cover and restoring its landscapes and associated ecosystem service (Government of the Republic of Kenya, 2020). Kenya's Landscape Restoration Technical Working Group (LRTW), which is conformed by broad net of stakeholders, identified several restoration options that can potentially help restore ecosystem services associated with trees, such as erosion control, regulation of water flows and soil quality, as well as forest habitat for wildlife. Some of the restoration alternatives includes: afforestation of natural forest, rehabilitation of degraded natural forest, agroforestry on cropland, tree buffer along water bodies and wetlands, potential for rangeland restoration, among others.

Carbon stock – above ground biomass

55. The Aichi Biodiversity Target 11 Country Dossier for Kenya⁷⁸ (2020), The total carbon stocks is 997.1 Tg C from aboveground biomass (AGB), with 16.5% in protected areas; 898.0 Tg C from below ground biomass (BGB), with 15.9% in protected areas; 2,331.4 Tg C from soil organic carbon (SOC), with 15.1% in protected areas; and 1,412.8 Tg C from marine sediment carbon, with 0.4% in protected areas (Figure 17).

⁷⁶ Ministry of Environment and Forestry (MEF). 2020. The National Forest Reference Level for REDD+ Implementation. Available at: https://redd.unfccc.int/files/kenya_national_frl_report-august_2020.pdf

⁷⁷ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

⁷⁸ Aichi Biodiversity Target 11 Country Dossier for Kenya⁷⁸ (BDB and UNDP 2020),

Figure 16 Landscape restoration options⁷⁹

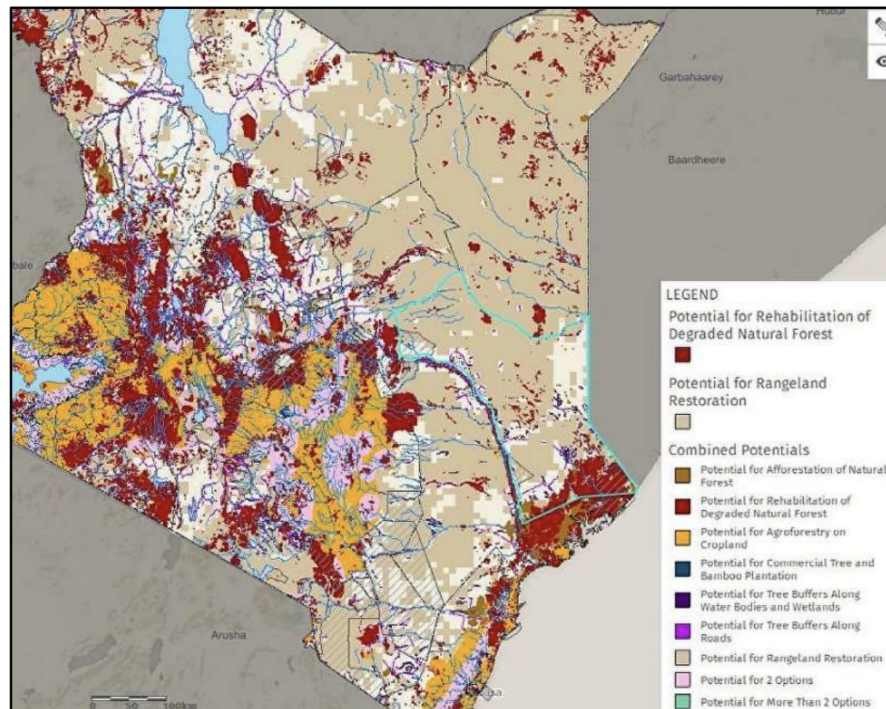
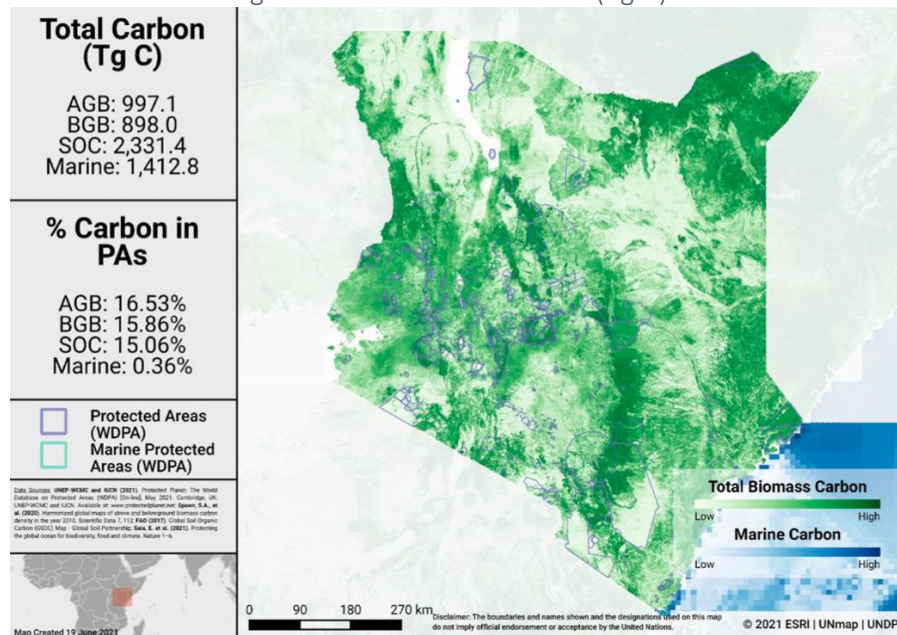


Figure 17 Total Carbon Stock (Tg C)⁸⁰



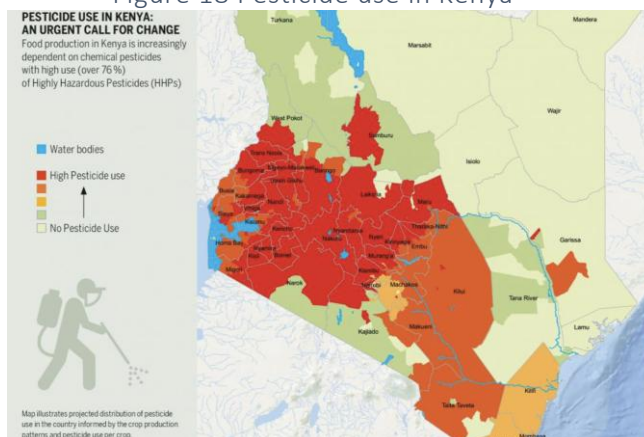
⁷⁹ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

⁸⁰ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Pesticide use

56. Pesticide use In Kenya, most of the food is produced in a conventional farming system and relies heavily on pesticides, LREB being main agriculture production zone presents highest use of pesticide, than the rest of the country (Figure 18). Data obtained by Route to Food Initiative, shows that 76% of the total volume of pesticides sold in Kenya, contain one or more active ingredients that are categorized as Highly Hazardous Pesticides (HHPs). Furthermore, 44% of the total volume of pesticides used in Kenya for production are banned in Europe (Pesticide Atlas, 2022). Despite that there is a growing interest in organic farming, only 2% of the total volume of pesticides used are biopesticides (derived from natural materials such as animals, plants, bacteria, and certain minerals). Toxic products are more affordable than biopesticides. According to the same source, the use of Highly Hazardous Pesticides (HHPs) in Kenya is worrying because no continuous monitoring takes place: environmental contamination of surface water, groundwater and soil are not recorded; not enough information on the impacts pesticides are having on local bee species; and pesticides residues on crops are mostly unknown and chronic effects are difficult to establish.

Figure 18 Pesticide use in Kenya⁸¹⁸²



3.2 Social baseline

57. Kenya is a lower – middle income country. Kenya's Human Development Index (HDI) value is 0.575, placing it 152 out of 191 countries; since 1990, Kenya has seen continuous improvement in its HDI, except for 2019 – 2020⁸³. Kenya is among the top 10 largest economies by GDP in sub-Saharan Africa. Kenya is the second-best African country in terms of regional integration policies within the EAC and Common Market for Eastern and Southern Africa (COMESA) regional blocs, according to the Africa Regional Integration Index Report 2019. The country rose from low to middle-income status in 2014 and according to World Bank figures, poverty decreased between 2005 and 2019 from 46.8% to 33.4%, with 4.5 million people considered to live below the national poverty line (BTI 2022). Despite the economic downturn attributed to the COVID-19 pandemic and the projected lack of development assistance and debt relief support from the international community, Kenya's poverty rate is projected to remain largely stable, with a minimal decline from 33.8% in 2020 to 33.2% in 2021⁸⁴.

⁸¹ <https://ke.boell.org/sites/default/files/2022-10/the-pesticide-atlas.pdf>

⁸² The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

⁸³ UNDP. 2023. Human Development Index: Country Data. Retrieved from: <https://hdr.undp.org/data-center/specific-country-data#/countries/KEN>

⁸⁴ Bertelsmann Stiftung's Transformation Index (BTI) 2022, available at: <https://bti-project.org/en/reports/country-dashboard/KEN>

58. Kenya's most pressing environmental issues include climate change, deforestation, poaching, soil erosion, water mismanagement and degraded water quality. The main forces leading to resource degradation are population growth, low agricultural productivity, inadequately designed and managed settlement programs and the lack of a comprehensive land policy prior to the new constitution⁸⁵. The impact of climate change, with recurrent droughts affecting the agricultural sector, puts a severe structural constraint on the country's ability to meet national food demand and general productivity needs. Land degradation and intense fighting over access to productive land between local pastoralists and farmers, further inflamed by political interests, are common in several regions of the country.

Poverty

59. Kenya is a lower – middle income country with limited industrialization and 17 millions of its 47.6 million population are living in poverty.⁸⁶ Kenya's multidimensional poverty rate is 53% for the total population (25.22 million people), with women accounting for 54% of the poverty rate⁸⁷. More than two thirds of rural Kenyans (67% or 18.7 million people) are experiencing multidimensional poverty, which is an underlying factor of climate vulnerability, as it limits both resilience and adaptive capacity. The national urban-rural pattern of distribution in multi-dimensional poverty is repeated in the 14 LREB counties, all of which have over 50% of their populations experiencing multi-dimensional poverty, and above 80% the Counties of: Bomet, Busia, Bungoma, Homa Bay, Kakamega, Migori, Nyamira, and Siaya⁸⁸.

Demographics

60. By 2030, Kenya's population is forecasted to grow to 60.4 million people, leading to increasing food demand. the LREB is one of the main agricultural regions and most densely populated regions in Kenya with 14 million people, defining sustainable and climate resilient pathways for agriculture in the area is fundamental and beneficial for the entire country's economy. The LREB is one of the most densely populated regions of Kenya (Figure 19) with a total population of 14,944,943 constituting 7,239,616 males, 7,704,922 females, and 366 intersex⁸⁹. The population density is quite high in some counties, ranging from 958 people per km² in Kisii to 1,047 per km² in Vihiga. The basin population is growing at a rate of 3.5 percent each year and doubles every 22 years⁹⁰.

⁸⁵ idem

⁸⁶ Kenya Ministry of Forest & Environment. 2020. Kenya's Updated National Determined Contribution.

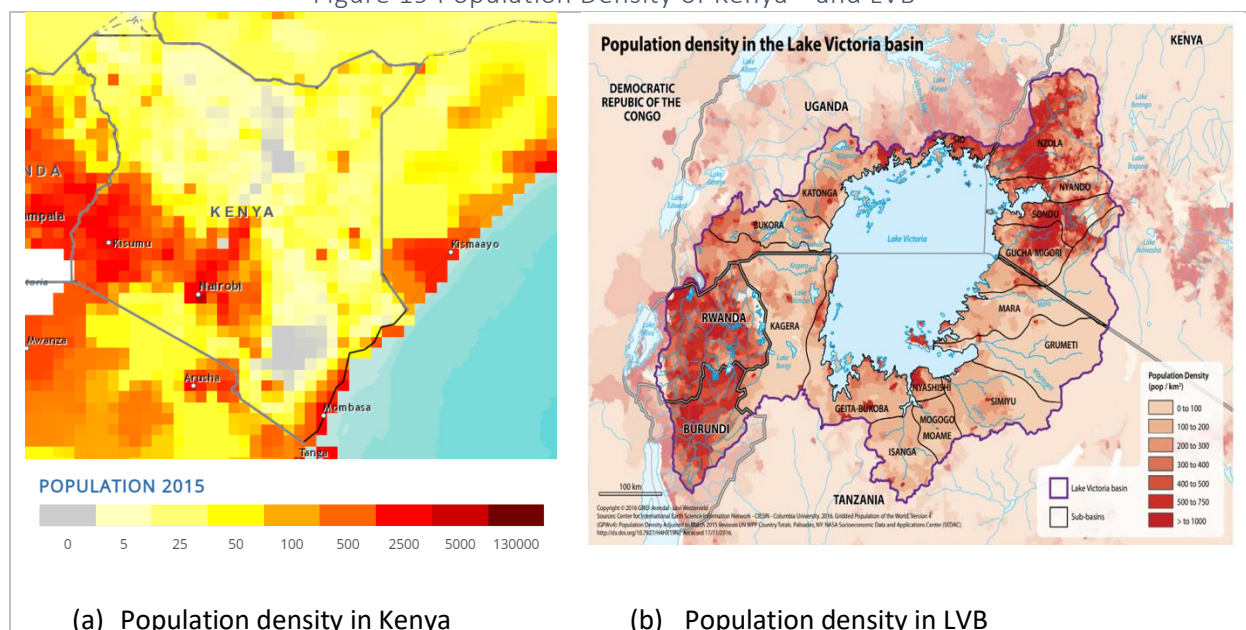
⁸⁷ Multidimensional poverty rate, as defined by UNDP, recognizes that gender, ethnicity, and caste contribute to poverty and measures poverty using three key categories of deprivation: health, education, and standard of living. Kenya National Bureau of Statistics. 2020. *Comprehensive Poverty Report: Children, Youth, Women, Men, & Elderly*; page 15

⁸⁸ Refer to FS Annex 2.

⁸⁹ Kenya National Bureau of Statistics, 2019. The share of the population under 19 years is 44 percent with 45 percent male and 43 percent female; those aged between 15 and 64 constitute 49%, and those above 65 years make up 3 percent of the total population.

⁹⁰ World Bank, 2023

Figure 19 Population Density of Kenya⁹¹ and LVB^{92,93}



Economy

61. According to BTI (2022), agriculture and horticulture are the two largest sectors of the economy; agriculture represents nearly 35% of Kenyan GDP and employs 57% of the workforce. The country exports tea, coffee, cut flowers and vegetables; these industries account for 16.4% of GDP and employ 8% of the workforce. Kenya is particularly advanced in the services sector, which contributes 42.7% of GDP and employs 35% of the workforce. Kenya's GDP in 2021 was 110 billion USD, or 2,081 USD per capita. Trends are rapidly increasing (7.5% growth rate in 2021⁹⁴), however all sectors faced contraction due to the COVID-19 pandemic, except agriculture which only contracted by 0.1% in 2020 and contributed 22.4 percent to the Kenya's 2021 GDP⁹⁵. Impeding Kenya's development are the increasing public debt at 68 percent⁹⁶; inflation; climate variability and climate change impacts to rain-fed agriculture (which continues to be predominant)⁹⁷. Development in the LREB is limited, only 50 percent of the roads in the region are paved and 30 percent of the population has access to electricity⁹⁸. with most of the region's population having no access to clean water and sanitation services. Clean and safe drinking water is delivered in urban areas, but not in the majority of rural areas; 32% of Kenya's population relies on unimproved water sources (e.g., ponds, shallow wells and rivers) and 48% lack access to basic sanitation (BTI 2022). Table 3 summarizes development indicators for all 14 counties in the Lake Basin Region⁹⁹.

⁹¹ World Bank, 2023

⁹² https://gridarendal-website-live.s3.amazonaws.com/production/documents/s_document/318/original/LakeVicAtlas_screen.pdf

⁹³ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

⁹⁴ World Bank Data, last accessed 1/23/2025 <https://data.worldbank.org/country/kenya>

⁹⁵ Vision 2030 Delivery Board, 2022

⁹⁶ African Development Bank Group, 2022

⁹⁷ World Bank, 2023

⁹⁸ Lake Region Economic Bloc, 2015

⁹⁹ Most of the data comes from county integrated development plans 2018 – 2022, with each county having similar formats but differing levels of reporting. For example, Busia county reports life expectancy and literacy rates for its population but Bomet lacks this information, instead, reporting the number of children enrolled in primary education but giving no indication of the literacy rate (as a proxy for achieving a primary education) for the entire Bomet population.

Unemployment and underemployment

62. According to BTI report (2022) Kenya's unemployment rate doubled from 5.2% in the first quarter to 10.4% in the second quarter of 2020, due to the COVID-19 pandemic, according to the Kenya National Bureau of Statistics. Census data released late 2020 showed that 38.9% of the 13,777,600 young Kenyans are jobless, further widening the gulf between the wealthy and the poor. As a result of the COVID-19 pandemic, labor force participation rates for women declined by approximately 25% between 2019 and 2020 as compared to a decline of about 10% for males (BTI 2022).

Table 3 LREB Counties' Development Indicators

County	Population with Access to Piped Water and Sanitation Services ¹⁰⁰	Percent Population that is Literate ¹⁰¹	Percent Households with Electrical Service ¹⁰²	Life Expectancy	Infant Mortality	Total Road Network	Percent Roads that are Paved	Percent Households Suffering Monetary Poverty ¹⁰³	Levels of Food Insecurity	Percent Children below five years of age suffering malnourishment ¹⁰⁴	Percent Children under five years of age suffering stunting ¹⁰⁵
Unit	Percent	Percent	Percent	Years	Per 1000 births	Kilometers (km.)	Percent	Percent	Levels ¹⁰⁶	Percent	Percent
Bomet ¹⁰⁷	25	-	65	-	-	2041	11.6	47.7	Phase 1	12	38
Bungoma ¹⁰⁸	67	71.5	27	60	-	-	-	35.5	Phase 1	9	24
Busia ¹⁰⁹	12.5	75	49	47	65	1600	11	68	Phase 1	31	26.5
Homa Bay ¹¹⁰	41	74 women ¹¹¹	13	-	-	10,000	3	33	Phase 1	8.6	21.8
Kakamega ¹¹²	16	83.1	-	59.5	65	4451.3	7	35.1	Phase 1	-	-

¹⁰⁰ County Integration Development Plans, 2018 - 2022

¹⁰¹ Proxy for having received primary education (receiving an education designed for children from ages 6 – 11; source: [UNICEF](#))

¹⁰² County Integration Development Plans, 2018 - 2022

¹⁰³ KNBS Comprehensive Poverty Report 2020

¹⁰⁴ County Integration Development Plans, 2018 - 2022

¹⁰⁵ County Integration Development Plans, 2018 - 2022

¹⁰⁶ FEWS-NET, <https://reliefweb.int/report/kenya/kenya-food-security-outlook-june-2022-january-2023> - Integrated Phase Classification (IPC), defines 6 phases of food insecurity: 1) *Phase 1 Minimal* - Households are able to meet essential food and non-food needs without engaging in atypical and unsustainable strategies to access food and income; 2) *Phase 2 Stressed* - Households have minimally adequate food consumption but are unable to afford some essential non-food expenditures without engaging in stress-coping strategies; 3) *Phase 3 Crisis* - Households either: Have food consumption gaps that are reflected by high or above-usual acute malnutrition OR are marginally able to meet minimum food needs but only by depleting essential livelihood assets or through crisis-coping strategies; 4) *Phase 4 Emergency* - Households either: Have large food consumption gaps which are reflected in very high acute malnutrition and excess mortality OR are able to mitigate large food consumption gaps but only by employing emergency livelihood strategies and asset liquidation; 5) *Phase 5 Famine* - Households have an extreme lack of food and/or other basic needs even after full employment of coping strategies. Starvation, death, destitution, and extremely critical acute malnutrition levels are evident. (For Famine Classification, area needs to have extreme critical levels of acute malnutrition and mortality)

¹⁰⁷ Bomet County Integration Development Plan, 2018 - 2022

¹⁰⁸ Bungoma County Integration Development Plan, 2018 - 2022

¹⁰⁹ Busia County Integration Development Plan, 2018 - 2022

¹¹⁰ Homa Bay County Integration Development Plan, 2018 - 2022

¹¹¹ Homa Bay CIDP only lists the literacy rates for women without including men, so total population literacy rate unknown

¹¹² Kakamega County Integration Development Plan, 2018 - 2022

Kericho ¹¹³	Less than 50	-	11.8	-	-	2083	Less than 1	29.9	Phase 1	1.4	0.6
Kisii ¹¹⁴	4	86.5	29.5	61	-	2724	7.7	41.3	Phase 1	-	-
Kisumu ¹¹⁵	58	-	46.24	59.5 ¹¹⁶	79	671	76.53	34.1	Phase 1	-	18
Migori ¹¹⁷	-	-	-	-	-	-	-	40.7	Phase 1	-	-
Nandi ¹¹⁸	22	60	16.5	61 ¹¹⁹	43	5014	5.7	35.9	Phase 1	15	29.9
Nyamira ¹²⁰	3.4	46 ¹²¹	49.5	-	30	1574.59	10.16	32.3	Phase 1	9.6	26
Siaya ¹²²	5	80	30	41 ¹²³	111	1672	11	33.1	Phase 1	24.7	12.5
Trans-Nzoia ¹²⁴	9.3	-	30.7	58.67	47	4421.7	3.69	34.1	Phase 1	29.2	15.3
Vihiga ¹²⁵	16.8	93.8	12	56.2	64	1058.2	19	41.7	Phase 1	6.4	14.6

Source: Authors' own elaboration.

63. A report elaborated by Deloitte (2018) with information from the “Lake Region Economic Blueprint, highlights the key challenges in LREB sector as following:

- **HEALTH:** Infrastructure: limited health facilities are available. Medicine: There is a chronic lack of adequate levels of essential drugs particularly for mothers and children. High disease burden HIV/AIDS prevalence is a particular challenge– HomaBay, Kisumu and Migori counties have the highest HIV prevalence rate in the region. The prevalence of malaria in the region is also high. Mortality rate: High mortality rates High rates of infant and child mortality in the area range from 12 to 15%. Poor funding: Health sector confronts chronic underfunding that does not adequately support the physical and human resources required to ensure the quality of education delivered is high.
- **EDUCATION:** Low transition and completion rates: the transition rate into secondary and tertiary education is especially low. Poor and declining education standards: even educated persons are not skilled and often unable to create or gain meaningful employment and improve their standards of living. Poor education facilities and learning resources: dilapidated buildings with no electricity, adequate seating or learning materials. Poor infrastructure: poor network of road and transport infrastructure which can make it difficult for pupils and teachers to get to the schools.
- **TOURISM:** Lack of capital and poor government support: the Western Tourism Circuit has not been marketed as a tourist attraction, not considered an investment destination in the sector. Poor infrastructure and facilities: inadequate road networks, infrastructure need to be rehabilitated. The region lacks social services such as hospitals and most of the tourist sites are located in the remote

¹¹³ Kericho County Integration Development Plan, 2018 - 2022

¹¹⁴ Kisii County Integration Development Plan, 2018 - 2022

¹¹⁵ Kisumu County Integration Development Plan, 2018 - 2022

¹¹⁶ Arithmetic mean of 61 years at birth for women and 58 years at birth for men

¹¹⁷ Migori County Integration Development Plan, 2018 - 2022

¹¹⁸ Nandi County Integration Development Plan, 2018 - 2022

¹¹⁹ Arithmetic mean of 59 years for men and 61 years for women

¹²⁰ Nyamira County Integration Development Plan, 2018 - 2022

¹²¹ Arithmetic mean of 51 percent for men and 41 percent for women

¹²² Siaya County Integration Development Plan, 2018 - 2022

¹²³ Arithmetic mean of 38.3 years for men and 43.6 for women, and rounded up to the nearest one

¹²⁴ Trans Nzoia County Integration Development Plan, 2018 – 2022

¹²⁵ Vihiga County Integration Development Plan, 2018 – 2022

areas of the country far from access to medical facilities. Security issues: These stem both from political instability and tribal tensions as well as threats from the militant group AlShabaab. Natural disasters: the region is often subject to flooding at various tourist sites which creates reluctance to visit the region. Environmental damage: Environmental threats exist in national parks and game reserves particularly poaching. Increasing population hassled to human encroachment into wildlife habitats such as forests and grasslands.

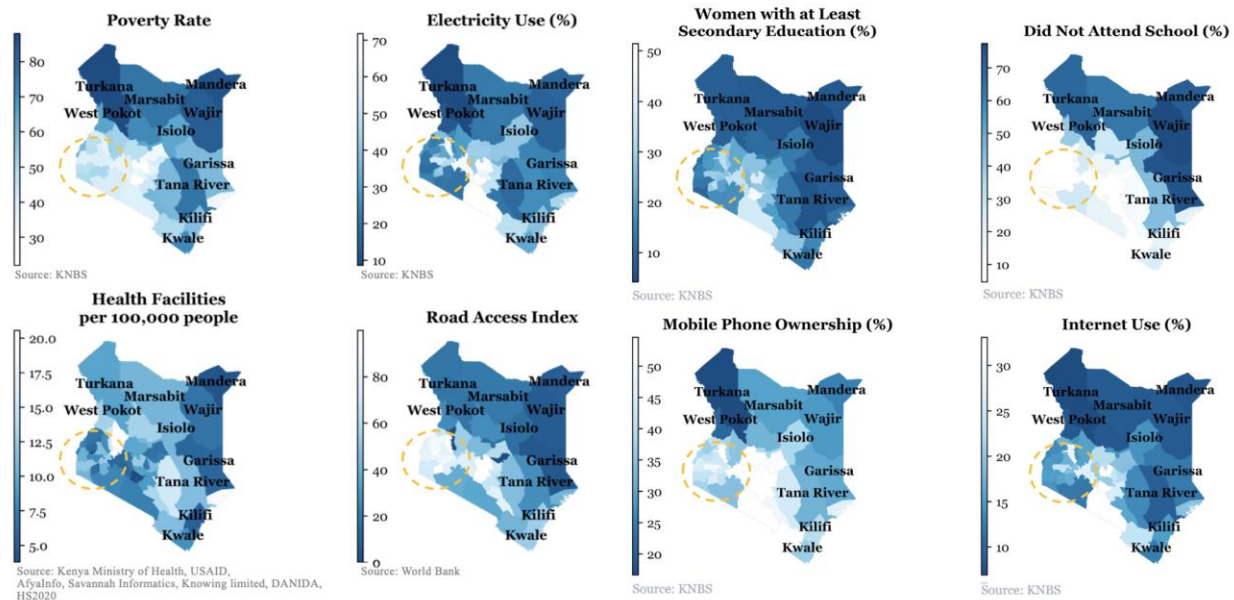
- **AGRICULTURE:** Declining Yield: declining yield per hectare and the lowering quality of yields, attributed to small farmland size holdings, use of poor farming methods and the lack of legal title deeds which then impedes possibilities of farmers getting access to credit. Low productivity: Poor agricultural practices: deployment of poor agricultural practices, lack of irrigated acreage, the collapse of agricultural extension services. The region continues to be a net exporter of unprocessed produce and importer of finished products. Lack of title deeds: large proportions of land holders do not have title deeds; the land is simply passed down from father to son in the traditional spirit of inheritance. Lack of title deeds prevents most of the population from accessing credit facilities. Others: Low uptake of research and technology; heavy postharvest losses, high input costs, over reliance on rain fed agriculture; diseases and pests, weak marketing channels and inadequate market infrastructure.

Vulnerability

64. A correlation analysis of being left behind study (UN-Kenya, 2022) found that counties with high poverty rates tend to have a larger percentage of the population without schooling, less electricity use, low cellphone ownership, internet use, and women with at least secondary level education. At the same time, counties with high usage of electricity also have more cellphone ownership and internet use, and a larger percentage of women who achieve at least secondary education. Qualitative analysis indicated patterns between geography and gender discrimination. For instance, Female Genital Mutilation (FGM) is highest in most rural areas with the least access to basic goods and services and infrastructure. Low levels of education, limited livelihood opportunities, conflict, displacements, and gender inequalities including early and forced marriages have been linked to harmful social and cultural practices.

65. The risk of being left behind study (UN-Kenya, 2022), found that concerning the five factors (discrimination, vulnerability to shocks, governance, socioeconomic status, and geography), the majority of counties that are in North and Northeastern Kenya, are the ones furthest left behind. However, this same source indicates that in all counties, there are sections of the population that are at risk of being left behind regardless of their ethnic identity. Overall, this assessment identified that sub-categories of women (teenage mothers, infertile or childless women, unmarried mothers, widows), small ethnic groups and clans, hunter-gatherer groups and forest dwellers, members of the LGBTQIA community (lesbians, gays, bisexual, transgender, queer, intersex and asexual), people with albinism, persons living with HIV and people living with disabilities (PWDs) face everyday exclusion, violence and/or stigma.

Figure 20 Counties' performance on various indicators in the study leave no one behind (UN-Kenya)¹²⁶



Health

66. Health indicators in the Lake Region are a cause for concern and pose serious challenges to the region's development, facing several health challenges such as low levels of skilled medical personnel doctor to patient ratio is 1:40,000 and the nurse-to-patient ratio is 1:2,500)¹²⁷. Health facilities are scant with only one high trauma hospital in the region based in Kisumu County. The prevalence of diseases such as malaria and HIV/AIDs are high, and morbidity and mortality to illnesses such as diarrhea and pneumonia remain common. Natural disasters like climate change, floods and droughts can adversely impact the social, community and health delivery systems. They follow pathways that are similar to those of main diseases, with the potential to exacerbate poverty, gender vulnerability, exploitation of children and strains on the health care delivery systems.

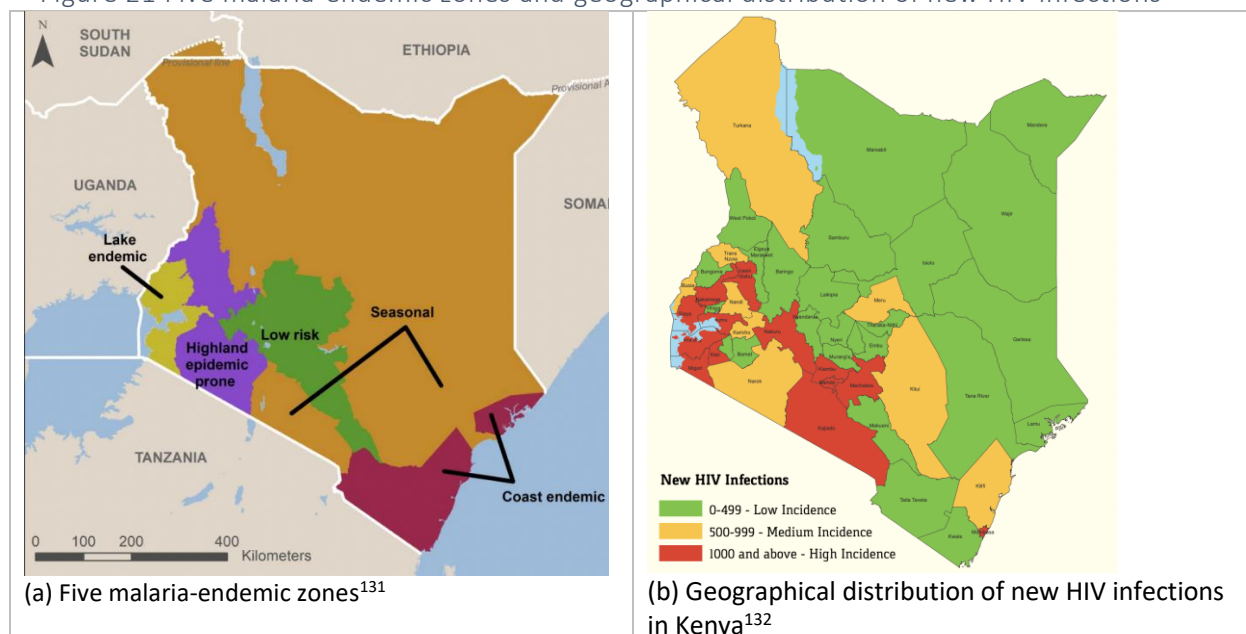
67. Health challenges include high rates of infant and child mortality – ranging to highs of 12 to 15per cent in some Counties. HIV/AIDS prevalence in Kisumu, Homa Bay, Siaya and Migori counties have the highest HIV prevalence rate in the region (Ministry of Health , 2020). According to this source, adolescent and young people contribute to 42% of the new HIV infections in the country. Furthermore, adolescent girls and young women (AGYW) aged 15-24 years contribute to a third (30%) of the 41,728 new HIV infections in the country (HIV Estimates 2020). Factors such as intergenerational sex, teenage pregnancies, sexual and other forms of gender-based violence (GBV), discontinuation of school specially during transition from primary to secondary school, prevailing gender norms, poor access to comprehensive sexuality education, limited access to HIV, sexually transmitted infections (STI), sexual and reproductive health and rights (SRHR) services and low socio-economic status have largely been attributed to the high HIV incidence among AGYW compared to boys and young men of the same age group. Malaria remains a major public health problem in Kenya, approximately 70% of the population is at risk for malaria, including

¹²⁶ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

¹²⁷ Deloitte. The Lake Region Economic Blueprint – A better life. Available at: https://cog.go.ke/phocadownload/reports/Lake_Basin_web.pdf

13 million people in endemic areas¹²⁸ and another 19 million in highland epidemic prone and seasonal transmission areas (Ministry of Health, 2021). According to this same source, out of the 14 countries that are part of the Project, eight belong to the Lake endemic zone: Siaya, Kisumu, Migori, Homa Bay, Kakamega, Vihiga, Bungoma and Busia; the rest belong to the Highland epidemic prone (Ministry of Health, 2021). A projected 1–3.5 °C rise in average global temperatures by 2100 could exacerbate the epidemics by modifying disease transmission thresholds (Ednah Ototo et.al, 2022). In their research, the RCP 8.5 scenario shows that there will likely be a steady increase in the mean malaria cases reported at the hospitals over time as a result of the anticipated widening variability in rainfall and temperature.

Figure 21 Five malaria-endemic zones and geographical distribution of new HIV infections ¹²⁹¹³⁰



68. Acute food insecurity: Food insecurity is primarily driven by a combination of shocks, including a fifth successive below-average rainy season, poorly distributed in space and short-lived, resulting in below average crop production, poor livestock conditions, and higher exposure to livestock disease. The project will work on counties that according to the IPC Acute Food Insecurity phase classification are on “Category I or minimal” acute food insecurity¹³³.

Land tenure and land conflicts

69. Most of Africa is unregistered community land (lands acquired, possessed, and transferred under community-based regimes), which translates into customary tenure; where founding norms derive from longstanding practices by a village, clan or tribal community (Alden, 2018). Currently, the rules by which customary tenure operates in the region are a hybrid of traditional and contemporary practices guided by national laws (eg. Kenya Community Land Act, 2016). In Kenya there are three kinds of land tenure

¹²⁸ Endemic areas: These are areas of stable malaria transmission (with altitudes ranging from 0 to 1,300 m) around Lake Victoria in western Kenya and in the coastal regions.

¹²⁹ <https://dhsprogram.com/pubs/pdf/MIS36/MIS36.pdf>

¹³⁰ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

¹³¹ <https://dhsprogram.com/pubs/pdf/MIS36/MIS36.pdf>

¹³² https://nsdcc.go.ke/wp-content/uploads/2021/01/KASFII_Web22.pdf

¹³³ <https://reliefweb.int/map/ethiopia/horn-africa-usg-response-complex-emergency-022123>

systems: public land held in trust by the government, community land held by the community, and private land held by individuals either through freehold or leasehold (Stiftung, 2022).

70. Land right issues in Kenya can be tracked down to colonial era, when British considered that pre-colonial customary tenure arrangements (where all natural resources were owned communally and claims were determined by clans) were inconsistent with development and modernization, declaring all land to be Crown Land¹³⁴ and establishing a new tenure system (individual or private titles) that substituted customary tenure (Wakhungu et.al, 2017). Local people's rights to land were defined by occupancy, causing land loss, force displacement and resettlement of many Indigenous Peoples and ethnic tribes. In this regard, two-parallel land-holding systems developed with one set of laws to govern native lands and another to govern crown land (even after independence both sets of laws are still in force (World Agroforestry Centre). In August 2010, Kenyans approved a new Constitution which ushers in significant changes to land governance and tenure. It states all land belongs to the people of Kenya, land is public, community or private, establishes a National Land Commission, and allows non-citizens to hold land only on the basis of leasehold tenure. To address land grievances, the Constitution (Article 40(6)) denies protection of property ownership and use rights to those who acquired public land illegally. It also authorizes repossession of public lands illegally acquired by private persons (Article 68), read together with the National Land Commission's functions in Article 67(2). According to a literature review conducted by Onguny & Gillies (2019), there are five main dominant explanations or agencies in conflict over land in Kenya: colonial legacy, environmental concerns, natural resource extraction, political dynamics, and "sons of the soil" narratives as the dominant lines of argument used to characterize agency in land conflict in Kenya. According to these authors, colonial legacy underscores historically rooted claims of land possession and dispossession; environmental concerns underpin the role of climate change in people and animal mobility, which creates pressure and tension or conflict over land between communities; political factors revolve around the control and governance of land for electoral gains and the capture of power; natural resource extraction problems highlight unbalanced rent sharing practices; and the "sons of the soil" discourse centers on people's sense of belonging as they relate to land ownership.

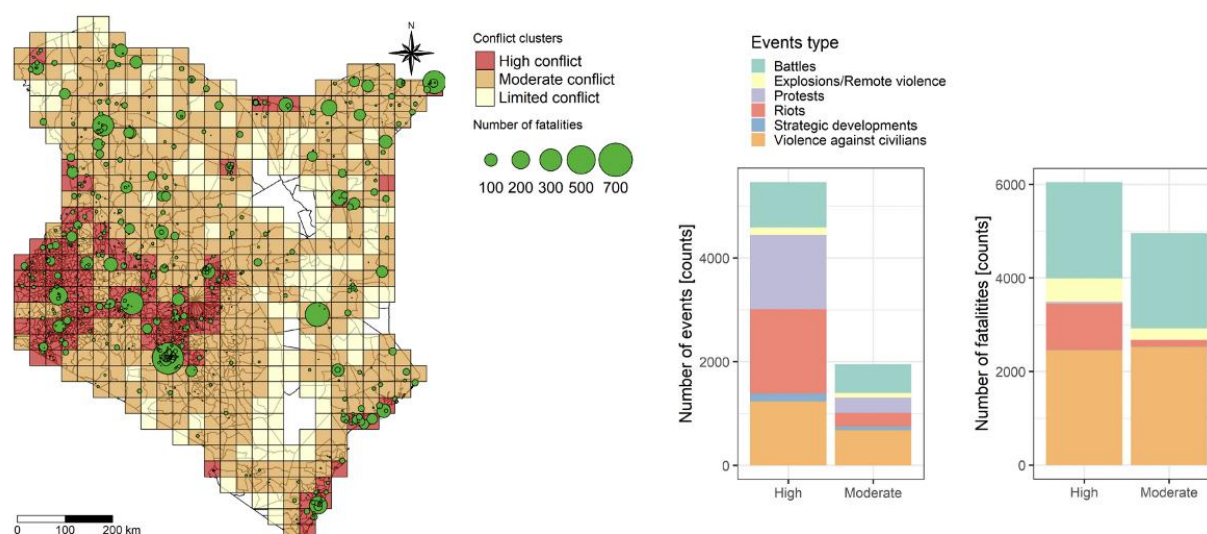
71. The results of a study conducted on land conservation and tenure security in the southern part of the Rift Valley province highlights that, security of tenure is important for the adoption of land conservation practices and that individual ownership rights favors the adoption of specific land conservation practices (Kabubo-Mariara, 2007). This finding supports literature which shows that private landowners are more likely to conserve land as they are assured of retaining the long-term gains from investments in conservation. Findings of the study call for a combination of short-term and long-term policy measures that offer incentives for land conservation among them: enhanced security of tenure, government targeting programs and other policies that reduce household poverty, improved access to education both formal and informal, improvements in product prices and access to markets and water.

72. Climate exacerbates root causes of conflict in Kenya (CGIAR, 2021). A spatial hotspot analysis conducted by CGIAR, show that areas of high conflict and harsh climate interactions cooccurred with hotspots where socio-economic vulnerabilities (undernutrition, inequality, migration, low productivity) are present Figure 22. High conflict areas are estimated in the Central, Nairobi, southern corridor of Rift Valley, Nyanza, and Western provinces, but also in the southeastern part of the country in the counties of Kwale, Mombasa, Kilifi and Lamu. The moderate conflict cluster covers most of the rest of the country.

¹³⁴ Crown Land: any land not physically occupied by local people was considered waste- land (free land) and free for alienation to the European settlers.

Riots, protests, battles, and violence against civilians are the main conflict events and produce a greater number of fatalities in both high and moderate conflict clusters.

Figure 22 Conflict distribution (geographical location and distribution per type of conflict)¹³⁵¹³⁶



73. Climate change impacts intersect with a range of other environmental and social rights issues. The vulnerability of minorities, Indigenous Peoples, and other excluded groups (e.g., women, children, LGBTQ+ people and people with disabilities) to climate change is a product of a wider backdrop of discrimination, encompassing land, housing, culture, livelihoods and migration (Minority Rights Group, 2019). Very often Indigenous Peoples are treated by authorities as potential threats to their forests and lands, which contradicts the reality. In fact, that Indigenous Peoples are custodians of the majority of the planet's food and genetic resources are stewards of the territories and biocultural processes that shape genetic diversity, their territories hold up to 80% of the world's biodiversity (FAO, 2021). Indigenous Peoples' wisdom, traditional knowledge, and ability to adapt provide lessons from which other non-indigenous societies can learn, especially when designing more sustainable food systems that mitigate climate change and environmental degradation (FAO, 2021).

74. The implications of climate change for food and land tenure security are of particular concern to pastoralist and indigenous communities in Kenya, for example. The case of Sengwer¹³⁷ communities where Indigenous Peoples has been forced from their homes and dispossessed of their ancestral lands in the Cherangany Hills area of the Embobut Forest; they've also suffered from repeatedly abuse of authority by Kenya's Forest Services (KFS), where an increased number of arrests mainly of women was reported. In addition to these, Sengwer are also struggling to develop new livelihood opportunities without access to the forest resources on which their livelihoods depended, causing women and children to experience health problems (lack of access to food and medicinal herbs), exposing girls to early marriage, physical and sexual violence towards women and girls, and overall, affecting the Sengwer culture and traditional

¹³⁵ Traffic code: green color (limited conflict - good climate); yellow color (moderate conflict - harsh climate), and red color (high conflict - harsh climate).

¹³⁶ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

¹³⁷ Sengwer indigenous people live in the Cherangany Hills in Trans-Nzoia, West Pokot and Elgeyo-Marakwet, Kenya. The Sengwer people are considered one of the most marginalized communities in Kenya with an estimated population of 33,000 people. Cited from:

<https://www.wtfwwf.org/sengwer/>

norms (Minority Rights Group, 2019). Furthermore, pastoralist communities and other hunter-gatherers' communities in Kenya also suffered from consequences of climate change. A series of escalating droughts (2011-2017), drove communities such as Endorois, who live on the shores of Lake Bogoria in the Rift Valley (Baringo County), and Aweer (Lamu County), away from their regions in search of pasture or opportunities to work. When communities are forced to move and encroach on neighboring lands, violence can result. During the 2017 drought, for instance, pastoralists were killed in Laikipia as they moved towards majority settlements to search for grazing for their animals. This highlighted the serious issues with land inequality in Kenya, rooted in part in the colonial history of the country, as Laikipia is commonly known as an area where expatriates have settled.

75. There are many examples of well-intended development projects that had detrimental social impacts on communities due to insufficient discussion, consultation or consent with key actors, including Indigenous Peoples, ethnic minorities and marginalized groups. Therefore, the development of an inclusive conservation and management approach rooted in transparent and participatory FPIC process and on-going engagement process with Indigenous Peoples and local communities are central to the sustainability of a project. Special attention must be placed, to ensure that indigenous communities (most cases include nomadic pastors and traditional forest dwellers communities), ethnic minorities, are not affected by the project activities, that in the name of conservation and integrated management processes their customary land rights are protected, and that they are included and consulted in decision making process that could affect their livelihoods.

Child labor

76. According to US Department of Labor (2021), Kenya made minimal advancement in efforts to eliminate the worst forms of child labor, at a national level the government continues to implement practices that delays advancement to eliminate child labor. Children in Kenya are subjected to the worst forms of child labor¹³⁸, including in commercial sexual exploitation, sometimes as a result of human trafficking, and forced domestic service. By sector, the highest percent of working children between the ages of 5 to 14 years are employed in services (38.2%) and in agriculture (46.3%); within agriculture, main activities children perform are: Farming,[†] including the production of tea, coffee, khat (miraa),[†] rice, sisal, sugarcane, tobacco, corn, flowers, and cotton; herding livestock; fishing and cutting trees and burning wood for charcoal (U.S. Department of Labor, 2021). These same report highlights that, human traffickers exploit Kenyan children and also children from neighboring East African countries and South Sudan in forced labor (domestic work, slaughterhouses, agriculture and commercial sexual exploitation), sometimes as a result of human trafficking, both within and outside the country.

77. The Child Labor and Forced Labor Report (2021), indicates that Kenya has ratified most key international conventions concerning child labor (refer to section on international treaties), as well as establishing national laws and regulations related to child labor. However, gaps exist in Kenya's legal framework to adequately protect children from the worst forms of child labor, including the gap between the compulsory education age and the minimum age for work. According to the Employment Act, minimum age for work is 16 years, and minimum age for hazardous work is 18 years. Kenya permits light work activities for children ages 13 to 16, including agricultural and horticultural work not exceeding 2 hours, though it does not establish limits on the number of hours for other identified activities (U.S. Department of Labor, 2021). Key coordinating committees related to elimination of child labor lack

¹³⁸ Categories of Worst Forms of Child Labor: Commercial sexual exploitation, sometimes as a result of human trafficking; Use in illicit activities, including in drug trafficking, intelligence gathering to plan for criminal operations, and providing security for criminal operations, and; forced labor in slaughterhouses, sand harvesting, begging, street vending, domestic work, herding livestock, fishing, and agricultural work

adequate resources to carry out their mandates and the labor inspectorate does not have sufficient financial and human resources, affecting its ability to ensure that child labor laws are enforced.

Youth

78. Kenya has a generally youthful population, according to the 2019 Kenya Population and Housing Census report, Youth¹³⁹ were 13,618,462 or 29 percent of the Kenya's population of 47.6 million. The males were 6,504,514 while females were 7,113,427. In the political sphere, the youth constituted 51 per cent of registered voters in 2017 elections as compared with 46 per cent in 2013. In education, 41% have primary education level, 35% have secondary education level, whereas 20% have up to tertiary education level (college and university). As per this Policy, 76% of Youth have mobile phones and 80 per cent of all youth access the internet through mobile phones for purposes of networking and communication; only 7.2 per cent of youth access internet through education centers and a negligible number – 0.4 per cent access through community centers. The 2019 Kenya Population and Housing Census report indicated that youth aged 18-34 years in employment were 8,436,418 (62% of total youth population and 18 per cent of total Kenya's population); in unemployment, 38% of the total youth population in Kenya in 2019 were not in employment. Main challenges reported for youth include: unemployment, underemployment, informal working arrangements, youth labor migration, skill shortages (lack technical and soft skills), lack of collateral to access financial resources, early and unintended pregnancies; limited participation in economic and political sphere, among others. Kenya Youth Policy, seeks to position youth at the forefront of agriculture growth and transformation¹⁴⁰ through: increase access to appropriate agricultural education and training; increase investment in rural farm and non-farm activities and social and economic infrastructure; support youth's access and ownership of land for agri-business as well as access to innovative agricultural technologies, including climate change adaptation; provide youth with extension services to support growth and development of enterprises.

Indigenous Peoples

79. **Indigenous Peoples:** The country has not yet adopted the United Nations Declaration on the Rights of Indigenous Peoples and has yet to ratify Convention 169 of the International Labor Organization, the country is yet to ratify the ILO convention on Indigenous and tribal peoples. Though, Kenya has no specific law on Indigenous Peoples, the country has ratified the: i) International Convention on the Elimination of All Forms of Racial Discrimination (ICERD); ii) the Convention on the Elimination of Discrimination against Women (CEDAW); and iii) the Convention on the Rights of the Child (CRC). Kenya does not have specific legislation on Indigenous Peoples, and does not identify with the term indigenous, rather considers those segments of the population who have continued to live by their traditional customs and belief systems and way of life, as marginalized (these communities include mostly hunter-gatherers and pastoralists). Within Kenya Constitution's Bill of Rights, Kenya guarantees the protection of minorities and marginalized communities/groups. The Constitution obliges the State to ensure adequate representation of marginalized and Indigenous Peoples in all levels of government, and to promote the freedom to exercise culture and indigenous languages. Refer to Chapter 6 of ESMF for detailed information on Indigenous Peoples.

80. **Religious and Ethnic Affiliation.** According with Kenya's Population and Housing Census (2019) the majority (85.5 per cent) of the population are Christians with Protestants, Catholics and Evangelical churches accounting for 33.4, 20.6, and 20.4 per cent, respectively. Muslims accounted for 11 per cent of

¹³⁹ Kenya Youth Development Policy (2019), defines youth as a person, male or female, in the age bracket of 18 to 34 year.

¹⁴⁰ Agriculture is one of the main activities in the Country. However, youth are not adequately involved in agricultural activities. The average age of farmers was over 62 years in 2017

the entire population. The five most populous ethnic affiliations were Kikuyu, Luhya, Kalenjin, Luo and Kamba while the five least populous were Dahalo, El Molo, Konso, Gosha and Wayyu (Kenya, 2019)

81. People living with disabilities (PLWD): People with disabilities in Kenya face stigma and discrimination that lead to enduring and humiliating stereotypes and prejudices against people with disabilities as a curse and a burden on society, as well as undermining the human right principals (Rohwerder, 2020). It is estimated that 2.2% of Kenya's population (900,000 people) live with some form of disability (Kenya Population and Housing Census, 2019). The census results indicate that 1.9% of men have a disability compared with 2.5% of women. There are more Persons with Disabilities living in rural than urban areas with prevalence rates by residence showing that 2.6% (0.7 million) of people lived in rural areas and 1.4% (0.2 million) of people in urban areas have a disability (PSYG, 2018). People with disabilities are more likely to suffer opportunistic infections, lack employment and lack adequate livelihood opportunities. PLWD are marginalized from participating in agricultural production more broadly, and the belief that they are unable to contribute as producers, marketers, or leaders¹⁴¹. Farmers with disabilities are also likely to face a combination of systematic, attitudinal, or environmental barriers that limit their participation in agricultural value chains.

Gender Based Violence and Harassment

82. Prevention of Sexual and Gender based Violence (SGBV) is a priority for Kenya, the country adopted a multi-sectoral approach in response to SGBV, integrating POLICARE, a ONE STOP victim support center which adopts a synergy of multi-sectoral agencies who respond to SGBV in Kenya¹⁴². Gender based violence (GBV) is a critical issue in Kenya, across its many forms. For example, 47.1% of ever-partnered women and girls aged 15 years and older were subjected to physical, sexual, or psychological violence by a current or former intimate partner in the previous 12 months, with 36.9% physical violence, 13.3% sexual violence, 32.4% emotional/psychological violence reported as per 2014.¹⁴³ According to the 2022 GGGI, 39.4% of women will experience GBV in their lifetime.¹⁴⁴ Furthermore, 21% of girls and women aged 15-49 years have undergone female genital mutilation/cutting (FGM)¹⁴⁵. At national level, 4.4% of women aged 20-24 years of age who were married or in a union were married before age 15, while 22.9% were married before age 18, as per 2014 reporting.¹⁴⁶ The proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months is 22.7% national average (2014 reporting year).¹⁴⁷

83. Sexual gender-based violence and harassment (GBVH) is a serious and systemic form of labour abuse in the agribusiness value chain (from production – distribution) and can often overlap with other forms of labor abuse; while it can affect anyone, it is rooted in gender inequality and power imbalances ((IFC), 2020). According to a study conducted by IUCN (IUCN, 2020), agricultural areas experiencing environmental degradation, slow-onset climate-related crises (such as drought) and sudden natural disasters, can lead to gender-based violence including sexual assault, domestic violence and forced prostitution. GBVH risks vary according to workers' gender or sexual orientation, age, membership of a

¹⁴¹ Veronica Wanjiku N'gang'a. 2013. PWD in agriculture in Kenya: access to resources and training. Presented at Promoting equity: cross-cutting disability in international development research. Cross Cutting Disability Research Programme (CCDRP) Final Dissemination Conference, University College London, London, UK, 17 June 2013. (2013) 14 pp.

¹⁴² https://www.unodc.org/documents/congress//01_Statements_HLS/8Mar/Kenya.pdf

¹⁴³ *ibid.*

¹⁴⁴ https://widgets.weforum.org/GGGR/edition-22-ranking/pdf/2022/gggr_index_2022_072_KEN.pdf

¹⁴⁵ <https://data.unwomen.org/country/kenya>

¹⁴⁶ *ibid.*

¹⁴⁷ *ibid.*

minority group, levels of education/literacy and other factors. In agriculture, women workers not only experience sexual violence and harassment; they often also experience other forms of physical and psychological violence. Some of the main drivers reported for prevalence of sexual GBVH in the agriculture sector includes structures where decision making on performance rests with an individual superior; farming locations which lack alternative employment options, mechanisms to report sexual GBVH and access to sexual GBVH support services; on-site employee accommodation; non-sex segregated changing rooms; and non-lockable sanitary facilities (Henry & Adams, 2018).

84. Gender inequalities rooted in legal and social norms – including unequal access to education, economic opportunities and decision making – and gender differentiated roles and responsibilities dictate how (and if) women and men access and have control over land and resources related to forests, agriculture, water and fisheries (IUCN, 2020). Around Lake Victoria “Fish for sex or sex-for-fish” which is locally known as “the jaboya system” is a common practice that has been documented by several studies¹⁴⁸. Fiorella et al. (2015) reports that along Lake Victoria, changes in access to agriculture for food and income left women particularly vulnerable to transactional “fish for sex” relationships, in areas where there is a high prevalence of HIV. Access to fish by female fish processors and traders is reported to be often dependent on transactional sexual relationships, being linked to migration of fishers away from their families and permanent landing site and consequently to high levels of HIV/ AIDS (Kwena et al., 2020). Some studies have found that male fishers prefer to sell fish to women with the hope of enticing sexual relationships, making women more vulnerable to HIV and AIDS (FISH, 2015; Béné & Merten, 2008). Women that usually engage in “fish for sex”, are socially and economically marginalized and their livelihoods contain risky and insecure components. Transactional sex is associated with high level of HIV prevalence; Zachary et.al (2019) reports that in Kenyan fishing communities of Lake Victoria, there is high HIV prevalence of 32%, with significantly higher prevalence among women (38%) compared to men (29%)¹⁴⁹.

85. In Kenya, the prevalence of sexual exploitation of women by their superiors on tea farms¹⁵⁰ and in flower industry¹⁵¹ have also been documented. For example, a 2015 study on women’s experiences of sexual harassment in the east African cut-flower and horticultural industry found that 90% of Kenyan women workers reported violence and sexual harassment as the biggest challenges they faced (Jacobs et.al., 2015). The tea industry has been the center of attention concerning issues related to sexual harassment (BBC, 2023). Over the last 10 years, tea companies have taken concrete actions to address GBV, which has increased awareness across the industry and aims to reduce the incidence of GBV (IDH, 2017). Private and public sector have also joined efforts, for example, the Ethical Tea Partnership¹⁵² has developed a training programme for supervisors with a strong emphasis on anti-discrimination and harassment; additionally, gender committees have been established to help women workers speak up on a range of issues, including sexual harassment and working conditions.

¹⁴⁸ (i) Béné, C., & Merten, S. 2008. Women and fish-for-sex: Transactional sex, HIV/AIDS and gender in African fisheries. *World Development*, 36(5), 875–899. <https://doi.org/10.1016/j.worlddev.2007.05.010>. (ii) Fiorella et.al. 2015. Transactional Fish-for-Sex Relationships Amid Declining Fish Access in Kenya. *World Development*, 74, 323–332. <https://doi.org/10.1016/j.worlddev.2015.05.015>. (iii) Kwena et.al. 2020. Understanding mobility and sexual risk behaviour among women in fishing communities of Lake Victoria in East Africa: A qualitative study. *BMC Public Health*, 20(1), 944. <https://doi.org/10.1186/s12889-020-09085-7>.

¹⁴⁹ Kwena, Z. A., Njuguna, S. W., Ssetala, A., Seeley, J., Nielsen, L., De Bont, J., Bukusi, E. A., & Lake Victoria Consortium for Health Research (LVCHR) Team (2019). HIV prevalence, spatial distribution and risk factors for HIV infection in the Kenyan fishing communities of Lake Victoria. *PLoS ONE*, 29(5), e0214360. <https://doi.org/10.1016/j.marpol.2004.07.003>

¹⁵⁰ <https://www.stopthetraffik.org/supply-chain-risk-the-endemic-nature-of-sexual-gender-based-violence-and-harassment-in-african-agriculture1/>

¹⁵¹ and https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_630672.pdf

¹⁵² <https://ethicalteapartnership.org/improving-safety-and-opportunities-for-women-in-tea-communities/>

86. According to International Finance Corporation (IFC) addressing GBVH in the agribusiness sector benefits all, provides a safe and healthy workplace that maintains workers' physical and emotional health and wellbeing; increases financial benefits for companies due to lower absenteeism, staff turnover and improved productivity; increases the ability of agribusinesses to recruit and retain female workers who might be wary about GBVH risks, as well as attract women into nontraditional roles; strengthens companies' reputation and avoid financial and legal risks for companies and investors if there are allegations of GBVH (IFC, 2020). Recognizing private, public and non-profit sector need to address gender-based violence and harassment (GBVH) more proactively, different tools and guidelines are available and covers, identifying, understanding, assessing, preventing, responding to and monitoring GBVH, this includes: Addressing Gender-Based Violence and Harassment¹⁵³, Code of practice on safety and health in agriculture¹⁵⁴, Toolkit to address GBV in agriculture and market systems development, companies and farmers organizations are encouraged to implement them.

87. The most recent general elections in Kenya, held in August and October 2017, were the scene of fierce political tensions, giving rise to serious violence, including numerous acts of sexual and gender-based violence (SGBV) (FIDH/KHRC, 2021). In July and December 2018, FIDH and its member organisation in Kenya, KHRC, conducted factfinding missions on election-related SGBV committed in Vihiga, Kisumu and Migori counties. The findings revealed a pattern of sexual violence, including rape, gang rape, and sexual assault, in most cases allegedly committed by male members of security forces.

Other socio-cultural aspects

88. **Political violence:** Political disorder in Kenya often increases during election periods. Armed Conflict Location & Event Data Project (ACLED) has recorded peaks in both political violence and demonstration events during previous election years; so far in 2022, more than 1,060 political disorder events have been reported as of 5 August — already the largest number of incidents recorded for any year since the start of ACLED coverage of Kenya in 1997¹⁵⁵. A report prepared by the National Cohesion and Integration Commission (NCIC) "Conflict Hotspot Mapping Study Report for Kenya"¹⁵⁶, categorizes the counties withing different levels of electoral violence ranging from high risk to low risk. According to this report, the counties within the area of influence of the Project correspond to high risk (Kisumu and Kericho), medium risk (Bomet and Nandi) and the rest of the counties a medium-low.

89. **Refugees and asylum-seekers:** According to UNHCR, the refugee and asylum-seeker population in Kenya stood at 573,508 persons as of 31 December 2022, which comprises 504,485 (89%) refugees and 69,023 (11%) asylum-seekers¹⁵⁷. The report indicates that most of the refugees and asylum seekers in Kenya originate from Somalia (53%) and from South Sudan (25%). Other major nationalities are Congolese (9%), and Ethiopians (6%). Persons of concern from other nationalities, including Burundi, Sudan, Uganda, Eritrea, Rwanda, and others, make up 7% of the total population<https://www.unhcr.org/ke/wp-content/uploads/sites/2/2022/05/Kenya-Infographics-30-April-2022.pdf>. Almost half of the refugees in three main counties, Dadaab, Kakuma and 16% in urban areas of Nairobi; all of which are out of the Project's area of influence.

¹⁵³ https://www.ifc.org/wps/wcm/connect/f1645167-7eff-439b-922b-7656c75320ab/GPN_AddressingGBVH_July2020.pdf?MOD=AJPERES&CVID=nddokiS

¹⁵⁴ https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_159457.pdf

¹⁵⁵ <https://acleddata.com/2022/08/09/kenyas-political-violence-landscape-in-the-lead-up-to-the-2022-elections/>

¹⁵⁶ https://cohesion.or.ke/images/docs/downloads/hotspot_mapping_ncic.pdf

¹⁵⁷ <https://reliefweb.int/report/kenya/kenya-registered-refugees-and-asylum-seekers-31-december-2022>

90. **Civil society and grassroots organizations:** Kenya's civil society is vibrant, with more than 6,000 NGOs registered by the government; they play an important role in many sectors, including in the response to the COVID-19 pandemic most recently, as well as land issues, peace building, security, education, gender equality, health, extractive resources, agriculture, manufacturing, housing and trade (IBAT, 2020). According to the same source, Kenya has a long history of grassroots organizations around the country, engaged in community work and opening fora for people to engage in public life. It has only been in the last decade that a variety of CSOs have slowly proliferated in provincial and county towns.

91. The 2021 World Justice Project's Rule of Law Index¹⁵⁸ suggests that the East African Countries (EAC) region trends below average on key rule of law indicators which include fundamental rights. A per this Index, Kenya is classified as weak on adherence to the rule of law (overall score 0.45), ranking 104/140 countries. Among the 8-factors analyzed under this index, regulatory enforcement, criminal justice, and absence of corruption are the lowest ranked (0.45, 0.39 and 0.27, respectively). A document published Kenya Human Rights Conditions highlights that in the EAC, Kenya, Tanzania and Uganda, suggested that COVID-19 pandemic amplified the constrictions to civil liberties in Kenya, especially with regard to the freedom of speech and assembly, the freedom of the media and the safety of human rights defenders.

4. Legal framework

92. The following section provides an overview of the existing national legislation and nationally signed and ratified international treaties, along with the applicable FAO and GCF safeguards required for the project. The most stringent policy and/or law will be followed in any instances of discrepancy between national legislation and GCF/FAO requirements. In practice, this means that the project will follow national policy and/or law to the extent that it is applicable/relevant, while ensuring that supplementary actions and/or measures are taken if the application of the relevant national policy and/or law is not sufficient to adhere to GCF/FAO requirements. In so doing, the project will ensure that the most stringent standards are consistently adhered to, while still applying (and building directly on) the relevant national policies and/or laws.

93. Kenya has a series of development plans to accomplish its goal to be an industrial, middle-income country, while adapting to climate change. **Vision 2030** is Kenya's development plan and strategies to transform it to a newly industrial middle-income country, capable of providing high quality life to all citizens. **Kenya's Third Medium Term Plan (MTP III) 2018-2022**, themed: "*Transforming Lives: Advancing Socio-Economic Development through the Big Four Agenda*," sets a series of goals: inclusive sustainable economic growth with faster job creation, reduced poverty, and reduced inequality. The MTP III is addressing the negative impacts of climate change by:

- Promoting low carbon climate resilient and green growth development through
- Strengthening climate change governance and coordination
- Strengthening climate change monitoring, reporting and verification, capacity building and public awareness
- Implementing the Green Economy Strategy and Implementation Plan (2016-2030)
- Implementing the National Climate Change Action Plan (2018-2022)

94. **The National Water Master Plan 2030** aims to: A) make improved water and sanitation available and accessible to all by 2030; B) increase area under irrigation to 1.2 million hectares for agriculture; C)

¹⁵⁸ The World Justice Project defines the rule of law as a durable system of laws, institutions, norms, and community commitment that delivers: accountability, just laws, open government, and accessible justice. Available at: <https://worldjusticeproject.org/rule-of-law-index/>

provide Kenya with a clean, secure, and sustainable environment by 2030; and D) increase energy generation and energy efficiency. The **Lake Region Economic Blueprint (2018-2030)** objective is to leverage economies of scale in the region, including shared resources to improve the livelihoods of the people of the counties in the sectors namely agriculture, infrastructure, tourism, education, and health and financial services.

95. Kenya's **Updated Nationally Determined Contribution (NDC)** sets an abatement target of 32% of the business-as-usual (BAU) scenario. Under the BAU scenario, Kenya's projected emissions are projected to increase to approximately 143 MtCO₂ by 2030, which the NDC wants to limit to 32% relative to the BAU. Over the course of the project lifespan, the project would tentatively mitigate a projected 4.32MtCO₂¹⁵⁹. Kenya is implementing measures designed to address climate change both mitigation and adaptation through climate smart agriculture for improving agriculture productivity.

96. The **National Climate Change Action Plan (NCCAP) 2018-2022** sets out several priorities and actions that need to be accomplished: link climate change adaptation with development; improve water conservation by reversing main water towers degradation and rehabilitating all catchments; increase urban and rural domestic water supplies and sewerage services and prioritize improving irrigation, agroforestry, and conservation tillage. The third NCCAP (2023-2027) is currently under preparation.

4.1 Kenya environmental and social legislation

97. This section presents the policy, regulatory and institutional frameworks for environmental and social management in Kenya, along with information of relevant international treaties and convention to which the Government of Kenya adheres to. Kenya has approximately 77 statutes that guide environmental management and conservation. Most of these statutes are sector specific, covering issues such as soil and water conservation, protected areas conservation and management, endangered species, public participation, water rights, water quality, air quality, excessive noise control, vibration control, land use among other issues. The main legislative instruments are summarized as followed:

98. Kenya Policy Framework:

- **National Environmental Policy, 2013:** The policy envisaged on the better quality of life for present and future generations through sustainable management and use of the environment and natural resources. The objectives of this Policy are to: (a) Provide a framework for an integrated approach to planning and sustainable management of environment and natural resources to guarantee the Environmental Right: Every person in Kenya has a right to a clean and healthy environment and a duty to safeguard and enhance the environment. The policy further advocates for a broad public participation in decision making processes is one of the fundamental preconditions for sustainable development. This presupposes access to timely and accurate information on the environment. Sound environmental management must be based on openness and participation at all levels.
- **Agriculture Policy, 2021**¹⁶⁰: The objective of this policy is to attain household and national food and nutrition security through innovative and sustainable interventions linked to the Country's long-term development targets. The National and County Governments will uphold the principle of "food for health, nutrition and national security".

¹⁵⁹ To be confirmed.

¹⁶⁰ <https://kilimo.go.ke/wp-content/uploads/2022/05/Agricultural-Policy-2021.pdf>

- **National Livestock Policy¹⁶¹, 2019:** This policy addresses the challenges in the livestock subsector in the context of livestock breeding, nutrition and feeding, disease control, value addition and marketing, and research and extension. The Policy takes cognizance of the contribution of the livestock value chain including non-conventional livestock species to the country's Gross Domestic Product. The project sub-component on rehabilitating crop and Pastoral Livelihoods should adhere to the policy requirements especially in the restocking of animals, animal nutrition and development of pasture and introduction of crop varieties.
- **National Water Policy 2012:** The National Water Policy of Kenya was developed in 1999 as the National Policy on Water Resources Management and Development (NPWRMD, 1999), and was subsequently amended in 2012. The policy aims to achieve sustainable development and management of the water sector by providing a framework in which the desired targets/goals are set. It outlines the necessary measures to guide the entire range of actions and synchronize all water-related activities and sectors. The NPWRMD sets the following specific policy objectives covering the four basic areas of water resources management, water supply and sewerage development, institutional arrangement and financing of the water sector: i) Preserve, conserve and protect all available water resources and allocate it in a sustainable, rational and economical way; ii) Supply of water of good quality and in sufficient quantities to meet the various water needs including poverty alleviation, while ensuring safe disposal of wastewater and environmental protection; iii) Establish an efficient and effective institutional framework to achieve a systematic development and management of water sector; and iv) Develop a sound and sustainable financing system for effective water resources management, water supply and sanitation development.
- **National Wetland and Conservation Management Policy, 2013:** The development of this Policy is in cognizant of the importance of wetlands at the national level, and of Kenya's obligation to the Ramsar Convention. The policy takes into consideration the broader national environmental frameworks, particularly the Environment Management and Coordination Cap 387, the country's premier framework environmental law, the Water Act 2016, and the Forest Policy 2007. In accordance with principles established within this policy, appropriate mitigation measures shall be implemented to ensure there is no encroachment on protected areas or illegal hunting of wildlife.
- **National Land Use Policy (NLUP)¹⁶² 2012:** The National Land Use Policy guides Kenya towards an environmentally and socially responsible use of land and land-based resources for the socio-economic transformation of the people of Kenya. Its mission is to promote the best land use practices for optimal utilization of the land resource in a productive, efficient, equitable and sustainable manner. The principal objective of the NLUP is to provide legal, administrative, institutional, and technological framework for optimal utilization and productivity of land and land related resources in a sustainable and desirable manner at National, County and Sub-County and other local levels. Project beneficiaries should utilize farms and land resources in a sustainable manner in accordance with Chapter Five of the Constitution of Kenya. The Constitution, under Article 60, requires that land is used in a manner that is equitable, efficient, productive, and sustainable. In addition, Articles 66, 68 and 69 provide for regulation of land uses, sustainable exploitation, utilization, management and conservation of the environment and natural resources.

¹⁶¹ <https://repository.kippra.or.ke/handle/123456789/483>

¹⁶² <https://faolex.fao.org/docs/pdf/ken181087.pdf>

- **National Food and Nutrition Security Policy (NFSP), 2017:** The policy aims to meet the nutritional needs of all Kenyans through provision of a sufficient supply of food and safe water. The broad objectives of the NFSP are: i) To achieve adequate nutrition for optimum health of all Kenyans; ii) To increase the quantity and quality of food available, accessible, and affordable to all Kenyans at all times; and iii) To protect vulnerable populations using innovative and cost-effective safety nets linked to long-term development. In addition, a **Kenya National Nutrition Action Plan 2018-2022 (KNAP¹⁶³)** was developed, this is the second National Nutrition Action Plan that operationalizes the National Food and Nutrition Security Policy. The KNAP is a framework that spells out the investment required for Kenya to address malnutrition in all its forms and for all ages. The plan adopts a multisectoral approach and promotes cross-sectoral collaboration to address the social determinants of malnutrition sustainably. The three basic rationales for the action plan are: (a) the health consequences – improved nutrition status leads to a healthier population and enhanced quality of life; (b) economic consequences – improved nutrition and health is the foundation for rapid economic growth; and (c) the ethical argument – optimal nutrition is a human right.
- **The National Occupational Safety and Health Policy, 2012:** The main objective of this policy is to establish national occupational safety and health systems and programmes geared towards the improvement of the work environment. The Policy seeks to reduce the number of work-related accidents and diseases, and to provide compensation and rehabilitation to those who may be injured at work or contract occupational diseases. Main specific objectives of this are: i) To guide the development of laws, regulations and any other instruments on occupational safety and health; ii) To recommend establishment and strengthening of responsible and accountable institutions for management of occupational safety and health; iii) To recommend an enforcement and compliance mechanisms for occupational safety and health laws and regulations; iv) To create mechanisms for cooperation between employers, workers and their representatives at workplaces in the promotion of occupational safety and health; v) To strengthen capacities of state and non-state actors in occupational safety and health; and vi) To create a resource mobilization mechanism for the implementation of this Policy.
- **National Social Protection Policy, 2011:** This policy aims at ensuring that all Kenyans attain social and economic development as provided in Article 43 of the Constitution. The policy provides the framework for social assistance, social security, and health insurance. The Policy document acknowledges poverty as a hindrance to social development and observes that subsistence economies in areas with declining soil productivity and large households are likely to compete for various land uses. Social protection policy issues include safety nets and consumption transfers to sustain livelihoods and build human capital, and protection of assets and their rehabilitation to re-establish livelihoods.
- **National Policy on the Elimination of Child Labor (2016):** Proposes strategies to prevent, identify, withdraw, rehabilitate, and reintegrate children involved in child labor, including its worst forms. (66) Under this policy, the government has established 12 out of 13 desired child labor-free zones. (28) Research was unable to determine whether activities were undertaken to implement the National Policy on the Elimination of Child Labor during the reporting period.
- **National Employment Policy (2017):** Mandates reporting on the number of children withdrawn from child labor and the progress of child labor free zones. (40) Research was unable to determine whether activities were taken to implement the National Employment Policy during the reporting period

¹⁶³ Available at: <https://scalingupnutrition.org/wp-content/uploads/2020/10/Kenya-National-Nutrition-Action-Plan-2018-22.pdf>

- **County Public Participation Guidelines**¹⁶⁴: -Every state actor is required to apply the national values and principles whenever they formulate, implement, or interpret laws and policies. A complementary right is the right to access information in the CoK *Article 35*¹⁶⁵.
- **Kenya Youth Development Policy**¹⁶⁶ **2019**: This policy aims at ensuring adequate youth development and empowerment while harnessing their potential for productive engagement at local, county, national and international levels. Some of the specific objectives include: i) Build qualified and competent youth workforce for sustained development; ii) Create opportunities for youth to earn decent and sustainable livelihoods; iii) Support youth engagement in environmental management for sustainable development; iv) Promote and develop entrepreneurial culture among the youth through access to subsidized loans, training, mentorship, internships, attachments, business incubation and partnerships, others. The associated priority areas for Policy intervention include a) Supporting youth development, health, nutrition, and wellbeing; b) Investing in education, training, and skills development; c) Addressing youth unemployment, underemployment, and inactivity; d) Ensuring sustainable financing of youth programmes; e) Transforming agriculture & agri-business to make it attractive to youth, others.

99. Legislative Frameworks

- **The Constitution of Kenya, 2010**: Article 42 of the Bill of Rights of the Kenyan Constitution provides that ‘every Kenyan has the right to a clean and healthy environment, which includes the right to have the environment protected for the benefit of present and future generations through legislative and other measures. In addition to the Economic and social rights: Article 43. (1) Every person has the right to education. The CoK has entrenched a strong bill of rights which recognizes the rights of all persons including the vulnerable and marginalized; environmental and developmental rights; and key national values and principles that must be integrated in policies, laws, and service delivery processes. The CoK (Article 21.3) - specific provisions on social inclusion especially of VMGs include: affirmative action programs and policies for minorities and marginalized groups (Articles 27.6 and 56).
- **The National Climate Change Act, 2016**: Paragraph 2 of Section 3¹⁶⁷ (which lays out specifically how the Act will affect Kenya’s climate change response), mandates the formulation of programs and projects to enhance resilience that are intergenerationally, and gender equity mainstreamed, while also contributing to disaster risk reduction. This paragraph also stipulates the need to promote low carbon technologies. All points are supported by the project’s activities. The Act of 2016 also follows the decentralization framework. The Act establishes the Climate Change Directorate, which coordinates and facilitates climate change adaptation policies and action plans government agencies between counties, and county level climate change units. The project interacts with the climate change units in all the county governments of the 14 targeted counties.
- **Pest Control Products Act, 2012**: This Act (Cap. 346, 2012) requires that all chemicals used in any agricultural undertaking are registered by the Pest Control Products Board (PCPB). All pest control products sold in Kenya must bear a label showing a PCPB registration number. Under this Act, there are several pesticides whose use is banned in Kenya. The Act stipulates further that training in the use of pesticides must be carried out by PCPB accredited institutions and persons. All pesticide storage and handling arrangements must be inspected and licensed under the Act. In

¹⁶⁴ County Public Participation Guidelines, at pg. (vii)

¹⁶⁵ Article 35(1)(a) and (b)

¹⁶⁶ <https://faolex.fao.org/docs/pdf/ken205915.pdf>

¹⁶⁷ Section 3 of the Climate Change Act of 2016, Paragraph 1 states “This Act shall be applied for the development, management, implementation and regulation of mechanism to enhance climate change resilience and low carbon development for the sustainable development of Kenya.”

accordance with these requirements, the project should carry out training and sensitization of all beneficiaries in the use of permitted agricultural biopesticides.

- Migratory and Invasive Pests and Weed Management Strategy (M&IPWM) 2022-2027. This strategy provides a proactive approach in managing these pests and weeds to reduce their devastating effect on agriculture and negative impact on livelihoods.
- **The Water Act, 2016:** The Water Act of 2016 establishes the Water Cabinet Secretary as the overseer of Kenya's water resources. In addition to establishing the Secretariat, the Act designates that all Kenyans have the right to water resources. While the Act mandates the development of a National Water Resource Strategy every five years, no strategy appears to have been developed. Regardless of the existence of a Strategy, the Act enshrines the rights of all Kenyans to water resources. **Lakes and Rivers Act (Cap 409):** This Act provides for protection of rivers, lakes and associated flora and fauna. The provisions of this Act may be applied to the project if the activities: occur within the vicinity of riverbanks; involve the use of agrochemicals; or create a risk of soil erosion.
- **Energy Act¹⁶⁸, 2019:** Kenya's 2019 energy act lays out the reporting and institutional framework for developing Kenya's electrical infrastructure. The Energy Act firmly commits provision of electricity is the national government's responsibility and must be provided in an equitable manner. The Act stipulates in paragraphs 73 – 93 that renewable energy inventories and maps to help identify areas where renewables can be fully exploit are to be prepared. Controversially, biomass, biodiesel, bioethanol, charcoal, and fuelwood are considered by the Kenyan government as renewables. This project disagrees with the Kenyan government as the fuel sources' output are GHG emissions. Energy technologies that do not promote GHG emissions daily, i.e., solar, wind, and micro-dams, are considered renewables.
- **Forest Conservation and Management Act (FCMA)¹⁶⁹, 2016:** The FCMA mandates that every five years, a forestry management plan be reviewed, and that 10 percent of Kenya's land must be forested, as well as the functional responsibility for management of Kenya's forest reserves by national and county governments.
- **Urban Areas and Cities Act, 2011¹⁷⁰:** An act of Parliament to give effect to Article 184 of the Constitution; to provide for the classification, governance and management of urban areas and cities; to provide for the criteria of establishing urban areas, to provide for the principle of governance and participation of residents and for connected purposes.
- **Environmental and Land Court, 2011¹⁷¹:** The principal objective of the Environmental and Land Court is to give effect to 162(2) of the Constitution and establish a court where disputes relating to the environment and the use, occupation, and titling to land would be heard. A major component of the project is assisting the county governments in knowing the ownership of land within their counties. Farming organizations formed in Component 3 may acquire or consolidate land holdings, which will require knowledge of the original title holder. While we do not anticipate any cases at all, in cases of dispute, the county governments will be the lead as it is outside the project's purview.

¹⁶⁸ <https://www.epra.go.ke/download/the-energy-act-2019/>

¹⁶⁹ <https://faolex.fao.org/docs/pdf/ken160882.pdf>

¹⁷⁰ <https://www.devolutionhub.or.ke/resource/urban-areas-and-cities-act-2011#:~:text=AN%20ACT%20of%20Parliament%20to,residents%20and%20for%20connected%20purposes>

¹⁷¹ http://www.parliament.go.ke/sites/default/files/2017-05/EnvironmentandLandCourtAct_No19of2011.pdf; <https://www.judiciary.go.ke/courts/environment-and-land-court/#:~:text=The%20Environment%20and%20Land%20Court%20Act%20no.,court%20exercises%20jurisdiction%20throughout%20Kenya.>

- **Land Act, 2012**¹⁷²: The Land Act provides the Kenyan Parliament the ability to sustainability administers and manage land and land-based resources. Moreover, the Act provide three classifications of land as public land, private land, and community land.
- **Community Land Act, 2016**¹⁷³: gives effect to Article 63 (5) of the Constitution: i) to provide for the recognition, protection, and registration of community land rights; ii) management and administration of community land; iii) role of county governments in relation to unregistered community land and related matters. This Act makes provision for the recognition, protection and registration of community land rights and provides for conversion of community land, special rights, and entitlements with respect to community land, environment and natural resources management of community land and settlement of disputes relating to community land. In the performance of the functions and exercise of powers under this Act, every person dealing with community land shall be guided principles and values set out in the Constitution.
- **National Land Commission Act, 2012**¹⁷⁴ : This Act establishes the National Land Commission, who will manage public lands on behalf of the national and county governments. A key aspect of the Act is the Commissions encouraging traditional dispute resolution mechanisms in land conflicts.
- **The Protected Areas Act, 1949**¹⁷⁵: The Protected Areas Act provides the Prime Minister to declare in the interest of public safety or order, areas in which access will be limited to authorize persons.
- **Environmental Management and Coordination Act, 1999 (Amendment 2015)**: The Act empowers the National Environment Management Authority (NEMA) to exercise general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of government in the implementation of all policies related to the environment. The Second Schedule to the Act specifies the projects for which an ESIA or environmental audit must be carried out. NEMA must license surface water use, abstraction, and effluent discharge after review of any proposed activities; the regulations also mandate NEMA to monitor sources of water at least twice every year. These Regulations provide standards for the transportation and disposal of industrial waste, toxic waste, pesticides, biomedical waste, and radioactive waste.
- **Environmental (Impact Assessment and Audit) Regulations, 2019**: This regulation provides guidelines to govern the conduct of Environmental Assessment and Audits in Kenya. Section 3 indicates that the regulations apply to policies, plans, programs, projects, and activities specified in Part IV, Part V and 2nd schedule of the Act.
- **The Natural Resources (Classes of Transactions Subject to Ratification) Act (NRCTSR)**¹⁷⁶, 2016: The NRCTSR Act mandates certain rights or concessions regarding transactions that must be ratified by Parliament. Transactions that require Parliament's approval are with the rights, use, and exploitation of natural resources primarily for economic purposes but can include scientific research.
- **Wildlife (Conservation and Management) Act**: Provides for the establishment and protection of game parks and reserves, including wetlands. The Act prohibits activities that might hamper the proper management of wildlife and their habitats, which include activities such as deforestation, cultivation of land or grazing livestock within a national parks or game reserves.
- **Occupational Health and Safety Act, 2007**: This Act provides for the safety, health and welfare of all workers and all persons lawfully present at workplaces. It applies to all workplaces where any person is at work, whether temporarily or permanently. **Work Injury Benefits Act, 2007**: This Act

¹⁷² <http://www.parliament.go.ke/sites/default/files/2017-05/LandAct2012.pdf>

¹⁷³ <http://kenyalaw.org/8181/exist/rest/db/kenyalaw/Kenya/Legislation/English/Acts%20and%20Regulations/C/Community%20Land%20Act%20-%20No.%2027%20of%202016/docs/CommunityLandAct27of2016.pdf>

¹⁷⁴ <https://www.ecolex.org/details/legislation/national-land-commission-act-2012-no-5-of-2012-lex-faoc112132/>

¹⁷⁵ <https://www.ecolex.org/details/legislation/protected-areas-act-cap-204-lex-faoc106269/>

¹⁷⁶ Retrieved from: <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC160884/>

provides for compensation to employees for work related injuries and diseases contracted in the course of their employment and for connected purposes.

- **Cooperative Societies Act, Chapter 490, Revised 2005:** Cooperative Societies Act, Chapter 490, revised 2005 relates to the “...Constitution, registration, and regulation of cooperatives societies and for purposes incidental thereto”. Cooperatives are a central pillar of this project’s technology transfer strategy.
- **The County Government Act No. 17 of 2012:** Part II of the Act empowers the County Governments to be in charge of planning by coordinating and ensuring integrated planning within the county, these functions include: control of air pollution, noise pollution, other public nuisances and outdoor advertising. The County PCU, as well as County Environment, Livestock and Agriculture Department (Agricultural Officer, Environment Officer, Livestock officer, water resource authority (WRA), and Forest Officer) among others are responsible of guiding the community beneficiaries to guarantee proper implementation of the project.
- **Persons with Disabilities Act:** Outlines the following entitlements: (1) a legitimate expectation of being able to enjoy *accessibility and mobility*;¹⁷⁷ (2) a legitimate expectation of being able to access *public buildings* (that must now be adapted to suit needs of PWDs); and (3) a legitimate expectation of being able to access *public service vehicles* (that must now be adapted to suit needs of PWDs).
- **Employment Act 2019:** The Act defines the fundamental rights of employees; provides basic conditions of employment of employees; regulates employment of children; and provides for matters connected with the foregoing. The Act includes provisions related to prohibition against forced and or child Labor, discrimination in employment, sexual harassment, signed contract for Laborers, employees’ rights, duties’, wages, and salaries due and protection of children. The Act outlines the minimum rights bestowed upon employees, and another dedicated to the requisite elements of the *Policy Statement on Sexual Harassment*.¹⁷⁸ Other relevant regulations include the Employment and Labor Relations Court Act, Labor Relations Act.
- **Public participation Act, 2018:** 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.

100. There are several legal frameworks to promote, enforce and monitor equality and non-discrimination based on sex. These include: The Constitution of Kenya, 2010, Article 23; National Gender and Equality Commission Act, No. 15 of 2011, Section 8; The Prohibition of FGM Act, 2011; Prevention against Domestic Violence Act, 2015.⁶⁷ At the regional level, Kenya has ratified the following commitments: the AU Charter and its Protocol on Human and People’s Rights on the Rights of Women in Africa (2003); and as a member of the Intergovernmental Authority on Development (IGAD), it recognizes that there are sharp gender inequalities in access to key productive assets including: land, labor, financial services, technology, and inputs; coupled with education and health care.⁶⁵ Despite these commitments, challenges for gender statistics persist in the country, as producers and users are not adequately coordinated. There is a need to harmonize methods and standards across producers and users of gender statistics in Kenya to address the gaps in sex-disaggregated and gender-specific statistics. Detailed description of Legal and Policy Framework for promotion of gender equality in Kenya can be referenced in Annex 8 “Gender Assessment”.

¹⁷⁷ Section 21, 22 and 23 of the *Persons with Disabilities Act*, [Act No 14 of 2003]

¹⁷⁸ 1st Schedule, of the *Employment (General) Rules*, 2014 [Act No 11 of 2007]

101. The above laws and regulations provide guidance in areas pertaining to environmental impact assessment, environmental protection, the agriculture sector, water management, indigenous rights, cultural heritage, land tenancy/reform, women's rights, rights-of-way, just compensation, and infrastructure development.

4.2 Relevant international conventions and treaties

102. Kenya is a signatory of several international legal frameworks and agreements and as such, has a legal obligation to its people to implement the same. These treaties and conventions may be directly or indirectly applicable to the proposed sub-projects' operations and processes in the selected countries. International legal framework signed by Kenya and relevant for the right of indigenous communities includes:

- United Nations Framework Convention on Climate Change (UNFCCC)
- Paris Agreement
- Nagoya Protocol
- International Convention on Biological Diversity (CBD)
- Agreement of the Conservation of Eurasian Migratory Water Birds
- Convention on International Trade in Endangered Species of Wildlife Fauna and Flora (CITES)
- Convention on Wetlands of International Importance especially as Waterfowl Habitat
- Rotterdam, Basel, and Stockholm Convention
- The Montreal Protocol on substances that deplete the ozone layer and
- The Cartagena Protocol on Biotechnology
- World Heritage Convention
- United Nations on the Rights of the Child (UN-CRC)
- UN CRC Optional Protocol on the Sale of Children, Child Prostitution and Child Pornography
- UN CRC Optional Protocol on Armed Conflict
- United Nations Declaration on the Rights of Indigenous People (UNDRIP)
- Convention on the Elimination all forms of Racial Discrimination (CERD)
- Convention on the Elimination of Discrimination against Women (CEDAW)
- Convention on the Rights of Persons with Disabilities (CROD)
- Convention on the Protection and Promotion of the Diversity of Cultural Expressions
- Convention on the Rights of the Child (CRC)
- International Covenant on Civil and Political Rights (ICCPR)
- International Labor Organization (ILO) Convention No. 169
- International Labor Organization (ILO) Convention No. 111
- ILO C. 182, Worst Forms of Child Labor
- Convention concerning Forced or Compulsory Labor
- Equal Remuneration Convention
- Abolition of Forced Labor Convention
- Palermo Protocol on Trafficking Persons
- Discrimination (Employment and Occupation) Convention
- International Convention on Economic, Social and Cultural Rights (ICESCR)
- International Convention on the Elimination of All Forms of Racial Discrimination (ICERD)
- FAO: International Code of Conduct on the Distribution and Use of Pesticides

103. There are multiple international instruments, policies and declarations that require states to develop gender-transformative programmes and policies. Article 2(6) of the Constitution of Kenya (2010) compels the Government to implement the obligations of the international treaties it has ratified. These

include: the 1994 International Conference on Population and Development (ICPD) Programme of Action; the Programme of Action of the World Summit on Social Development (1995) and its review held in 2009; the BPfA (1995); the United Nations Commission on the Status of Women; the Joint United Nations Programme on HIV/AIDS (UNAIDS) Action Framework on Women, Girls, Gender Equality and HIV (2009); and CEDAW. While progress has been made in domesticating international treaties and conventions, the implementation and monitoring of some of these remains weak.

4.3 Relevant FAO and GCF Policies

GCF Environmental and Social Safeguards

104. In carrying out its mandate the GCF has committed to manage environmental and social risks and impacts and improve outcomes of all GCF-financed activities effectively and equitably. The GCF adopted the [International Financial Corporation \(IFC\) Performance Standards on Environmental and Social Sustainability](#) as their interim framework. The IFC Performance standards are comprised of 8 standards that cover the main environmental and social considerations that must be safeguarded when designing and implementing a project or program: assessment and management of environmental and social risks and impacts; labor and working conditions; resource efficiency and pollution prevention; community health, safety, and security; land acquisition and involuntary resettlement; biodiversity conservation and sustainable management of living natural resources; Indigenous Peoples; and cultural heritage. Moreover, the GCF has developed and adopted a series of policies that all accredited entities shall comply with:

- **GCF Revised Environmental and Social Policy (2021)** requires that the accredited entities provide and implement the environmental and social management system to manage the environmental and social risks and impacts associated with the activities, allow meaningful and inclusive multi-stakeholder consultation and engagement throughout the lifecycle of activities and that the activities proposed for GCF financing are properly screened, assigned appropriate environmental and social risk categories and that the environmental and social risks and impacts are properly and sufficiently assessed.
- **GCF Policy on the Protection of Whistleblowers and Witnesses (2018)** aims to empower GCF-project related persons to report suspicions of wrongdoing in good faith and without fear of retaliation so that the GCF can effectively protect its interests, resources, and mission.
- **GCF Gender Policy (2019)** reinforces the responsiveness of GCF to the culturally diverse context of gender equality to better address and account for the links between gender equality and climate change.
- **GCF Indigenous Peoples Policy** recognizes that Indigenous Peoples often have identities and aspirations that are distinct from mainstream groups in national societies and are disadvantaged by traditional models of mitigation, adaptation, and development. In many instances, they are among the most economically marginalized and vulnerable segments of the population, and in many cases, they do not receive equitable access to project benefits, or benefits are not devised or delivered in a form that is culturally appropriate. The economic, social, and legal status of Indigenous Peoples frequently limit their capacity to defend their rights to, and interests in, land, territories, and natural and cultural resources, and may restrict their ability to participate in and benefit from development initiatives and climate change actions.
- **GCF Revised Policy on the Prevention and Protection from Sexual Exploitation, Sexual Abuse, and Sexual Harassment (SEAH 2021)** sets clear obligations for GCF-project related persons to prevent and respond to SEAH and to refrain from condoning, encouraging, participating in, or engaging in SEAH.

- **GCF Policy on Prohibited Activities (2019)** prohibits GCF-project related persons to engage in: corrupt, fraudulent, coercive, collusive, or obstructive practices; or abuse, etc. to maintain the highest levels of integrity, accountability, and efficiency.

FAO Environmental and Social Safeguards

105. FAO is committed to mainstreaming sustainability in its programming and therefore has developed and adopted a series of tools and systems to improve the environmental and social performance of their activities and projects, strengthening the inclusiveness, resilience, sustainability, and accountability of its programming. Recently (2022) FAO adopted the [Framework for Environmental and Social Management \(FESM\)](#), which replaces the [Environmental and Social Management Guidelines](#) (adopted in 2015), and is complementary to the [Compliance Reviews Following Complaints Related to the Organization's Environmental and Social Standards Guidelines](#). The FESM establishes environmental and social performance requirements for FAO programming. It includes key elements of a human rights-based approach with the goal to ensure that people and the environment are protected from any potential adverse impacts of FAO programmes and projects, that all stakeholders have ample opportunities to actively participate in the activities of programmes and projects and have access to effective channels to voice their concerns about them.

106. The FAO E&S framework is underpinned by nine environmental and social standards (ESS), which reflect the organization's commitment to mainstream social and environmental sustainability in programmes and projects including: innovative process of climate change and disaster risk screening to identify potential risks, mitigation and resilience measures; requirements to conserve and restore renewable natural resources and biodiversity; protect animal welfare; foster resilient livelihoods; manage wastes and non-pesticide hazardous materials; promote resource efficiency; protect community health and promote decent jobs; strengthen requirements for dealing with gender-based violence including the prevention of sexual exploitation and abuse (PSEA); respect Indigenous Peoples living in voluntary isolation; and enhance accountability, conflict resolution and grievance mechanisms:

- **ESS1 Biodiversity conservation, and sustainable management of natural resources** supports the objectives of the CBD: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. In addition, ESS 1 elaborates a range of actions to avoid and minimize adverse impacts to terrestrial, freshwater, and marine biodiversity, ecosystems, and genetic resources.
- **ESS 2 Resource efficiency and pollution prevention and management:** recognizes that resource efficiency and pollution prevention and management are core elements of a sustainable development agenda. For this reason, FAO programmes and projects shall meet good international practice in this regard. The mitigation of greenhouse gas emissions and adaptation to the impacts of climate change are essential to increasing efficiency in the use of resources and building resilience.
- **ESS 3 Climate change and disaster risk reduction:** aims at reducing and managing potential risks that may arise from climate change, and other multiple and often simultaneous hazards. It also provides guidance on how to reduce risks and increase the adaptive capacities of threatened and affected communities and their agri-food systems.
- **ESS 4 Decent work:** support the implementation of internationally accepted labor standards. prioritizing decent work. This standard recognizes that promoting decent work, preventing the use of child labor, exploitation, including sexual exploitation and forced labor is essential to achieving food security and reducing poverty. Furthermore, it includes the measures to ensure occupational health and safety are addressed in ESS 4 – Decent Work.

- **ESS 5 Community health, safety, and security:** The requirements in ESS 5 address the need to avoid health and safety risks and the impacts of the health and safety hazards that may arise from the activities undertaken by FAO programmes and projects, and where avoidance is not possible, minimize and mitigate these risks and impacts. Particular attention is given to marginalized, disadvantaged and vulnerable groups.
- **ESS 6 Gender equality and prevention of gender-based violence:** aims at ensuring that the design and implementation of FAO programmes and projects do not create or exacerbate existing gender inequalities and discrimination reflecting the Organization's alignment with international frameworks on gender equality and women and girls' empowerment. ESS 6 is consistent with the principles set out in the United Nations Development Cooperation Framework and it's aligned with the overarching principle, 'leave no one behind', that unifies all United Nations programming efforts.
- **ESS 7 Land tenure, displacement, and resettlement:** FAO shall seek to avoid involuntary resettlement in activities it supports or implements wherever possible. However, FAO may be called upon to support activities that lead to involuntary resettlement shall be undertaken only in exceptional circumstances (e.g. responses to climate change and emergencies). Such activities should be carried out in accordance with the principles of the VGGT¹⁷⁹ and for the purpose of promoting the general welfare. Appropriate forms of compensation, assistance, legal protection, and information will be provided to the affected individuals and communities.
- **ESS 8 Indigenous Peoples:** recognizes that traditions and knowledge of Indigenous Peoples provide opportunities to overcome many of the challenges we are facing. Indigenous knowledge and food systems are of particular significance in the face of increasing food demand and adaptation to climate change. ESS 8 follows international legal agreements, including the United Nations 2007 Declaration on the Rights of Indigenous Peoples (UNDRIP) and the 1989 ILO Indigenous and Tribal Peoples Convention (No. 169), the FAO Policy on Indigenous and Tribal Peoples (2010)
- **ESS 9 Cultural heritage:** aims to facilitate the preservation, protection, and promotion of cultural heritage in FAO programming in a manner consistent with UNESCO cultural heritage conventions, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and any other national or international legal instruments that might have a bearing on the use of cultural heritage. FAO has pioneered international recognition of the concept of farmers' rights, which are linked to the traditional knowledge of farmers and indigenous and local communities. The ITPGRFA is the first international legally binding instrument that endorses these rights and acknowledges farmers' contributions to the conservation and development of plant genetic resources.

107. Furthermore, FAO has a set of policies set in place to support the implementation of its environmental and social safeguard.

- **Framework for Environmental and Social Management** (FESM¹⁸⁰), establishes environmental and social performance requirements for FAO programming. It includes key elements of a human rights-based approach with the goal to ensure that people and the environment are protected from any potential adverse impacts of FAO programmes and projects, that all stakeholders have ample opportunities to actively participate in the activities of programmes and projects and have access to effective channels to voice their concerns about them. In addition, this framework

¹⁷⁹ VGGT: Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security

¹⁸⁰ The FESM was adopted in June 2022, it replaces the [Environmental and Social Management Guidelines](#) (2015) and is complementary to the [Compliance Reviews Following Complaints Related to the Organization's Environmental and Social Standards Guidelines](#).

comes to enforces FAO zero-tolerance approach to sexual exploitation, abuse, and harassment, and seek to identify and address any risk of potential exposure of affected people to gender-based violence (GBV) and other abuse that may occur in connection with any of its supported activities.

- **FAO Accountability Policy (2014).** FAO is committed to designing and operating its approach to accountability, based on FAO's core values of commitment, respect for all, integrity and transparency, and according to the following principles: (i) Focus on FAO's purpose and outcomes for beneficiaries and partners; (ii) Define clear roles and responsibilities; (iii) Take informed and transparent decisions and communicate clearly, providing the basis for acting with a focus on outcomes and within clearly defined roles; (iv) Put FAO's values into practice through consistent application of a shared ethos and culture in the development of policy and the behavior of employees; (v) Engage with stakeholders to make accountability real; (vi) Establish a culture of consequences - to be meaningful, accountability must be felt.
- **FAO whistleblower protection policy** (administrative circular N°2021/10) applying to any FAO personnel when internal or external reporting according to the consideration of the circular. This Policy is aligned with best practices across the United Nations common system and aims to foster a culture of trust and ethical conduct in the Organization.
- **FAO Policy on Gender Equality 2020-2030** strives to achieve equality between women and men in sustainable agriculture and rural development for the elimination of hunger and poverty.
- **FAO Protection from sexual exploitation and sexual abuse** (PSAE) N° 2013/27. The principles of integrity, professionalism, respect for human rights and the dignity of all peoples underpin FAO's commitment to preventing and addressing acts of sexual exploitation and abuse (SEA)
- **FAO Policy on the prevention of harassment, sexual harassment, and abuse of authority** N° 2015/03 (2015) and FAO policy on sexual harassment (13 February 2019) which states Sexual Harassment in all its forms is contrary to the United Nations Charter, the Staff Regulations and Staff Rules of the Organization and the Standards of Conduct for the International Civil Service.
- **FAO Policy against fraud and other corrupt practices** N° 2015/08 (2015) Fraud and other corrupt practices pose a grave threat to the effective implementation of the Organization's policies and objectives.

108. **Correspondence between GCF and FAO safeguards:** As well as the GCF, all FAO projects follow the risk mitigation hierarchy to ensure that any environmental and social risks and potential adverse impacts are anticipated and avoid, or where avoidance is not possible, minimize, and, where residual impacts remain, compensate/offset for risks and impacts to the community or the environment. As an accredited entity to the GCF, FAO Environmental and Social Safeguards (ESS 1-9) are aligned with the GCF-IFC performance standards Table 4.

Table 4 IFC Performance Standards & corresponding FAO Environmental and Social Safeguard

IFC Performance Standards (PS)	FAO Environmental and Social Safeguards
PS 1 – Assessment and Management of Environmental and Social Risks and Impacts	ESS 3 - Climate change and disaster risk reduction ESS 6 – Gender Equality and prevention of gender-based violence
PS2 – Labor and Working Conditions	ESS 4 – Decent Work
PS3 – Resource Efficiency and Pollution Prevention	ESS 2 – Resource efficiency and pollution prevention and management (covers pest & pesticide management)
PS4 – Community, Health, Safety, and Security	ESS 5 – Community health, safety, and security

IFC Performance Standards (PS)	FAO Environmental and Social Safeguards
PS5 – Land Acquisition and Involuntary Resettlement	ESS 7 – Land tenure, displacement, and Resettlement
PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources	ESS1 - Biodiversity conservation, and sustainable management of natural resources (covers plant and animal genetic resources)
PS7 – Indigenous Peoples	ESS 8 - Indigenous Peoples
PS8 – Cultural Heritage	ESS9 - Cultural Heritage

Source: Authors' own elaboration.

5. Stakeholder engagement

5.1 Stakeholder identification and consultation

109. This project has adopted an active stakeholder engagement strategy since its inception and throughout development and design following a bottom-up approach that is aligned to the devolution process in Kenya. Particular attention has been paid to identifying key stakeholders and involving them meaningfully and at the right time, to ensure their advice, knowledge and inputs are duly considered in all aspects of this project. Stakeholder engagement is fully mainstreamed in all project activities.

110. A participatory process for the design of this project was conducted starting in late 2021, culminating in April 2023. This process involved gathering ideas, suggestions, inputs, and contributions from stakeholders identified above, including farmers, county governments, development partners and others. The first design mission was conducted on 9-15 December 2021 and included discussions with the following partners, who provided advice on design, lessons learned and contributed to the formulation of the Theory of Change. Key participants in early discussions included¹:

- **Farmers:** individual smallholder farmers involved in the six value chains namely coffee, tea, dairy, African leafy vegetables, fruit trees and poultry. Farmers are direct and indirect beneficiaries of the project. The project also identified vulnerable groups whose participation in project activities will be the object of particular attention: women, youth, persons living with disabilities, and persons from Indigenous Peoples or ethnic and religious minorities.
- **Farmer organizations & value chain actors:** this includes informal self-help groups, business units, farming groups, community forest associations, farmer field schools and cooperatives in the six value chains, as well as value chain actors not involved in production, such as buyers, transporters, wholesalers, input and service providers. Farmer organizations are also direct and indirect beneficiaries of the project.
- **County governments:** This includes county Council Assemblies, Governors, and public administration in all the devolved sectors. This also includes ward-level decentralized administration and services. Counties are direct beneficiaries of the project, as well as executing entities and implementing partners.
- **Regional (LREB) institutions:** including the LREB secretariat and relevant caucuses such as agriculture, water and environment; LREB Centre of excellence in Agriculture and Water; the Lake Region Development Authority; Lake Victoria North and South Water Service Boards, as well as knowledge sharing platforms on various sectors. Regional institutions play a key role in upscaling and knowledge sharing.
- **National Government Departments:** The National Treasury (NT); State department of Agriculture; State Department of Cooperatives; Ministry of Environment, Climate Change and Forestry; Kenya

Meteorological Department, Kenya Agricultural and Livestock Research Organization (KALRO); Department of Resource Survey and Resource Survey, among others.

- Non-state actors: such as Non-Governmental Organizations, civil society organizations (CSOs), Faith Based Organizations, community leadership, associations, the private sector, academic and research institutions, and media.
- International organizations: This includes development partners working or implementing projects in the LREB (e.g. World Bank, IFAD, other UN agencies, The Government of Denmark, Netherlands, GEF, etc).
- Financial institutions: This includes community based credit and savings cooperatives, savings groups, as well as formal lending and grantmaking institutions (e.g. Banks, micro-finance institutions).

111. A LREB stakeholder workshop was held on the 9th of December 2021 in Kisumu bringing together over 90 participants from all counties. The Theory of Change and proposed activities and general orientations of the project were discussed. The workshop participants confirmed individual counties interest in pursuing the proposed work which present huge opportunities for LREB in terms of reducing vulnerability of local communities and improving sustainability of natural resources on which majority of the population depends. Participants were, over 100 women and men in all, county government officials including County Executive Committee (CEC) members; Chief Officers and Directors, representatives from Agriculture departments. Universities and research institutions from the region also participated in the meeting. The workshop also conducted a participatory Value Chain prioritization exercise in which each county was asked to rank the value chains present in their territory against the selection criteria. A follow up consultative meeting with the LREB leadership including the chair and governors was held on the 14th February 2022 at the Grand Royal Swiss Hotel in Kisumu, where all the 14 Counties agreed to co-finance the project using their County Climate Change Fund (CCCCF) allocations. A joint communique between FAO and the LREB to this effect was issued at the end of the meeting.

112. The **county institutional capacity assessment** was carried out between the 7th and 16th March 2022 to determine the policy and human resource capacities of the 14 LREB counties to address climate related challenges in the agriculture sector. It also assessed the availability of climate information to support proposed interventions under the project. The assessment involved group interviews mostly with directors from departments of Agriculture, Climate Change/Environment, Cooperatives and Water in each of the 14 counties.

113. **Cooperative Census and Climate Change Survey:** A comprehensive cooperative census was carried out in August-November 2022 to identify potential beneficiaries in the value chains and assess their capacity needs regarding climate resilient, low-carbon agriculture. The census was conducted in two steps: first, a series of phone calls were made to identify and provide preliminary contact information for all cooperatives in the region. Second, enumerators were dispatched to visit each of the cooperatives to administer a comprehensive survey that included questions about baseline capacity including: finance, governance, and climate. The climate Change Survey was developed by the project design team to collect further data on climate vulnerability, perception of climate change, and existing climate risk management practices. The survey was administered to farmers within cooperatives and farmers outside of cooperatives (149 respondents). Key findings were used in the climate risk assessment (Part A2 of this funding proposal) and to inform the proposed activities under component 3.

114. **Community consultations:** This section summarizes the discussions from community consultative meetings held across eight Lake Region Economic Bloc (LREB) counties namely Bungoma, Kakamega, Kericho, Kisii, Kisumu, Migori, Nyamira and Siaya between the 16th and 21st May 2022. The consultation

covered seven value chains namely banana, dairy, coffee, tea, indigenous vegetables, indigenous chicken and forests. Consultations were largely in form of group discussions guided by a set of questions and were held either on farm, at a community facility or offices especially for cooperatives. This was aimed at causing the least interruption to respondents' activities. In total, we talked to ninety-five (95) respondents consisting of individual farmers; representatives of community-based organizations (CBOs) and cooperatives. In terms of gender, fifty-five (57) were males while thirty-eight (38) were females. Majority of the respondents were on dairy, coffee, tea and bananas. The survey team also visited three coffee factories owned by primary cooperatives in Kisii and Nyamira.

115. A consultative meeting was convened in November 2023 with representatives from Indigenous Peoples' groups (114 people including elders, women and youth) in the Lake Region Economic Bloc. Participants included the Ogiek Peoples' Development Program (OPDP) and Mainyoito Pastoralists Integrated Development Organization. Another consultation meeting was organized with 7 representatives from Indigenous Peoples. The objectives of this consultation were to present the proposed project's approach and to collect feedback from Indigenous Peoples. The feedback included the following which have been integrated into the project design and IPPF.

- The representatives from Indigenous Peoples' groups welcome the project.
- The Ogiek community requested for representation in the project governance mechanism.
- Timely consultation and feedback provision mechanism should be provided by the project.
- FAO and its partners to explore tailor-made project activities that will support the community and within the project scope and targets.
- The project should include activities that have both restoration and livelihood improvement effects such as apiculture when targeting farmers' groups that have Indigenous Peoples participation.
- The project should involve the indigenous women equally as the men.

Table 5 Main concerns addressed by stakeholders during consultation stage

Key production challenges identified	Suggestion for improvement
<ul style="list-style-type: none"> • Farmers suffering from CC effects and extreme climate events: increasing temperatures, droughts, changing rainfall patterns and extreme events like hailstones are a major challenge to farmers and cooperatives across the bloc. • Environmental degradation (soil erosion & infertility) • Limited to non-existence extension services to adopt improved or climate smart agricultural practices and modern production systems • Low yields and productivity • Pest and diseases (animal/livestock and plants) together with poor diagnosis and late response is placing additional stress on crops and livestock. Most of the diseases and pests tend to be more widespread and damaging during the dry spells or drought periods. • Limited access to climate information services (CIS). • High cost on agriculture/farming inputs and equipment remain largely expensive and unaffordable to small holder farmers ((seedlings, livestock and chicken feed, fertilizers), and low quality of most inputs accessed. 	<ul style="list-style-type: none"> • Adopt/promote value addition along the value chains to increase returns on agricultural investments and minimize losses or wastages. • Strengthen extension services for improved awareness and adoption of improved farming methods and technologies include: climate smart practices; use of certified seeds; veterinary services • Promote use of access and use of CIS including indigenous forecasts for better climate risk management. • Improve access to financial services, affordable loans to enable farmers access the necessary farming inputs and tools and provide capacity building. • Strengthen rural organization structures such as cooperative and farmers organizations/associations • Improve feed and nutrition and animal health and husbandry (livestock and indigenous chicken) • Promotion of sustainable agricultural practice, use of seedling and plant material free from pest diseases; encourage adoption/use of modern technologies; improve soil management

<ul style="list-style-type: none"> • High energy costs for those involved in processing and value addition. • Limited access to improved plant/seedling varieties • Limited knowledge on plant nutrition and fertilization • High dependence on carbon fuel (costly) • Market flux and associated low commodity prices is limiting profitability of agricultural enterprises. • Poor waste management practices and lack of knowledge on how to convert waste to by-products • Animal feeding/nutrition concerns (scarce fodder & water in dry season) • Inefficient coffee value chain (low productivity on farm, delay payments, outdated processing infrastructure/technology, etc.) • Waste and wastewater management (coffee, manure, etc.) • Transporting product to market is challenging and costly • Limited access to land especially by women 	<ul style="list-style-type: none"> • Strengthen coffee and dairy value chain (more efficient) • Sensitization of the youth to retake agriculture/farms activities • Adopt certification schemes • Improve coffee quality and added value to the product • Improve agronomic practices and product diversification • Enhance water harvesting infrastructure and technology • Increase access to land under production (e.g. case of indigenous vegetables) • Improve market conditions and participation of women (case of indigenous vegetables) • Improve access to climate information • Adoption of renewable energy for cooling and heating, improve efficiency of cookstoves • Support on developing business plans • Restoration of degraded areas
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Source: Authors' own elaboration.

5.2 Stakeholder engagement during project implementation

116. Consultation through a community outreach during implementation is a good practice that can be adopted to ensure that the potential negative impacts and concerns are properly addressed during construction and operation of a project. Extensive consultation with affected populations, Indigenous Peoples and marginalized groups (women, youth, elders, PLWD) will take place, especially for those activities that might impact or affect their livelihoods, and to ensure that these groups are able to benefit from project activities. As part of ongoing stakeholder engagement the project will facilitate relevant project information such as information related to ESIA, ESMPs, FPICs, IPPs; tracking on compliance of any commitment established with local communities and IPs, GRM, along with capacity building, training and awareness raising on several issues (child labour, gender equality and prevention of gender-based violence, SEAH, intergenerational succession in farm/ agricultural activities/ knowledge, participatory monitoring, among others), sharing knowledge products and lessons learned with stakeholders. For additional information refer to Annex 7. Stakeholder Engagement Process of the Funding Proposal.

117. The form of consultation will be tailored to the project, and based on the stakeholder analysis and engagement plan, a combination of different types of engagement may be considered, such as: public hearing or meeting; workshops and seminars; consultation with key informants; focus groups; round tables, discussion as part of conducting surveys or census studies; awareness campaigns, among others. As part of on-going stakeholder engagement, the project will ensure equal and fair access to the consultation process, and that the views and concerns of those whose voices are not always listened to (PLWD, women, IPs, youth) are taken into account. Stakeholder consultations during project implementation will be conducted on an annual basis. The field-level consultation process will be facilitated by the local project staff, whilst the overall schedule for consultations will be coordinated by the Lead Safeguards Specialist & Indigenous Specialist in coordination with the PMU. Appendix 5 of the ESMF provides an overview of the budget and timeline for on-going stakeholder consultations.

118. Considering that there are indigenous communities in the LREB, a Free Prior and Informed Consent process will be carried before initiating any activity that could impact or affect the Indigenous communities or in areas communities are present, to obtain an initial consent from these communities. As part of the FPIC, ongoing participation of communities, participatory monitoring and robust verification will be continuously upheld, striving for the widest possible participation of communities in decision-making (particularly, women, youth, the poor, migrants and the landless), and ensuring that meetings and information is delivered by culturally appropriate personnel, in culturally appropriate locations, and include capacity building of indigenous or local trainers. FPIC will also serve to establish or re-confirm with Indigenous communities the preferred Grievance Redress Mechanisms. Thus far, and as detailed in section 5.4 of this ESMF, the community specific GRM will likely include additional representation of Indigenous groups to ensure fair and transparent redress. Information will be provided in formats and languages that are meaningful to Indigenous Peoples affected by the project; this may mean translating key documents into a local language or making more use of visual information. In case that interpreters are to be used, they should be people who know the local context and are trusted by the community. Various forms of information sharing, and outreach may be considered (e.g., use of local radio). Sufficient time must be given to allow communities to discuss the issues internally; to resolve differences of opinion; and to reach conclusions about the projects that are endorsed by the majority. Reaching a collective agreement is to be done through a process of good faith negotiation and recorder in written. Detailed information related to the FPIC process is available at Appendix 7 of the ESMF.

5.3 Disclosure

119. According to GCF and FAO policies on access to information, all safeguard instruments under this project, including the ESMF and Gender Action Plan must be disclosed online in the English (local language) at least 30 days prior to GCF Board meeting and approval of the project. Access to the documents must be possible for any locals (i.e., it must be disclosed locally in an accessible place) in a form and language understandable to key stakeholders. Such disclosure of relevant project information helps stakeholders effectively participate. FAO is committed to disclosing information in a timely manner and in a way that is accessible and culturally appropriate, placing due attention to the specific needs of community groups which may be affected by project implementation (e.g., literacy, gender, differences in language or accessibility of technical information or connectivity).

120. For moderate risk projects like this one, FAO releases the applicable information as early as possible, and no later than 30 days prior to project approval, as per the GCF [Revised Environmental and Social Policy](#) and the GCF [Information Disclosure Policy](#). The 30-day period commences only when all relevant information requested from the project has been provided and is available to the public, allowing stakeholder sufficient time to review, request further information and provide inputs/ feedback on the proposed project and related safeguard documents (e.g. ESMP).¹⁸¹ FAO undertakes disclosure for all moderate risk projects, using a disclosure portal to publicly disclose all of the projects' documentation related to environmental and social safeguards (e.g. Environmental and Social Management Frameworks, Gender Action Plans, Indigenous Peoples Plans, and other relevant documents). The website is: <http://www.fao.org/environmental-social-standards/disclosure-portal/en/>.

¹⁸¹ Note: Information will be considered complete when it meets the requirements of the GCF Information Disclosure Policy and Section 7.1 of the Revised GCF Environmental and Social Policy (pertaining to information disclosure). For safeguards related information, the following information must provide at least the following information (at a minimum): a) the purpose, nature, and scale of the activities and the intended beneficiaries, b) the duration of the proposed activities, c) a summary of stakeholder consultations and the planned stakeholder engagement process, and d) the available grievance mechanisms.

121. To ensure the widest dissemination and disclosure of project information, including any details related to applicable environmental and social safeguards, local and accessible disclosure tools including audiovisual materials (e.g., flyers, brochures, community radio broadcasts) will be utilized in addition to the standard portal disclosure tool. Furthermore, particular attention will be paid to farmers, Indigenous Peoples, illiterate or technological illiterate people, people with hearing or visual disabilities, those with limited or no access to internet and other groups with special needs. Furthermore, particular attention will be paid to farmers, Indigenous Peoples, illiterate or technological illiterate people, people with hearing or visual disabilities, those with limited or no access to internet and other groups with special needs. The dissemination of information among these groups will be carried out with the project counterparts and relevant local actors (e.g., ward and county offices, ethnic groups, farmers associations, government, and others). The dissemination of information among these groups will be carried out with the project counterparts and relevant local actors.

122. In relation to each Category B sub-activity to be funded under the Project, FAO shall disclose the Environmental and Social Management Plan (ESMP), Social Inclusion Management Plan or Indigenous Peoples Plan, and as appropriate any other associated information required to be disclosed in accordance with FAO and GCF Information Disclosure Policy (Project Disclosure Package). Activities and sub-activities that are categorized as Category B (as per FAO Screening process), will require that documents are disclosed online and in locations convenient to affected peoples within the project area in English (official language). All documents will be disclosed at least 30 days prior to approval/ endorsement. The ESMF and the accompanying Gender Action Plan will also disclosed in English (national language of Kenya) on appropriate websites.

5.4 Grievance Redress Mechanism

123. The grievance redress mechanism (GRM) is an integral project management element that intends to seek feedback from beneficiaries and resolve complaints on project activities and performance. Grievance mechanisms are an important part of both GCF and FAO project approach and a pillar for stakeholder engagement throughout project implementation. The GRM allows the organizations to address grievances or complaints by a person, group of persons or community who/which have been or may be adversely impacted by a GCF funded project or programme through problem solving and/or compliance review, as appropriate. FAO, as a GCF accredited entity, ensures compliance with the [GCF Procedures and Guidelines of the Independent Redress Mechanism](#); and has its own developed [Guidelines for Compliance Reviews Following Complaints Related to the Organization's Environmental and Social Standards](#), to ensure that FAO programs are implemented in accordance with the Organization's environmental and social safeguards. This mechanism is based on FAO requirements and most importantly, it is based on existing, community-specific grievance redress mechanisms preferred by the local beneficiaries.

GCF Grievance Mechanism

124. GCF established an [Independent Redress Mechanism \(IRM\)](#) that reports directly to the Board¹⁸². The IRM's mission is to address complaints from affected people and provide recourse in a way that is fair, effective and transparent, and enhance the performance of GCF's climate funding. The IRM also accepts requests from Developing Countries seeking reconsideration of funding proposals that were denied by the GCF Board. To deliver its mandate, the IRM is guided by a number of GCF policies pertinent to GCF's general operations and its projects and programmes: Revised E&S Policy, Interim E&S Safeguards, Indigenous Peoples Policy, Updated Gender Policy and Information Disclosure Policy of the GCF.

¹⁸² <https://irm.greenclimate.fund/about>

125. As per the Procedures and Guidelines of the IRM, the main function of the IRM include among others: address grievances or complaints by a person, group of persons or community who/which have been or may be adversely impacted by a GCF funded project or programme through problem solving and/or compliance review, as appropriate; initiate proceedings on its own to investigate grievances of a person, group of persons or community who/which have been or may be adversely impacted by a GCF funded project or programme; monitor whether decisions taken by the Board based on recommendations made by the IRM, or agreements reached in connection with grievances or complaints through problem solving, have been implemented, and report on that monitoring to the Board.

126. Regardless of the different E&S mitigation measures and procedures in place, climate adaptation and mitigation projects can inadvertently people can be adversely impact communities. Taking this into consideration GCF provides a platform where communities, Indigenous Peoples and civil society can present complaints regarding a specific GCF financed project and seek remedy (redress harm) and improve project performance in the long run. There are no formal requirements for filing a complaint. A complaint should generally include: i) the complainant's name, address and contact information; ii) If the complaint is being filed by a representative of the complainant, the name and contact information of the representative, as well as evidence that the representative is authorized to act on the behalf of the complainant; iii) A description of the project or programme that has caused or may cause adverse impacts to the complainant; iv) A description of how the complainants have been or may be adversely impacted by the project or programme; v) Whether confidentiality is being requested and the reasons for it.

127. Some exclusions apply, as indicate in the IRM guidelines. The complaint can raise issues related to any of GCF's policies and procedures, including those relating to social and environmental issues, Indigenous Peoples, gender, information disclosure, among others. However, the IRM cannot accept a complaint if it is: i) About a project or programme where the GCF is not directly and/or indirectly involved; ii) About GCF's non-operational housekeeping, such as human resources and finance; iii) Allegations of corruption or procurement issues (these complaints are handled by the Independent Integrity Unit (IIU) and other Units at the GCF); iv) Only about whether the GCF's policies and procedures are adequate; v) About a matter already dealt with by the IRM, unless there is new relevant information that was not available before; or vi) Malicious, frivolous and/or fraudulent or filed to gain a competitive advantage.

128. Who and how can grievances or complaints be submitted.

- Any person or a group of persons, or a community that has been or may be affected negatively by a GCF project or programme (including those being actively considered for funding by the GCF) may file a complaint. The affected person(s) can authorize their government or representative to file and pursue the complaint on their behalf.
- The IRM shall provide confidentiality to a complainant or to a representative, if so requested by the complainant. A grievance or complaint may be submitted in English or in any language the complainant uses.
- The IRM will provide confidentiality upon receiving a complaint if requested to do so by the complainant. Complaints or grievances can be submitted to the IRM through any means such as submission through an online complaints form, mail, email, voice or video recording, or by calling a toll-free hotline where one has been designated for that purpose by the IRM or directly through a web form:
 - <https://gcf.i-sight.com/external/case/new/group=Complaint>

- Complaints can also be submitted to the Grievance redress mechanism of Accredited Entities (AE) ¹⁸³.

129. The IRM will cooperate and collaborate with the accountability and/or grievance mechanisms of AEs. The IRM on the one hand, and the accountability and/or grievance redress mechanisms of the respective AEs on the other, will each perform their duties and exercise their powers and functions, in accordance with the policies and procedures applicable to them.

FAO's Approach to the GRM

130. FAO is committed to ensuring that its programs are implemented in accordance with the Organization's environmental and social obligations, and therefore supports the establishment and implementation of **Grievance Redress Mechanism** as a crucial process to ensure that parties involved in and affected by the activities of FAO programmes and projects have access to fair, transparent, inclusive and no-cost process and mechanisms to redress grievances and resolve conflict. FAO programs have access to an effective and timely mechanism to address their concerns about non-compliance with E&S obligations (including SEAH and GBV), the Organization, in order to supplement measures for receiving, reviewing and acting as appropriate on these concerns at the program management level, has entrusted the Office of the Inspector-General with the mandate to independently review the complaints that cannot be resolved at that level. FAO grievance, feedback and complaint mechanisms should be:

- **Legitimate:** They should be trusted by the intended stakeholder groups for whose use they are intended and be accountable for the fair conduct of grievance processes.
- **Accessible:** They should be known to all stakeholder groups for whose use they are intended and provide adequate assistance for those who may face barriers to access (such as language and mobility). They should be age- and gender-inclusive; address access barriers for different groups, including marginalized, vulnerable and disadvantaged and persons with disabilities; and deal with concerns promptly and effectively in a transparent manner that is culturally appropriate at no cost and without retribution.
- **Predictable:** Provide entry points for communicating concerns and clarity on the mechanism's procedures, and keep the parties with grievances informed about progress by providing sufficient information about the mechanism's performance. A grievance mechanism requires that the involved and affected stakeholders know about it, trust it and are able to use it. It is important to maintain a record of responses to all grievances received and make this available where appropriate; inform the involved and affected parties on how to access the mechanism during stakeholder engagement activities; and indicate the appeals process to which complainants may be referred when resolution has not been achieved.
- **Rights-compatible:** They should ensure that outcomes and remedies are in line with internationally recognized human rights. The mechanism should not prevent access to judicial or administrative remedies. Where feasible and suitable, utilize other existing formal or informal mechanisms as a supplement to the grievance mechanism, if needed, to ensure conformity with internationally recognized human rights.
- **Open to continuous learning:** They should incorporate measures to identify lessons learned that can improve the mechanism, and prevent future grievances and harm.
- **Confidential:** The safety of the complainant should be a primary consideration at all times during reporting, investigation, and thereafter. Complaint mechanisms must consider potential dangers and risks to all parties, including survivors of GBV and abuse and incorporate ways to prevent

¹⁸³ <https://irm.greenclimate.fund/sites/default/files/page/grm-contact-information-gcf-aes-october-2021.pdf>

additional harm. This should include the availability of confidential complaint mechanism systems.

131. In this regard, FAO grievance redress mechanism is designed and established to voice concerns and grievances from people who believe that they have been harmed/affected by the projects or programmes implemented or financed by the Organization; and to identify agreeable solutions within a reasonable timeframe. Special efforts will be made to ensure the grievance redress mechanism is available for all people, and that women, indigenous, marginalized, and other vulnerable and or socially excluded groups have equal access and bear no negative repercussions for filing any complaints or grievances. Any cost that may be associated with the preparation or issuance of a legitimate complaint or grievance (e.g. engaging a qualified person to assist the complainant) will be covered by the grievance mechanism.

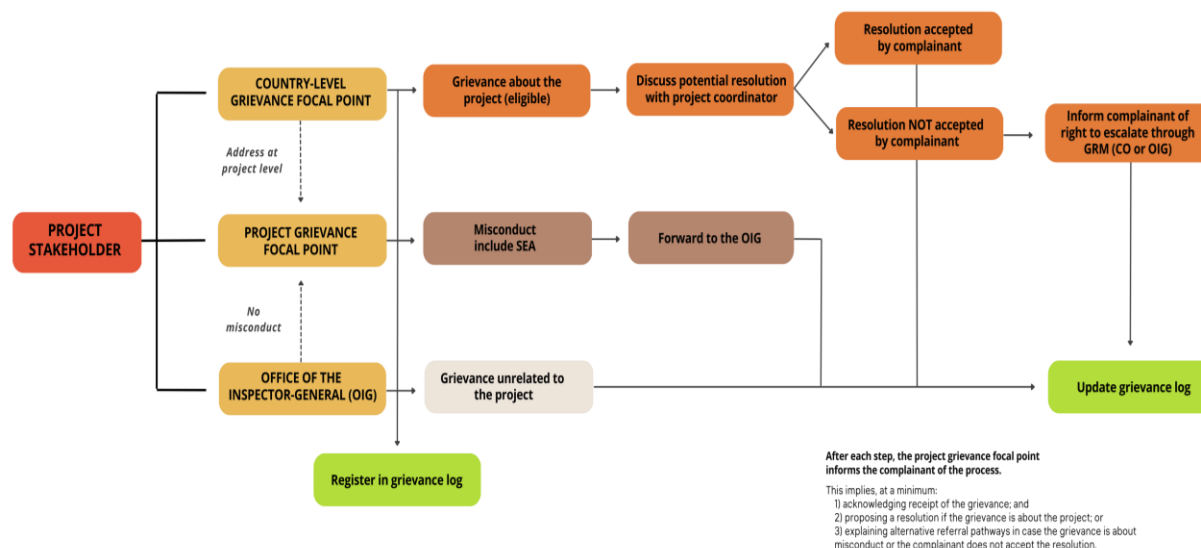
132. FAO will facilitate the resolution of concerns of beneficiaries of FAO programs regarding alleged or potential violations of FAO's social and environmental commitments which includes SEAH and GBV. All concerns and/or incidents related to sexual exploitation and abuse must be addressed to the PSEA Focal Point in the country and to the Office of the Inspector General (OIG) as appropriate.

133. The FAO will facilitate the resolution of concerns of beneficiaries of FAO programs regarding alleged or potential violations of FAO's social and environmental commitments. For this purpose, concerns may be communicated in accordance with the eligibility criteria of the Guidelines for Compliance Reviews Following Complaints Related to the Organization's Environmental and Social Standards, which applies to all FAO programs and projects (Guidelines for Compliance Reviews Following Complaints Related to the Organization's Environmental and Social Standards). The principles to be followed during the complaint resolution process include impartiality, respect for human rights, including those pertaining to Indigenous Peoples, compliance of national norms, and coherence with the norms, equality, transparency, honesty, and mutual respect.

134. Concerns must be addressed at the closest appropriate level, i.e., at the project management/technical level, and if necessary, at the Regional Office level. If a concern or grievance cannot be resolved through consultations and measures at the project management level, a complaint requesting a Compliance Review may be filed with the OIG in accordance with the Guidelines. Program and project managers will have the responsibility to address concerns brought to the attention of the focal point.

135. Any project stakeholder can file a grievance through at least 3 channels (Figure 23): the project GRM, the Country Office GRM (which may be the same as the project GRM), and Office of Inspector General (OIG). GRM shall receive and address complaints related to the implementation of activities in a timely and culturally appropriate manner.

Figure 23 FAO GRM Referral Pathway



Source: Authors' own elaboration.

136. FAO prohibits and prevents retaliation against workers and other stakeholders who seek to be informed about and participate in activities that are supported or implemented by the Organization; express their concerns about them; or gain access to the processes and mechanisms of FAO programmes and projects for redressing grievances. The Organization neither tolerates nor contributes to threats, intimidation, retaliation or physical and legal attacks against human rights defenders and stakeholders who are involved in and affected by FAO programmes and projects. Respect should always be given to request for confidentiality with regards to the identities of complainant and disclosure of information provided to these mechanisms.

Project-Level GRM

137. The project will establish one or more grievance mechanisms at the field level to file complaints in the location where the project is being implemented. GRM serves as a mechanism for timely resolution of an issue directly linked to project activities and prevent escalation of problems into social conflict; and as an accountability mechanism where people who are directly or indirectly affected by the project can seek remedy. However, GRM can also serve as a proactive tool to facilitate dialogue with affected communities at all stages of the project cycle, including to determine what kind of information the communities require and the best means for them to receive it. The project level GRM aims to:

- Provide affected people an avenue through which affected individuals/communities can voice their concerns and dissatisfactions.
- Create a platform in which stakeholders and community members can freely raise concerns and complaints to be effectively addressed.
- Demonstrate to project stakeholders and communities that they play an important role in project design and implementation.
- Follow up and report on efforts to take corrective action (remediation process).
- Improve project performance by compiling and disseminating best practices and lessons learned from the processes.

138. SEAH, related grievance management and GBV referral pathways. FAO ensures that the project personnel and the EEs will be trained on prevention of sexual exploitation, abuse, and harassment to achieve maximum prevention of SEAH and GBV. Sensitization campaigns will be carried out to support and catalyze community-driven support measures against SEAH. The project Grievance Redress Mechanism will be reinforced to deal effectively with SEAH and GBV incidents (including the development of a procedure to accompany the GRM on SEAH to ensure survivor-centered mechanisms that are gender-responsive and ensure confidentiality, and sensitive and ethical complaint and grievance handling). Referral pathways for GBV will be established and professionals trained for their operationalization, FAO E&S and Gender specialist in monitoring the process. All SEAH and GBV activities will be inclusive, survivor-centred, and gender-responsive. In case of SEAH/ GBV incidents, the services for survivors will be carefully considered during the implementation.

139. To effectively communicate information regarding GRM with stakeholders, both (a) contact information and (b) information on the process one must follow to file a complaint will be disclosed in all project meetings, workshops and other related events throughout the life of the project. It is also expected that all awareness raising material to be distributed will include the necessary information regarding the process and mechanism for filing grievances and key contacts.

140. The Project Management Unit (PMU) will be responsible for addressing incoming grievances regarding environmental and social standards; as part of the safeguard's performance monitoring, the Project Coordinator of the PMU will be responsible for documenting and reporting on any grievances received and how they were addressed. FAO as well as other executing entities (EEs) will inform communities about the GRM through culturally appropriate mechanisms, ensuring information on the mechanisms at different levels through preferred communication channels, which are to be agreed and discussed as part of the project FPIC. The project will be responsible for documenting and reporting, as part of the safeguard's performance monitoring, on any grievances received and how they were addressed. Any grievances should be analysed and mitigated as quickly as possible to avoid any tensions or conflicts.

141. The GRM will include methods/process to (i) receive and register external communications from the public; (ii) screen and assess the issues raised and determine how to address them; (iii) provide, track, and document responses, if any; and (iv) adjust the management program, as appropriate. The Grievance Redress Mechanism will include the following stages:

- The established GRM will be conducted in line with the requests from community consultations and will be sensitive to the needs of vulnerable groups, especially Indigenous Peoples, women and PLWD. Main stakeholders (through consultation process that will be part of FPIC) will have to agree on the preferred ways and method to file claims or grievances (eg. directly through FAO or through existing local structures or traditional means of community discussion, respecting customary rights).
- In instances whereby the claimant would prefer to have the grievance addressed directly through FAO or a higher level of government but does not have the ability to file a claim personally, the concerned person(s) will express the grievance (either orally or in writing) to the local implementation unit/structure. The project staff at the local level who receives the complaint will be responsible for presenting/filing those complaints to the Lead Safeguards Specialist based in the central Project Management Unit (PMU) in Kenya.
- In instances where the claimant has the means to directly file a claim, he/she has the right to do so, presenting it directly to the Lead Safeguards Specialist within the PMU in Kenya. The process of filing a complaint will duly consider anonymity as well as any existing traditional or ethnic dispute resolution mechanisms and it will not interfere with the community's self-governance system.

Contact information will also be given for processing a grievance directly to the Lead Safeguards Specialist within the PMU by phone.

- After the complainant files a complaint through one of the channels of the grievance mechanism, this complaint will be registered by the Lead Safeguards Specialist and sent to the PMU Project Coordinator to confirm that the complaint is eligible. The confidentiality of the complaint must be preserved during the process.
- Eligible complaints will be addressed by the PMU or the applicable institution. The PMU Project Coordinator will be responsible for recording the grievance and how it has been addressed if a resolution was agreed.
- If the situation is too complex, or the complainer does not accept the resolution, the complaint must be sent to a higher level, until a solution or acceptance is reached.
- For every complaint received, a written proof will be sent within ten (10) working days; afterwards, a resolution proposal will be made within thirty (30) working days.
- In compliance with the resolution, the person in charge of dealing with the complaint, may interact with the complainant, or may call for interviews and meetings, to better understand the reasons.
- All complaints received, its response and resolutions, must be duly registered.

142. Internal Process:

Lead Safeguards Specialist. The complaint could come in writing or orally (including over the phone) to the Lead Safeguards Specialist within the Project Management Unit (PMU). At this level, received complaints will be registered and screened by the Lead Safeguards Specialist for eligibility. Screened complaints will then be sent to the Project Coordinator in the PMU.

Project Management Unit (PMU). The complaint should come in writing from the Lead Safeguards Specialist within the PPIU to the Project Coordinator in the PMU directly. The Project Coordinator will provide final confirmation of eligibility and proceed to investigate and resolve the complaint.

Project Oversight Committee (POC). If the complaint has not been solved and could not be solved with the PMU, then the chair of the POC must address the complaint. If this still cannot be resolved, then the complaint is sent to the next level (FAO Representative).

FAO Representative. The assistance of the FAO Representative is requested if a resolution was not agreed in the first two levels (PMU and POC).

FAO Regional Office for Africa. The FAO Representative will request, if necessary, the advice of the Regional Office to resolve a grievance or will transfer the resolution of the grievance entirely to the regional office, if the problem is highly complex.

The FAO Regional Representative will request – only on very specific situations or complex problems – the assistance on the FAO Inspector General, who would then pursue procedures of the Office of the Inspector General (OIG) to solve the problem.

143. **Reporting,** the Safeguards Officer and PMU will also provide regular (quarterly) updates to regarding all grievances raised and actions taken to resolve them. Regular reports should also be provided to the public, including metrics such as number and type of grievance received, # and % of grievance resolved, # and % of grievance resolved within a specified timeframe, # and % of grievance that have gone to mediation or have been referred to a third party, and satisfaction of those that bring grievances. This could be done in the project website/ or project GRM website if there is one and at regular stakeholder engagement meeting carried out as part project activities.

Resolution:

144. Upon acceptance of a resolution by the complainant, a document with the agreement should be signed among involved parties, clearly indicating the terms of the resolution. Records of all grievances made and addressed should be preserved in order to ensure continued compliance and a transparent grievance review mechanism.

Grievance structure

Recipient of Grievance	Action required
Lead Safeguards Specialist	Must register the complaint and send eligible complaints to the PMU within 2 working days.
Project Management Unit (PMU)	Must respond within 5 working days of receipt.
Project Steering Committee (PSC)	Any organization may receive a complaint and must provide proof of receipt of said complaint. If the case is accepted, then the receiver must send all the information to all of the Project Steering Committee members and call for a meeting to find a resolution. The response must be sent within 5 working days after the meeting of the Project Steering Committee
FAO representative in Kenya	Must respond within 5 working days, in consultation with PSC. FAO Representative: FAO-KE@fao.org ; Tel. (+254) 2076 25920
FAO Regional Office for Africa	Must respond within 5 working days in consultation with FAO's Representation. FAO representative: Email: FAO-RAF@fao.org phone: +233 (0) 302 610930
Office of the Inspector-General (OIG)	To report potential fraud and misconduct by confidential fax: (+39) 06 570 55550 By email: Investigations-hotline@fao.org By Confidential Hotline: (+ 39) 06 570 52333

145. Members of indigenous groups, ethnic communities, minorities or marginalize groups can make a complaint or appeal on all aspects of sub-activities' design and implementation. Specifically for Indigenous communities, as part of FPIC process, preferred GRM will be discussed and agreed, to ensure that the project respects and complies with the customary practices of these stakeholders, integrated them within the project-level GRM. In many instances grievance cases have been addressed in an informal manner by local communities under the direction of community or traditional leaders. Once GRM has been agreed, a complaint and grievance feedback form, as well as a pamphlet explaining the mechanism, will be developed under the project, and distributed to ethnic group communities for their use. Indigenous group community members will be clearly informed of the complaint and appeal channels (as described above) in community meetings and other forms of communication that are convenient to them. Information and communications technology and media tools should be used to disseminate information. Opinions and suggestions related to resettlement which are provided by concerned people and/or organizations should be well documented.

146. **Dissemination of FAO Grievance Redress Mechanism (GRM) and GCF Independent Redress Mechanism (IRM).** Disclosure of FAO ESMF information (including GRM & IRM) will be carried through different channels and formats including through FAO disclosure portal, FAO's regional/country offices'

websites and/or relevant national website, if applicable. Special consideration will be taken to ensure that information is available in a form and language that is readily understandable and tailored to the target different stakeholder groups, including marginalized and disadvantaged groups (include women, youth, elderly, Indigenous Peoples, PLWD). To reach a wider audience, at local level, other means of dissemination that will be considered, include disclosure of GRM & IRM as part of the Project ongoing stakeholder engagement processes, as part of FPIC process, in physical and digital format (newsprint, radio reporting, flyers, local displays, direct mail, among others).

- Inception workshop and regular training as part CRLCSA Project at the regional and at county level, and in each of the three project provinces.
- Information sessions and community meetings, including the provision of information both orally and through informative materials.
- Brochures regarding CRLCSA grievance redress mechanism distributed to diverse stakeholders including local and provincial CSOs.
- FAO Kenya's webpage
- Included as part of any other communication material that is designed and distributed during project implementation.

147. The following should be taken into consideration when devising appropriate forms of disclosure: the level of technical detail, local languages and dialects, levels of literacy, roles of women and men, and local methods of disseminating information. Communication material about the GRM channels must be prepared in local languages and should be distributed to all stakeholders throughout the project cycle. Key information to be disseminated include:

- What GRMs are available, including FAO's own grievances reporting procedures, and why they are important.
- Who can actually raise grievances (individuals, communities, and other stakeholders that might be affected by the project), also specifying who cannot.
- Uptake channels, including phone hotline, SMS, email, webpage, offices, or help desks, where grievances can be filed (these should be defined strategically and ideally in consultation with communities so they will be most effective and accessible to different target groups).
- Who is responsible for receiving and responding to grievances.
- Commitments by the project regarding the maximum time allowed to get back to individuals or groups that file a grievance and other time bound steps related to a grievance and described in the GRM of the project document. Note that written proof will be sent within ten (10) working days; afterwards, a resolution proposal will be made within thirty (30) working days.
- Policy about protection from retaliation in accordance with the Whistle-blower protection measures, and the victim centered approach policy and its key principles of safety, confidentiality /privacy and informed consent.
- What are the types of responses and benefits that people can receive from using GRMs.

Receive & register	Community organizations, households, individuals or other stakeholders, including through Accountability Box system, submit their grievances to the PMU ESS specialist and supporting officers within PMU. Safeguard Officers will receive grievances or feedback through telephone/SMS, email, feedback/complaint box or other written or oral format
Acknowledge, screen, assess and assign	PMU ESS specialist will screen each grievance to ensure eligibility and either will assign staff to assess and investigate the grievance or forwards the grievance to higher institutional levels if too complicated to be addressed at the respective level. Officers responsible for the investigation and addressing the grievance prepares and presents report on grievance with potential resolution options
Respond & address	PMU ESS specialist proposes options to address the grievance to the complainant and any other related parties to reach an agreement
Implement and Monitor	PMU ESS specialist requests to implement the agreed upon redress option and, along with input from other PMU officers, assigns a relevant officer to monitor the progress and effectiveness of implementation
Report	PMU ESS specialist prepares a report, based on a standardized template, on the status of all grievances. This report is then submitted to the National Project Coordinator.

National Redress Mechanism

148. Article 159 of The Constitution of Kenya, 2010 provides for Alternative and Traditional forms of dispute resolution. These are applicable only to the extent that they do not contravene the Bill of Rights, the Constitution and other written laws and are not repugnant to justice and morality: 1) Judicial authority is derived from the people and vests in and shall be exercised by, the courts and tribunals established by or under this Constitution. (2) In exercising judicial authority, the courts and tribunals shall be guided by the following principles— (c) alternative forms of dispute resolution including reconciliation, mediation, arbitration and traditional dispute resolution mechanisms shall be promoted, subject to clause. (3) Traditional dispute resolution mechanisms shall not be used in a way that— (a) contravenes the Bill of Rights; (b) is repugnant to justice and morality or results in outcomes that are repugnant to justice or morality; or (c) is inconsistent with this Constitution or any written law.

6. Indigenous Peoples Planning Framework

6.1 Indigenous Peoples in Kenya

149. Within the project area, target groups including agricultural cooperative, farmers, PLWDs, youth, governmental staff, men and women from diverse ethnic and socio-cultural backgrounds, including members from different indigenous groups. Thus, the project will work with indigenous and non-indigenous communities/groups, social inclusion and safeguarding the rights of Indigenous Peoples and

other marginalized/excluded communities is mainstream within the project's activities and monitored in a responsive and proactive manner.

150. The Indigenous Peoples of East Africa (Tanzania, Uganda, Kenya, and Southern Ethiopia) are Pastoralists and hunter-gatherers who pre-date the migration of Bantu agro-pastoralist peoples into this region. Indigenous Peoples in the Eastern Africa region face numerous challenges that include historical political, social and economic marginalization, non-recognition and denial of land rights, lack of inclusion, consultation and compensation in natural resources exploitation including in extractive industries, land fragmentation among others. Most of their territories have been designated as protected areas for wildlife and forest conservation or as “water towers.” Consequently, their cultures, traditions including their belief systems and livelihood systems are under immense threats.¹⁸⁴ Furthermore, environmental degradation is widespread in pastoralists territories especially through large scale cash crop farming. Massive deforestation of forest community areas including the Mau Forest complex endangers the life of not only hunter gatherers communities but also indigenous communities downstream and the nation at large. Climate change is especially a present threat to Indigenous Peoples in Eastern Africa. Unpredictable weather patterns, increasing instances of drought, new diseases and locusts are currently ravaging Indigenous Peoples territories. Climate change mitigation and adaptation programs implemented without the FPIC of IPs threatens their cultures, livelihoods and traditions. As a result of non-recognition of their rights, the communities lack basic services like schools, hospitals, roads among others.¹⁸⁵

151. Kenya is home to a number of groups who self-identify as Indigenous Peoples. Some of these are hunter-gatherers with some transitioning to agro-pastoralism, others nomadic or seminomadic pastoralists and other artisanal blacksmiths and fishing communities. In the absence of updated and reliable statistics, it is difficult to give precise demographic data of the various groups. Estimations vary greatly and depend on personal or institutional judgments of which group is considered as Indigenous Peoples in Kenya¹⁸⁶. It is estimated that pastoralists comprise 25% of the national population, while the largest individual hunter-gatherer community amounts to approximately 79,000 (IWGIA, 2022) The pastoralists mainly occupy the arid and semi-arid lands of northern Kenya and towards the border between Kenya and Tanzania in the south. The hunter-gatherers include the Ogiek, Sengwer, Endorois, Yaku, Waata, Elmolo and Aweer (Boni). The pastoralists (transhuman pastoralist) include the Turkana, Rendille, Borana, Maasai, Samburu, Ilchamus, Somali, Gabra, Pokot, and others. These groups will often face land and resource tenure insecurity, lack access to basic amenities such as water, food and shelter, poor service delivery, poor political representation, discrimination and exclusion (IWGIA).

152. According to ILO, Indigenous Peoples (IPs) are almost three times as likely to be in extreme poverty than their non-indigenous counterparts. In IPs the concept of poverty usually extends beyond income, it encompasses factors such as access to land, their well-being, spirituality, and dignity. Kenya's indigenous women are confronted by multifaceted social, cultural, economic, and political constraints and challenges. Firstly, they belong to minority and marginalized peoples nationally; and secondly, they experience internal social cultural prejudices. These prejudices have continued to deny indigenous women equal opportunities to rise from the morass of high illiteracy and poverty levels. It has also prevented them from having a voice to inform and influence cultural and political governance and development policies and processes.¹⁸⁷

¹⁸⁴ <https://www.ipacc.org.za/east-africa/>

¹⁸⁵ Idem.

¹⁸⁶ <http://www.nema.go.ke/images/Docs/NIE%20Docss/Annex%2023%20ARCA-%20Indigenous%20%20People%20and%20Chance%20find%20procedure%20.pdf>

¹⁸⁷ <https://indigenousnavigator.org/indigenous-data/countries/kenya>

153. A study conducted on Indigenous Women's Realities (Indigenous Navigator, 2020) highlights that a lack of land title registration continues to be a problem in most indigenous communities, thus affecting the capacity of indigenous women to generate income; furthermore restriction on access to land, coupled with land degradation and climate change are factors leading to the migration of IPs to urban areas. In terms of their social and economic conditions, health problems, low levels of education and income, unemployment and landlessness remain main reasons for poverty among indigenous women; in addition to this, the lack of access to social security services places IPs in a more vulnerable condition. According to this same study, underrepresentation of women (especially indigenous women) in legal and political decision-making process, remains a challenge, not only at national level, but also within their own communities. According to ILO, the main barriers that indigenous women faced in participating in public life (political and decision-making bodies) are: i) physical barriers (financial dependence on men, scarce access to physical meeting spaces, weak communication networks; ii) psychological barriers (lack of awareness and knowledge, skill and abilities e.g. language barriers and poor access to education); iii) social barriers related to gender norms, roles and perceptions, violence, harassment & discrimination.

154. Indigenous Peoples bear the brunt of the climate emergency, they are particularly exposed and vulnerable to the adverse impacts of climate change due to their reliance on nature for their survival and sources of economic livelihoods (UNHCR, 2020). The UNHCR accent the importance on how traditional and indigenous knowledge is key to building resilience for vulnerable populations in the face of climate change, as most of their traditions and practices relies on nature-based solutions. In Africa, indigenous and local knowledge in planning and development is one important component to increase adaptation (Leal Filho, Matandirotya and Lütz et.al., 2021). As an example, these authors mention how Endorois (group of IP outside the Project area of influence) adopted climate-smart agroecological production systems (e.g., cultivation of drought-tolerant cereals, tubers, and vegetables) led to more sustainable land management practices, minimized water usage, reduced human–wildlife conflict, and enhanced food security. Owing to their close cultural connection to their environment, the Endorois have also embraced nature-based ecotourism enterprises, including medical, cultural, and geotourism in response to the climate-change-induced negative effects on the livelihoods. Other adaptations to climate-change effects among the Endorois people include livestock and crop diversification, herd adjustment by class, livestock destocking, and supplementary feeding of livestock.

155. Environmental concerns are also a leading explanation of conflicts over land in Kenya, increased struggles for water and food security due to uncertain climatic conditions form the basis upon which environmental explanations of land conflicts are grounded (Onguny & Gillies, 2019). In some Kenyan communities, clashes between farmers and pastoralists erupt; farms encroach on rangelands while livestock invade farms (Reliefweb, 2022). According to Onguny & Gillies (2019) climate-induced people mobility and wildlife migration have been shown to contribute to enhanced conflict between transhumant, sedentary and nomadic livelihood practices. This same author states that, in Tana River County (outside of project area of influence), the mobile livelihoods of pastoralist communities such as the Orma are seen as clashing with the livelihood practices of agro-pastoralist groups such as Pokomo, particularly during drought and famine.

6.2 Laws and policies on Indigenous Peoples

156. Kenya has no specific legislation on Indigenous Peoples and has yet to adopt the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and ratify International Labour Organization (ILO) Convention 169. Chapter Four of the Kenyan Constitution contains a progressive Bill of Rights that

makes international law a key component of the laws of Kenya and guarantees protection of minorities and marginalized groups. Under Articles 33, 34, 35 and 36, freedom of expression, the media, and access to information and association are guaranteed. A specific Free, Prior and Informed Consent (FPIC) has not yet been adopted by the country. However, Kenya has ratified the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD), the Convention on the Elimination of Discrimination against Women (CEDAW), the International Convention on the Elimination of All Forms of Discrimination Racial (CERD) and the Convention on the Rights of the Child (CRC)¹⁸⁸. In 2010, Kenya adopted a new Constitution that mentioned for the first-time rights of minority and marginalized communities. It recognized indigenous communities as marginalized communities, recognizes community land rights, indigenous cultures and knowledge systems and provides for affirmative action programs for Indigenous Peoples. The Ogiek and Endorois have won major decisions that recognize their rights at the African Court on Human Rights and the African Commission on Human Rights respectively.

157. **Constitution of Kenya of 2010 (CoK)** does not specifically use the term Indigenous Peoples (IPs), it is nevertheless robust in articles that define vulnerability and marginalization, including issues that IPs cite as the reasons for their self-identification. It also addresses social exclusion in general. Article 260 of the Constitution defines a “marginalized community” as: (a) a community that, because of its relatively small population or for any other reason, has been unable to fully participate in the integrated social and economic life of Kenya as a whole;(b) a traditional community that, out of a need or desire to preserve its unique culture and identity from assimilation, has remained outside the integrated social and economic life of Kenya as a whole;(c) an indigenous community that has retained and maintained a traditional lifestyle and livelihood based on a hunter or gatherer economy; or (d) pastoral persons and communities, whether they are (i) nomadic; or (ii) a settled community that, because of its relative geographic isolation, has experienced only marginal participation in the integrated social and economic life of Kenya as a whole.

158. Similarly, the CoK, 2010, defines ‘marginalized group’ as: a group of people who, because of laws or practices, on, or after the effective date, were or are disadvantaged by discrimination on one or more of the grounds in Article 27 (4) which prohibits discrimination on the basis of ethnic or social origin, religion, conscience, belief, culture, dress or language. In addition, article 27(6) calls on the state to undertake, ‘legislative and other measures, including affirmative action programmes and policies designed to redress any disadvantage suffered by individuals or groups because of past discrimination’. This article prohibits both direct and indirect discrimination. Articles 56 and 260 of the Constitution are a clear demonstration of the intentions of the country to deal with the concerns of minority and marginalized groups. Chapter Four of the Kenyan Constitution contains a progressive Bill of Rights that makes international law a key component of the laws of Kenya and guarantees protection of minorities and marginalized groups. Under Articles 33, 34, 35 and 36, freedom of expression, the media, and access to information and association are guaranteed.

159. The Constitution of Kenya requires the State to address the needs of Indigenous Peoples, including “minority or marginalized” and “particular ethnic, religious or cultural communities” (Article 21.3): The Specific provisions of the Constitution include: affirmative action programs and policies for minorities and marginalized groups (Articles 27.6 and 56); rights of “cultural or linguistic” communities to maintain their culture and language (Articles 7, 44.2 and 56); protection of community land, including land that is “lawfully held, managed or used by specific communities as community forests, grazing areas or shrines,” and “ancestral lands and lands traditionally occupied by hunter-gatherer communities” (Article 63); promotion of representation in Parliament of “...(d) ethnic and other minorities; and (e) marginalized

¹⁸⁸ <https://www.iwgia.org/en/kenya>

communities” (Article 100); and an equalization fund to provide basic services to marginalized areas (Article 204). Kenya’s 2010 Constitution provides a rich and complex array of civil and political rights, socioeconomic rights and collective rights that are of relevance to indigenous communities. While important, constitutional provisions alone are not enough. They require a body of enabling laws, regulations and policies to guide and facilitate their effective implementation. In 2011, Kenya’s parliament enacted 22 laws. In the main, these laws are of general application and will have a bearing on the way in which the state exercises power in various sectors, some of them of fundamental importance to indigenous communities.

160. **The Forest Act (2005) and the Forest Policy (2007)** have the overall objectives of reducing the rate of deforestation and contributing to poverty reduction, employment creation and improvement of livelihoods through the sustainable use, conservation and management of forests and trees. The Forest Act also recognizes forest communities’ rights to continue to use the forest produce customarily taken from the forest, as long as these products are not to be sold on. A key element is to empower local communities to take an active role in forest management by registering as a Community Forest Association (CFA) and developing a management plan. Communities doing so may be granted a number of forest user rights relating to, for instance, the collection of medicinal herbs; harvesting of honey; harvesting of timber or fuel wood; grass harvesting and grazing; etc. (Sections 45-46 (2)).

161. **National Land Policy (2009)** sets the principles to secure land rights and encourage communities to deploy ‘recognized local initiatives’ to resolve land disputes. These principles are consistent with the informal approach to disputes of indigenous groups, such as pastoralists, which were previously subordinated by the constitutional and legal regime in Kenya. The NLP furthermore establishes the National Land Commission (NLC) and the institutional framework that will deliver reforms in the land sector at the community, county and national levels. It calls, among other things, for an appropriate legal framework for eviction based on internationally acceptable guidelines.

162. Land rights have long been an issue in Kenya, particularly affecting its minorities and Indigenous Peoples. The **Community Land Act (2016)** is an important window of opportunity for achieving land tenure security for Indigenous Peoples in Kenya, as it recognizes customary land and allows it to be documented for purposes of registration. The Act covers both former Trust Lands and Group Ranches and it replaces the previous Group Representatives Act, whereby communities could organize themselves and have their land rights recognized on a collective basis through ‘Group Ranches’. Most of Indigenous Peoples’ land is classified as community land, meaning that under the new Community Land Act this land should be recognized, protected and registered properly; however, there are concerns regarding lack of awareness of this Policy and how to apply for land registration (IWGIA 2021).

163. The **Environment and Land Court Act (2011)** is another domestic law that can be deemed to recognize the rights of Indigenous Peoples. Article 162(2)(b) of the Constitution gives parliament the authority to establish courts with the status of the High Court to hear and determine disputes relating to the environment and use and occupation of and title of land. The Environment and Land court was then established and is governed by the Environment and Land Court Act. The Act aims to enable the Court to facilitate the just, expeditious, proportionate and accessible resolutions of land disputes, but also those related to environmental planning and protection, climate issues, title, tenure, among others.

164. The **Forest Management and Conservation Act (2014)** built on the constitution’s recognition of customary tenure rights, including provisions for local communities to co-manage forest lands alongside the Kenya Forest Service, withdraw forest products, and establish plantation forests. Previously, these

activities were considered illegal. The Community Land Act (CLA) of 2016 also helped further secure community land rights and resolve historical injustices related to land.

165. **National Policy on Culture and Heritage (2009)** encompasses necessary steps to ensure the protection and promotion of culture and cultural diversity among Kenya's, it places culture and heritage at the center stage of development. The policy statement map out operational strategies and identifies the resources, approaches and administrative practices necessary for cultural renaissance and sustainable preservation of national heritage, both tangible and intangible (oral tradition, performing arts, social practices knowledge and practices concerning nature and the universe and traditional craftsmanship).

166. **Environmental Management and Coordination Act (1999)** and **Environmental Management and Coordination (Conservation of Biological Diversity and Resources, Access to Genetic Resources and Benefit Sharing) Regulations, 2006 (ABS Regulations¹⁸⁹)** are two key regulations in Kenya as they provide: i) detailed processes and rules for the conservation of biological diversity; ii) mechanisms to protect and prevent exploitation of endangered threatened plants and animals; iii) access to and the fair and equitable sharing of benefits arising from the utilization of genetic resources; iv) consultation of local communities in the process of accessing genetic resources for research, commercial and other purposes, amongst others.

167. **Protection of Traditional Knowledge and Cultural Expression Act (2016)** enables communities to control the use of culturally significant and economically valuable knowledge and expressions. It does this by creating a new form of intellectual property right (IPR), held by community itself. The Act includes criteria for the protection of traditional knowledge (TK) and specifies the rights of its holders, reiterating the community rights stipulated in the Access and Benefit Sharing framework. Among others, the Act recognizes communities' right to prior informed consent, their rights to govern the use of their TK according to their own rules, as well as their right to benefit-sharing including from, but not limited to, TK associated with genetic resources.

168. **International and regional treaties:** The Government of Kenya has no specific legislation on Indigenous Peoples and has not adopted the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) or ratified the ILO Convention 169. However, Kenya is a party to seven of the nine core international human rights treaties¹⁹⁰: International Covenant on Civil and Political Rights (ICCPR); International Covenant on Economic, Social and Cultural Rights (ICESCR); Convention on the Elimination of All Forms of Racial Discrimination (ICERD); Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT); Convention on the Elimination of All Forms of Discrimination against Women (CEDAW); The Convention on the Rights of the Child (CRC) and its Optional Protocol CRC-OPAC; and the Convention on the Rights of Persons with Disabilities (CRPD). Kenya has ratified several universal human rights instruments related to armed conflicts, is a member of the International Labor Organization (ILO) and has ratified 49 of its conventions, including C29 and C105 (on forced labor), C100 and C111 (on discrimination within employment and occupation), C138 and C182 (on child labor), all of which are specifically relevant to Indigenous Peoples. At a regional level, Kenya has ratified or signed the following regional human rights instruments: The African Charter on Human and Peoples' Rights (ACHPR); African Charter on Rights and Welfare of the Child; Protocol to the ACHPR on the Rights of Women in Africa; Protocol to the ACHPR on the Establishment of an African Court on Human and Peoples' Rights. In addition, Kenya is member of the regional East Africa Court of Justice (EAC Court of Justice).

¹⁸⁹<https://www.nema.go.ke/images/Docs/Regulations/Conservationofbiologicaldiversityandresourcesaccesstogeneticres.pdf>

¹⁹⁰ <https://www.iwgia.org/en/kenya>

6.3 Indigenous Peoples in the project site LREB (14 counties)

169. Kenya is a country of great ethnic, cultural, and religious diversity; it is also multilingual country with over 40 indigenous languages, numerous dialects, and several other languages¹⁹¹. In the country, the people who identify with the Indigenous movement are mainly nomadic herders and hunter-gatherers, as well as some fishing villages and small farming communities; and have distinct way of life. Most Indigenous People's economic livelihood consists of hunting and gathering, pastoralism, agriculture, beekeeping and the gathering of wild fruits. Traditional lands and territories of Indigenous Peoples form a key part in their identity. Land is a highly complex issue in Kenya; beside serving as a means of production for supporting community livelihoods, it also embodies the social, cultural, and spiritual identities of more than 40 Indigenous and local communities (Rights and Resource Initiative, 2020).

170. Most **hunter-gatherer** were traditionally nomadic or semi-nomadic communities that live in the forested areas of the Highlands and the coast or near rivers and lakes; this is where they used to hunt (and/or fish) and gather honey and other forest products. The livelihoods of these peoples depended on their possibility of moving freely around their territory, using different zones according to the seasons. Women's work included processing and cooking food, building traditional shelters, maintaining firewood and water supplies, most childcare, among others. Today, the hunter-gatherers' traditional way of life is at risk, as hunting is banned, and most hunter-gatherers no longer have access to their ancestral forests. Many have therefore been forced to turn to small-scale farming or work as day laborers. Their attachment to the forests, however, remains strong; culturally, their religious activities and rites take place in forest, which provides for food and medicine. Hunter-gatherers include the Ogiek, Sengwer, Yaku, Waata and Awer (Boni), while pastoralists include the Turkana, Rendille, Borana, Maasai, Samburu, Ilchamus, Somali, Gabra, Pokot, Endorois and others (IWGIA, 2022).

171. The pastoral peoples of Kenya are essentially patriarchal and are organized in patrilineal related households, clans and sections (IFAD&IWGIA, 2012). **The Indigenous pastoralist groups** include diverse communities such as Kalenjin (a collective term encompassing diverse Indigenous Peoples including the Kipsigis, Endorois, Tugen, Pokot and Sabaot), Maasai, Somalis, Borana and other groups. Most pastoralist are found on the arid and semi-arid lands (ASALs) of northern Kenya and towards the border between Kenya and Tanzania in the south. Within ASAL, the Maasai live in the southern part of the Rift Valley (Narok, Kajiado, Nakuru counties) and in Laikipia county; the Pokot, Endorois, Ilchamus and Turkana in the western and north-western part of the Rift Valley (Baringo and West Pokot counties); the Samburu, Rendille, Gabra and Borana in the northern part of the Eastern province (Marsabit, Samburu and Isiolo counties), and the Orma and Somali in the east and north-east (Tana River, Garissa, Wajir, and Mandera counties). The pastoralists of Kenya are nomadic and semi-nomadic stockbreeders. The Kenyan pastoralists rear cattle, goats and sheep. Livestock provides pastoral households with the milk on which they depend for their daily subsistence and with animals (especially small livestock) to trade and sell so that they can purchase grain, tea, etc (IFAD&IWGIA, 2012). Competition among nomadic groups over cattle and grazing combined with periods of drought have perpetuated a way of life, effects of climate change are also a current struggle and have increased conflicts over natural resources as communities (particularly pastoralists) compete for diminishing water, pasture and food resources¹⁹².

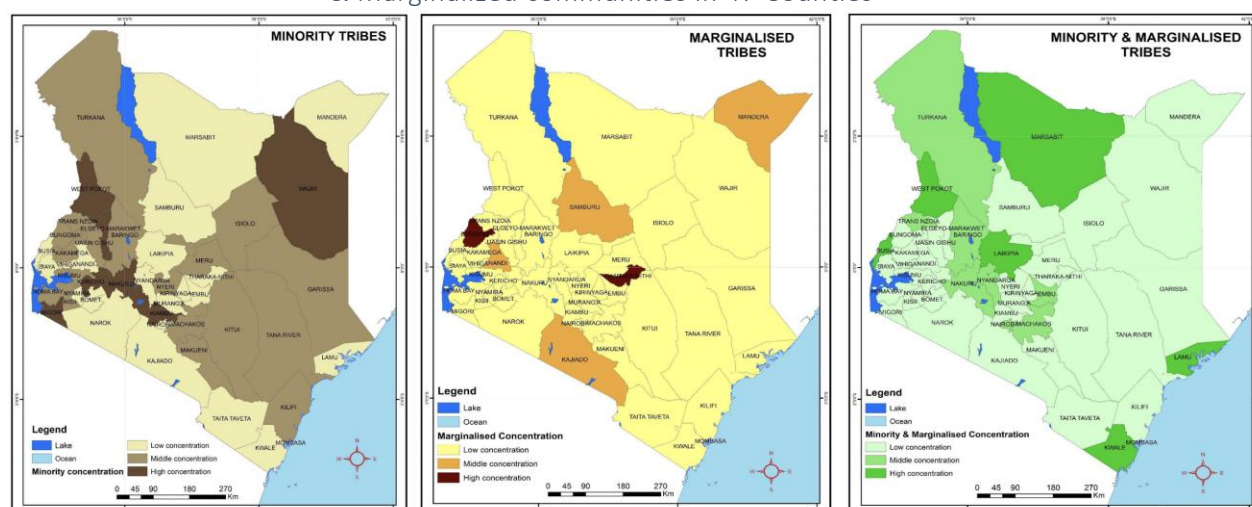
¹⁹¹ https://en.unesco.org/creativity/sites/creativity/files/activities/conv2005_eu_docs_kenya_policy.pdf

¹⁹² <https://minorityrights.org/minorities/pastoralists/>

172. The CoK, 2010, does not specifically use the term IP, it rather defines them as vulnerable and marginalized groups. Article 260 of the Constitution defines a “marginalized community” as: (a) a community that, because of its relatively small population or for any other reason, has been unable to fully participate in the integrated social and economic life of Kenya as a whole;(b) a traditional community that, out of a need or desire to preserve its unique culture and identity from assimilation, has remained outside the integrated social and economic life of Kenya as a whole;(c) an indigenous community that has retained and maintained a traditional lifestyle and livelihood based on a hunter or gatherer economy; or (d) pastoral persons and communities, whether they are (i) nomadic; or (ii) a settled community that, because of its relative geographic isolation, has experienced only marginal participation in the integrated social and economic life of Kenya as a whole.

173. Taking this into account, within the 14 counties (project area of influence) there are indigenous communities reported, among these, the most numerous communities - according to the population size- are Kikuyo, Luo, Kamba, Luhya, Kisii, Massai and Turkana (Kenya, 2019). Communities that are classified minority and marginalized vary from county to county (Figure 24). Some ethnic communities that are dominant at the national level are reported to be minority, and even marginalized in some instances in others.

Figure 24 Map showing concentration of a) Ethnic Minority; b) Marginalized tribes and c) Minority & Marginalized communities in 47 Counties¹⁹³¹⁹⁴



174. Though, under Kenya Constitution, these groups are normally referred as marginalized communities or ethnic minorities, some of these groups self-identified as Indigenous Peoples. Some Indigenous Communities that self-recognize as IPs that live and/or depend on the natural resources of the project area of influences, include: Ogiek, Sengwer, Talai, Maasai, Pokot, Turkana, Somali and Sabot (Table 6). It is important to highlight that there might be other groups or tribes that self-identify as IPs but through literature review, we have not been able to identify them. Demographic information on IPs in Kenya’s is rarely available, national census will include limited information of these groups.

¹⁹³ (NGEC, 2017)

¹⁹⁴ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Table 6 Indigenous Peoples in the 14 counties in LREB

Indigenous Peoples	Tribal affiliation	County	Estimated population (country level)	Livelihood	References
Ogiek	Kalenjin	Kericho, Bungoma, Nandi, Bomet, Trans Nzoia	52,596	Indigenous Hunter-gatherers	Kenya, 2019 NGEC, 2017 IFAD, 2009
Sengwer	Kalenjin	Trans Nzoia	10,729	Indigenous Hunter-gatherers	Kenya, 2019 NGEC, 2017 IFAD, 2009
Talai	Kipsigi & Talai	Kericho	N.D	Indigenous Hunter-gatherers	IFAD, 2009
Maasai	Maasai	Busia	1,189,522	Indigenous nomadic and semi-nomadic pastoralists and agropastoralists	Kenya, 2019 NGEC, 2017 IFAD, 2009
Pokot	Kalenjin	Trans Nzoia	778,408	Indigenous nomadic and semi-nomadic pastoralists and agropastoralists	Kenya, 2019 NGEC, 2017 IFAD, 2009
Turkana	Turkana	Trans Nzoia	1,016,174	Indigenous nomadic and semi-nomadic pastoralists and agropastoralists	Kenya, 2019 NGEC, 2017 IFAD, 2009
Somali	Somali	Kisumu, Kericho, Migori, Kisii, Busia, Homa Bay, Kakamega	579,701	Indigenous nomadic and semi-nomadic pastoralists and agropastoralists	Kenya, 2019 NGEC, 2017 IFAD, 2009
Saboot	Kalenjin	Busia, Bongoma	296,374	Indigenous nomadic and semi-nomadic pastoralists and agropastoralists	Kenya, 2019 NGEC, 2017 IFAD, 2009

Note: This list is indicative, not comprehensive and exhaustive, as there are often little-known groups of hunter-gatherers scattered and nomadic groups.

Source: Authors' own elaboration.

175. The **nature of the challenges faced by indigenous communities** are common across counties, and include: land and resource tenure insecurity, political under representation; poor service delivery; water scarcity and food insecurity limited access to employment opportunities; ethnic profiling and discrimination in issuance of identification documents; isolated settlements/excluded settlements; high illiteracy levels; high poverty; poor infrastructure, poor sanitation and understaffing of social amenities; harmful cultural practices such as early marriages, female genital mutilation, gender bias in economic empowerment (NGEC, 2017). Their situation seems to get worse each year, with increasing competition for resources in their areas (IWGIA, 2022). In this regard, Indigenous Peoples and marginalized communities living in the targeted districts and selected sites may, could experience difficulties in accessing project support.

176. Based on the screening assessment, it is concluded that IPs are present in, or have collective attachment to the project area. Therefore, a Free Prior and Informed Consent (FPIC) process will be implemented following FAO guidelines, to ensure an effective and inclusive participation approach of potential affected indigenous communities. FPIC is a human rights principle and standard that embodies the right of Indigenous Peoples to their lands and to participate in decision-making processes that could affect their livelihood, rights and traditional way of life. Following the results of the FPIC, an Indigenous

Peoples Plan (IPP) will be drafted in consent with the involved IPs (refer to Appendix 8 of this ESMF). All project activities should be consistent with IPs tenure rights (formal and informal) and take into consideration the traditional and/or customary rights of these communities, ensuring IPs preserve their rights to access their land and resources (lands, forests, tenure systems, government established compensation frameworks, etc). As a basic principle, all engagement with IPs will be culturally sensitive, seeking to empower Indigenous communities and protecting and valorizing their ancestral knowledge and rights.

6.4 Potential risk and impacts of the project on Indigenous Peoples

177. Taking into account the complexity of the social fabric of the project site and the increasing pressure on natural resources, unintended impacts on Indigenous Peoples/communities might be possible, some of which have already been identified (Chapter 4 and 7). Project supports adoption of CRLCSA practices and other good agricultural and industry practices that will increase production, productivity and quality of key six value chains and while also enhancing resilience to climate related hazards, improving the overall capacity of farmers/smallholders to cope with climate change impacts, diversify their incomes and improved capacity and governance systems to response those shocks. The project seeks to address adverse impacts through the noted management approaches as well as identifying the need for conducting additional risk screening and developing E&S management plans based on more detailed assessment of specific project locations and the target beneficiaries, during early project implementation along with FPIC. Furthermore, feedback obtain from FPIC process might conclude on the need to implement an Indigenous Peoples Plan – IPP (refer to Appendix 7 and Appendix 8).

178. Due to the nature of the proposed project and its underlying activities, it is not anticipated that indigenous groups will be exposed to any additional negative impacts or risks arising from the project beyond those described in the Environmental and Social Management Framework (ESMF), however some additional risk and mitigation measures could be identified in the FPIC and ESMPs. The project aims to cause no harm to IPs, and a exclusionary list of activities have been included under Appendix 1 of the current document. Main risks related to the project activities on IPs (includes transhumant herders) include:

- Inadequate inclusion of IPs in the project activities, planning process and/or lack of sensitivity to ongoing societal and cultural constraints could widen already existing social economic gaps within indigenous population.
- Increase tension and competition for resources access and use between different indigenous communities and marginalized groups in the LREB region.
- Unclear tenure on forest lands and communal lands and changing lifestyles (e.g. migrations) could reduce the effectiveness in the adoption of CRLSCSA measures.
- Potential restrictions on land use and access to natural resources subject to traditional ownership or under customary use (e.g. affect IPs and their livelihood such as restriction or loss of access to grazing land, access to places of importance to IPs for ceremonial/ritual or spiritual purposes, restriction to harvest/use medicinal plants, etc.). For example, conservation strategies and measures that overlap with IP territories could affect IPs way of live, cultural patrimony and overall cosmovision, in case project don't engage properly with the affected indigenous communities and obtain consent from them.

179. The aforementioned challenges and constraints will be factored into any eventual Environmental and Social Management Plan (ESMP), FPIC and the Indigenous Peoples Plan (IPP), aiming at avoiding and mitigating adverse E&S risks and impacts and to ensure equitable access to benefits for Indigenous

Peoples. Through a participatory approach (including meaningful and effective consultations), the project's aims to address adverse effects of climate change on Indigenous communities that live or depend on the natural ecosystem within the project area of influences. Some of the mitigation measures included to prevent and mitigate potential adverse risks and impacts are:

- Participation in the project is voluntary, and FPIC will be a cross-cutting principle applied to ensure that free, prior and informed consent is provided prior to the implementation of any activities with a formal and fully recorded FPIC process applied where IPs are present.
- Involve IPs in decision-making bodies/structures (such as any project local or regional Committee) throughout the entire project lifecycle, ensuring a broad and continuous participation during the project cycle of all community members incorporating a gender and intergenerational approach where, women, elders and youth are actively involved in the project. The project has included representatives from IPs as a member of the Project Technical Coordinating Committee (PTCC) to enhance the involvement of IPs in decision-making process.
- Consultative meetings between the IPs and the project are to be conducted according to IP's own rules and traditions; with freedom to establish and select their representative institutions or decision-making bodies (e.g. village council or a group of elders appointed by consensus) for FPIC consent-based negotiations, according to their own procedures and laws. This will ensure IPs are able to adopt measures that are well suited to their local context and differentiated vulnerabilities.
- County's Integrated landscape management strategies and watershed management strategies will build on community level land-use approach, incorporate the right to sustainable use of both flora and fauna of IPs in a manner consistent with their cultural patrimony and cosmovision of IPs (follow FPIC). Furthermore, these County Strategies will ensure the cultural, social and economic rights of nomadic or semi-nomadic pastoralist/herders are preserved/respected. Potential risks will be discussed through ongoing stakeholder engagement processes.
- Established a mutually agreed, culturally appropriate, accessible and inclusive channels for feedback and Grievance Redress for Indigenous Peoples. The PMU and FAO will ensure that Indigenous Peoples have access to inclusive communication channels and redress mechanism (GCF, FAO and at project level) to share thoughts, issues arising during project implementation related activities throughout project cycle.
- Employ FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests (VGGT).
- No set aside land or additional conservation areas (e.g., national park) will be established as part of the project.
- When possible, and as agreed with Indigenous communities, the project will support the integration of traditional knowledge and practices within CRLCSA technologies/practices and will promote inclusive and participatory consultation process to identify and promote CRLSA practices that are compatible with IPs cultural practices and customs. Furthermore, project will support IPs intergeneration traditional knowledge transfer through their cultural ways and forms.
- Training of trainers for the for the implementation of project activities should include men and women from Indigenous groups. Project will consider, the production of information and capacity building materials in IP languages or dialects to enhance access across groups and facilitate peer to peer learning.
- Conduct sensitization campaigns with project staff and executing entities on IPs rights, ESMF mitigation measures and monitor potential project impacts on marginalized and vulnerable groups.

180. Positive impacts: the project has an important potential for contributing the country's needs on participatory and inclusive development, as it: i) promote inclusive and participatory decision-making process within county planning and land zoning processes taking into account needs and rights of indigenous communities; ii) integrate women's, PLWD, and youth and IPs representation and participation within the key value chains; iii) increased gender equality and social inclusion in access to/control over agricultural inputs, agricultural finance, and agri-climate information and services and agricultural extension; iv) enhance adaptive capacity of farmers and marginalized groups to confront climate change impacts; v) improved levels of food and nutrition security through diversification and increased production of key crops and commodities; vi) promote decent working opportunities for marginalized groups and enhance their capacity (inclusive training) to integrate them within higher or specialized links of the key value chain.

181. The Project will adopt and promote practice to increase climate resilience and enhance carbon sequestration through: agroecology and agroforestry practices along with other nature-based solutions; integrated pest management (IPM); integrated water management practice, reforestation and rehabilitation of degraded sensitive areas and promote the increased use of renewable energy (e.g. waste to energy loops, solar air drying and heating technologies energy through the adoption mainly of solar energy, among others). Therefore, the project activities are aligned with the joint declaration of Social Movements and Peasant farmers, Faith-Based Organizations and CSO delivered at the "African People's Summit" ahead of the 6th EU-Africa Summit¹⁹⁵. Thereby, the project recognizes, value and support the vast potential of peasant agroecology to sustainably increase food security and sovereignty, reduce poverty and hunger, while conserving biodiversity and respecting indigenous knowledge and innovation. Furthermore, the project also recognizes and support small-scale farming as a viable structural model for the development of the agricultural sector and to increase climate resilient and reduce GHG emission through agroecology and other nature-based solutions; seeks to dynamize rural economy through the support of key value chains and support investments in a decentralized clean energy through the adoption of solar energy.

6.5 FPIC process

182. As per FAO E&S guidelines and standards, the Organization programmes and projects are designed in partnership with Indigenous Peoples, with their full, effective and meaningful consultation and participation, and with the objective of obtaining their Free, Prior and Informed Consent (FPIC) before any project activities commence. Furthermore, projects should ensure that IPs obtain fair and equal opportunities supported activities and from commercial development of their lands or resources in a culturally appropriate and inclusive manner, with due consideration given to gender equality. FPIC is a specific right that pertains to IPs and is recognized in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). All the elements within FPIC are interconnected and are part of the whole. FPIC should be seen as a mechanism, as a process, where not only the qualitative parts are extremely important but also considering that there is a series of key elements that are interconnected:

- **Free:** Independent process of decision making
- **Prior:** Right for indigenous peoples to undertake their own decision-making process regarding any project that concerns them before its implementation
- **Informed:** Right to be provided and to have sufficient information on matters for decision-making
- **Consent:** Collective and independent decision of impacted communities after undergoing their own process of decision making

¹⁹⁵ <https://www.cidse.org/wp-content/uploads/2022/02/EN-African-Peoples-Declaration.pdf>

183. Consent should be sought before any project, plan or action takes place (prior); it should be independently decided upon (free); and based on accurate, timely and sufficient information provided on a culturally appropriate way (informed) for it to be considered a valid result or outcome of a collective decision-making process. During FPIC consultation and the implementation of IPP, the project will consider having a tailored approach to engage with nomadic pastoral communities in case the project has identified their presence in the target areas. FPIC allows indigenous communities to give or withhold consent to a programme or project that may affect them or their territories. Once they have given their consent, they can withdraw it at any stage of the project cycle. FPIC also enables indigenous communities to negotiate the conditions under which the project will be designed, implemented, monitored and evaluated. The FPIC process aims at:

- Ensuring a positive engagement of Indigenous Peoples and adequate participation of youth and women in the programme or project;
- avoiding adverse impacts, or when avoidance is not feasible, minimizing, mitigating, or compensating for these impacts in accordance with the agreement of Indigenous Peoples; and
- tailoring benefits in a gender-responsive and culturally appropriate way

184. Participation within the CRLCSA project is voluntary, and continuous effective engagement will be a core underlying principle the principles utilized with all community-based organizations while a full and formal FPIC process will be used when IP groups are engaged. To participate in the project, FPIC principles will be followed as per FAO Indigenous and Tribal People Policy and FAO FPIC Manual for Project Practitioners, and other institutional complementary guidelines that are compatible with GCF Indigenous Policy. As part of these ESMF, an environmental and social analysis of the activities that may affect or involve Indigenous Peoples has been carried. Results of this assessment, along with other project relevant documentation is to be shared with IPs throughout project implementation.

185. FAO recognizes that Indigenous and traditional knowledge is valuable for identifying and addressing potential risks, including hazards and disaster risks, and should be incorporated into the entire programme or project cycle, as part of the development of ESMPs, FPIC and IPPs, and relevant project strategies, the perspective of indigenous groups will also be taken into consideration. Specifically

186. To determine potential impacts of project on Indigenous Peoples communities, as well as the scope and classification of the FPIC activities, the following FPIC assessment screening was conducted (Table 10). This screening process conducted help to determine the risk level the project could have on Indigenous Peoples, and to identify potential mitigation actions. Additional risks and actions can be identified as part of the outcome the FPIC process.

Table 7 FPIC Assessment Checklist – Screening Tool

Criteria	Yes	No	Details
Are there any indigenous communities in the project area or will the project activities involve indigenous peoples directly?	Yes		There are several indigenous communities (e.g., nomadic herders and hunter gatherers) in the project area, these include communities who are resident upon the lands affected by the project as well as those who are nomadic or who seasonally migrate over relatively short distances, and whose attachment to ancestral territories may be periodic, seasonal, or cyclic in nature. Indigenous Peoples (including women, youth, elderly, and disabled), may be directly involved in the awareness and capacity development, farmers field schools, and local planning processes and/or adoption of CRLCSA practices. Main risks are mostly related with Output 2 and 3. Furthermore, inadequate inclusion of Indigenous Peoples and marginalized communities in the project activities and/or lack of sensitivity to ongoing societal and cultural constraints could widen already existing social economic gaps within these groups (mainly under Output 1, 3 & 4). Through FPIC and continuous engagement process, the project will ensure that Indigenous Peoples are informed of and understand: (i) their land rights under applicable law and obligations and under relevant international treaties and agreements; (ii) the scope and nature of the activities proposed; (iii) the potential impacts of the activities proposed; iv) enable them to benefit equitable from project activities.
Are project activities likely to have adverse effects on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible)?	Yes		Some of the project activities could impact without major disruption indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions and governance systems, for example, some activities could affect Indigenous Peoples and their livelihood (e.g. loss of access to grazing land, interference with pastoralist livelihood), if these groups are excluded from planning and decision making-processes (e.g. indigenous groups are represented in project main Committees). Any restrictions on land use and access to natural resources subject to traditional ownership or under customary use (under Output 2) will be addressed by ensuring IPs rights are respected and that they are involved in the development of these strategies. The consent of indigenous people will be informed as the project will ensure (through on going stakeholder consultation process, FPIC and capacity building activities) that relevant information is given to indigenous groups in an accessible manner, involving all vulnerable groups (youth, women, the elderly, and persons with disabilities), and allowing sufficient time for them to discuss in their local language and freely express their consent. The project consultation process and project-level GRM will facilitate to integrate within the project, the needs and priorities expressed by the involved indigenous communities in manners that are culturally appropriate. Additionally, FAO and project executing entities and partners will follow the guiding principles and good practices of responsible tenure governance as articulated in the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT). Project will closely oversee that the project activities do not overlap with the ancestral rights and traditions of Indigenous Peoples, to avoid any restriction on indigenous groups rights, lands, natural resources, territories, livelihoods, knowledge.

Criteria	Yes	No	Details
Are indigenous communities outside the project area likely to be affected by the project?	Yes		It is not expected that Indigenous Peoples outside the project area are affected by the project activities. The project recognizes customary use rights of Indigenous Peoples and marginalized communities, and through FPIC and effective and inclusive on-going stakeholder engagement processes throughout project lifecycle, these risks shall be addressed. Furthermore, project aims at involving Indigenous groups at decision making-process, respecting Indigenous People customary rights. Potential risk are mostly related to Output 2 in case due diligence process is not followed. The project will target mainly smallholder farmers, it is not foreseen that Indigenous Peoples will be directly targeted, as Indigenous Peoples in the region (such as pastoralists and hunter-gathers) are not engaged in the project target VCs. However, under Component 2, the project will develop and implement county's Landscape Management Strategies that could potentially impacts on Indigenous Peoples livelihood (e.g. loss of access to grazing land, interference with pastoralist livelihood), if these groups are excluded from planning and decision making-processes . Furthermore, risk and mitigation measures in the ESMP and related annexes will be updated based on the results of the FPIC.
Will the project activities result in displacement of IPs?		No	The project activities will not lead to involuntary resettlement or displacement of people or communities; resources from the project will be used for land acquisition or resources (refer to Appendix 1 - Exclusion List). Proposed activities will mostly imply the involvement of communities on a purely voluntary and demand-driven basis. All project activities will be subject to E&S Screening to ensure no displacement/resettlement takes place.
Will there be activities involving the sacred grounds, burial sites, cultural and heritage sites, critical and special areas identified by the IPs?		No	Refer to exclusion list (Appendix 1), the project recognizes that these are excluded areas and can be used only for the purposes for which they were established. Activities under component 2, related to planning process (Landscape Management Strategies of the counties) shall map or delimit these areas. Chance Find Procedure is included (Appendix 4)
Will there be project activities undertaken inside the ancestral lands and ancestral domains?	Yes		Some project activities undertaken inside the ancestral lands and ancestral domains, demonstration farms, farmers field schools, capacity building activities (include knowledge sharing) can be carried inside the ancestral lands and ancestral domains. In addition, small scale use and storage of certain agriculture inputs could also take place in these community areas. Whenever possible, these locations will be avoided. Project activities undertaken inside the ancestral lands and/or of ancestral domains will require FPIC, to ensure consent is provided prior to the installation of the facilities and will include the determination of the compensation for the land to be used. Ancestral lands and domains, cultural and heritage sites, land traditionally owned by, or under customary rights of Indigenous Peoples (which include hunter-gatherers, pastoralist and other ethnic and marginalized communities) are to be identified and mapped/zoned within the Landscape and watershed Management Strategies that are to be developed as part of Component 2.

Criteria	Yes	No	Details
Will there be project activities involving research on indigenous knowledge, systems and practices related to agriculture, forestry, watershed and resource management systems and technologies?	Yes		To some extent, the project might compile and integrate indigenous knowledge and practices to be implemented as CRLCSA practices; or could eventually support the integration of traditional knowledge in land management and watershed strategies, respecting customary sustainable use of biodiversity. Additionally, genetic resources or associated traditional knowledge of indigenous and local communities could be used solely for production and human consumption, respecting in all cases the intellectual property right and food sovereignty. In such cases, FPIC or approval and involvement of indigenous and local communities will be required, any information gather or to be shared with a third party, will required appropriate consent from Indigenous People. Measures to protect Indigenous Peoples' rights, value systems, community intellectual property rights are guaranteed by the project and will be formally agreed during the FPIC process. The project will promote the use of local/native species and varieties; however if there are introduction of plant or animal varieties it will be with due consideration and risk assessment of the impact of those varieties could have on local varieties and the ecosystem. Risks are mainly related to Output 2, 3 and 4.
Will there be gathering of genetic resources for bio-prospecting?		No	If there are instances of gathering of genetic resources such as seeds, it will not be for the purposes of applying the derived knowledge for commercial purposes. Seed banking in Indigenous Peoples areas will be (i) IP-led; (ii) primarily for their own benefit; and (iii) within the framework of farmers' rights to seed and the FPIC of the IPs. Risks are mainly related to Output 3 and 4.

Source: Authors' own elaboration.

187. Furthermore, screening of all the sub-project activities will be a mandatory requirement to determine if Indigenous People are present in or have collective attachment to, the project area (Appendix 6). In conducting this screening, the technical judgment of qualified social expert (e.g. Indigenous Peoples consultant/specialist) will be sought under FAO-Kenya Office. All consultation with the IPs and marginalized communities are to be coordinated with the County Offices and executing agencies.

188. FPIC requirements:

- A. Identification of Indigenous Peoples¹⁹⁶:** In accordance with international consensus and as per the FAO Policy on Indigenous Peoples, FAO considers the following criteria to identify indigenous peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist).
- B. Identification of rights over land, territories, and natural resources:** Indigenous peoples are entitled to own, use, develop and control the lands, territories, and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those that they have otherwise acquired¹⁹⁷.
- C. Providing Prior Assessment of the Impact on Indigenous Peoples:** All projects that may impact Indigenous Peoples must carry out an assessment and verify: i) whether Indigenous Peoples

¹⁹⁶ FAO Policy on Indigenous and Tribal Peoples. https://www.fao.org/fileadmin/user_upload/newsroom/docs/FAO_policy.pdf

¹⁹⁷ Article 26(1) of the UNDRIP

inhabit the proposed project area(s) and, if so, include disaggregated data by indigenous group and geographical location; and ii) whether project activities may impact (even indirectly) indigenous peoples living outside the project area.

D. Ensuring Free, Prior and Informed Consent (FPIC): FAO requires that, before adopting and implementing projects and programmes that may affect¹⁹⁸ indigenous peoples, a process of Free, Prior and Informed Consent is followed and consent given by the indigenous community.

189. The principle of Free, Prior and Informed Consent (FPIC) is an international right that pertains to Indigenous Peoples, however, it has not fully been developed or adopted in Kenya. There are ongoing efforts by several Indigenous Peoples and minorities (pastoralists, hunter-gatherers, fisher-folks, forest communities and agro-pastoralists) in developing a FPIC tool kit via a participatory process, however this tool is yet to be finalized and piloted (IWGIA¹⁹⁹). Other example of ongoing efforts are the Biocultural Community Protocols, such as the one developed by the Endorois Community Protocols (draft stage), the protocols articulates community-determined values, rights, religious practices, social organization, governance, procedures and priorities and clarifies the decision-making process of the Endorois for prior informed consent, in the context of upcoming Access and Benefit Sharing agreements (Natural Justices, 2018) and (Alvarado, 2022).

190. The project will apply the principle of obtaining free, prior and informed consent (FPIC) as per FAO Policy on Indigenous and Tribal Peoples²⁰⁰ and FAO environmental and social safeguards. The FPIC allows indigenous communities to give or withhold consent to a programme or project that may affect them or their territories. Once they have given their consent, they can withdraw it at any stage of the project cycle. FPIC also enables indigenous communities to negotiate the conditions under which the project will be designed, implemented, monitored, and evaluated. This is also embedded within the universal right to self-determination. The following considerations should be followed:

- Ensure adequate participation of indigenous youth, women, elderly and PLWD in the consultation processes which should be gender-responsive and culturally appropriated.
- FPIC process shall be fully followed, consent must be obtained from legitimate indigenous leaders and/or the indigenous communities before undertaking any project activities affecting indigenous people's rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible).
- As part of the FPIC process, substantial information shall be compiled on the rights, property interests, tenurial arrangements, and traditional resource usage; placing attention on the specific needs of both women and men, youth and elderly; and taking into account the institutions, rules and customs of the involved and affected Indigenous Peoples.
- The collective rights to own, use, develop, and control lands, territories (which may include waters) and resources that they have traditionally owned, occupied, or otherwise used or acquired should be respected by the project activities.
- An Indigenous Peoples Plan (IPP) will be prepared following the results of the FPIC process if the project or its activities have significant negative impacts. The IPP should outline the actions to avoid, minimize and/or compensate for adverse impacts in a culturally appropriate manner. This plan will be developed in full consultation with the involved and affected communities, including

¹⁹⁸ The FPIC process needs to be undertaken whenever the project may affect indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible).

¹⁹⁹ <https://www.iwgia.org/en/kenya.html>

²⁰⁰ <https://www.fao.org/publications/card/en/c/2ead5dd4-4fa1-46ef-9a3e-d6296fe39de9/>

women and youth, and in accordance with the FAO Policy on Indigenous and Tribal People. IPP should be discussed and approved by the involved indigenous communities.

191. As there is no national protocol or guideline to carry FPIC process in Kenya, the Project will follow FPIC Manual²⁰¹ and Practical Guidance document for Respecting FPIC²⁰², which are consistent with GCF Indigenous Peoples Policy. This process will be led by FAO, in close collaboration with state actors (national and local government such as County Offices), and with local non-state actors stakeholders (e.g., CSOs/NGOs, representatives of the communities, indigenous peoples, etc.) and executing entities

6.6 Recommendations for implementation

Implementation Arrangements

192. FAO will set up a dedicated Project Task Force²⁰³ (PTF) in line with FAO project cycle guidelines. The PTF will be composed by the Budget Holder (BH), the Lead Technical Officer (LTO), Funding Liaison Officer (FLO), HQ Technical Officer and other technical officers, as appropriate. Additionally, a Project Management Unit will also be established. The PMU will include a project coordinator, finance officer, operation officer, human resources & admin officer, and procurement officer & other technical specialists to be hired to support implementation of the ESMS (e.g., specialist on: Gender and Social Inclusion, Indigenous specialist, Land Tenure).

193. Prior to implementation, each sub-project/sub-activity will be assessed (using screening list on Appendix 6) to identify whether any previously unidentified adverse impacts on IPs are likely and whether the need for FPIC and an IPP is triggered. This assessment or screening process will be carried with the technical judgment of a qualified social expert (e.g., IP consultant/specialist or E&S specialist) under the PMU.

194. The implementation of this IPPF and related documents (FPIC and IPP) will be lead by FAO and PMU Technical Specialist, in close coordination with the County Offices, and executing entities. All PMU staff, implementing partners, executing entities and contractors will participate on awareness raising and capacity building activities to enhance their capacity regarding culturally appropriate interaction and collaboration with Indigenous peoples; including compliance with any mitigation measures to ensure that IPs right as respected and to provide equitable access to project benefits.

195. All community members, including women, youth, elders and PLWD will be equally involved in the FPIC process; however, there could be some communities in which the prevailing indigenous self-governance systems and structures state otherwise (e.g., indigenous communities with strong patriarchal hierarchies). In such cases, good practices shall be taken into consideration to guarantee a participatory and inclusive consultation process: i) separate discussions with each specific group; (ii) provision of accessible, community-friendly information materials; (iii) selecting discussion venues located inside the community to enable women, elderly persons, and youth to attend; (iv) provision of feedback boxes in the community during the FPIC process; others. In cases where the same project areas include communities comprised of both indigenous and non-indigenous individuals, general orientation will be provided to both groups, however the detailed discussions and consent seeking process will be separately undertaken for these two groups.

²⁰¹ <https://www.fao.org/3/i6190e/i6190e.pdf>

²⁰² <https://www.fao.org/3/i3496e/i3496e.pdf>

²⁰³ The PTF will remain independent from the Executing Entity functions also performed by FAO

196. In no case shall Project activities that may adversely affect indigenous peoples – including the existence, value, use or enjoyment of their lands, resources or territories – take place before carrying out FPIC process with affected communities. Dissemination of project information (E&S plans, evaluation documents, etc.) and disclosure of consultation processes shall be conducted through appropriate/preferred communication channels (e.g. local newspapers, through local radio broadcasts and at customary meeting locations, throughout the district, province, etc.), in accessible format and language, and in locations that are easy to access, taking into consideration existing gender constraints. The consultation processes shall be documented, in writing and through audio-visual recording if appropriate to cultural protocols.

Monitoring and reporting

197. ToRs for PMUs technical specialist will be prepared, including required competences and the responsibilities to implement IPPF and related plans (FPIC, IPPs) and to monitor and report on the status of implementation of the Plans. As an accredited entity, FAO will be responsible for project monitoring and reporting, including overall environmental and social performance (e.g., status of implementation of different E&S plans and mitigation measures).

198. Following the results of the screening process and FPIC process, an IPPs will be developed with the support of FAO Indigenous Peoples Specialist/Unit and in consultation with the involved and affected communities. The IPP will (a) ensure continued consultations during project implementation and monitoring and evaluation arrangements, with the adequate engagement of women and youth; (b) avoid, minimize, mitigate, or compensate for any adverse effects; and (c) ensure that IPs receive what they consider to be appropriate benefits. An outline of the IPPs is included in Appendix 8, but should include: i) baseline information; ii) key findings and analyses of impacts, risks and opportunities; iii) measures to avoid, minimize and mitigate negative impacts, and enhance positive impacts and opportunities; iv) results of consultation process, including a list of people and organizations that participated, a timetable, who was responsible for each activity, the free, prior and informed consent, and future engagement plans; v) Costs, budgets, timetables, institutional arrangements, organizational responsibilities for implementation of the IPP, among others.

199. Participatory and transparent monitoring arrangements and progress indicators shall be agreed with affected communities. The feedback systems (grievance mechanism) should be accessible and culturally appropriate; additionally, any conflict resolution mechanisms shall be based on existing customary dispute settlement mechanisms, unless stated differently by the local communities. Regular on-ground monitoring is included within IPP, and an independent third-party evaluation is advised for the terminal report.

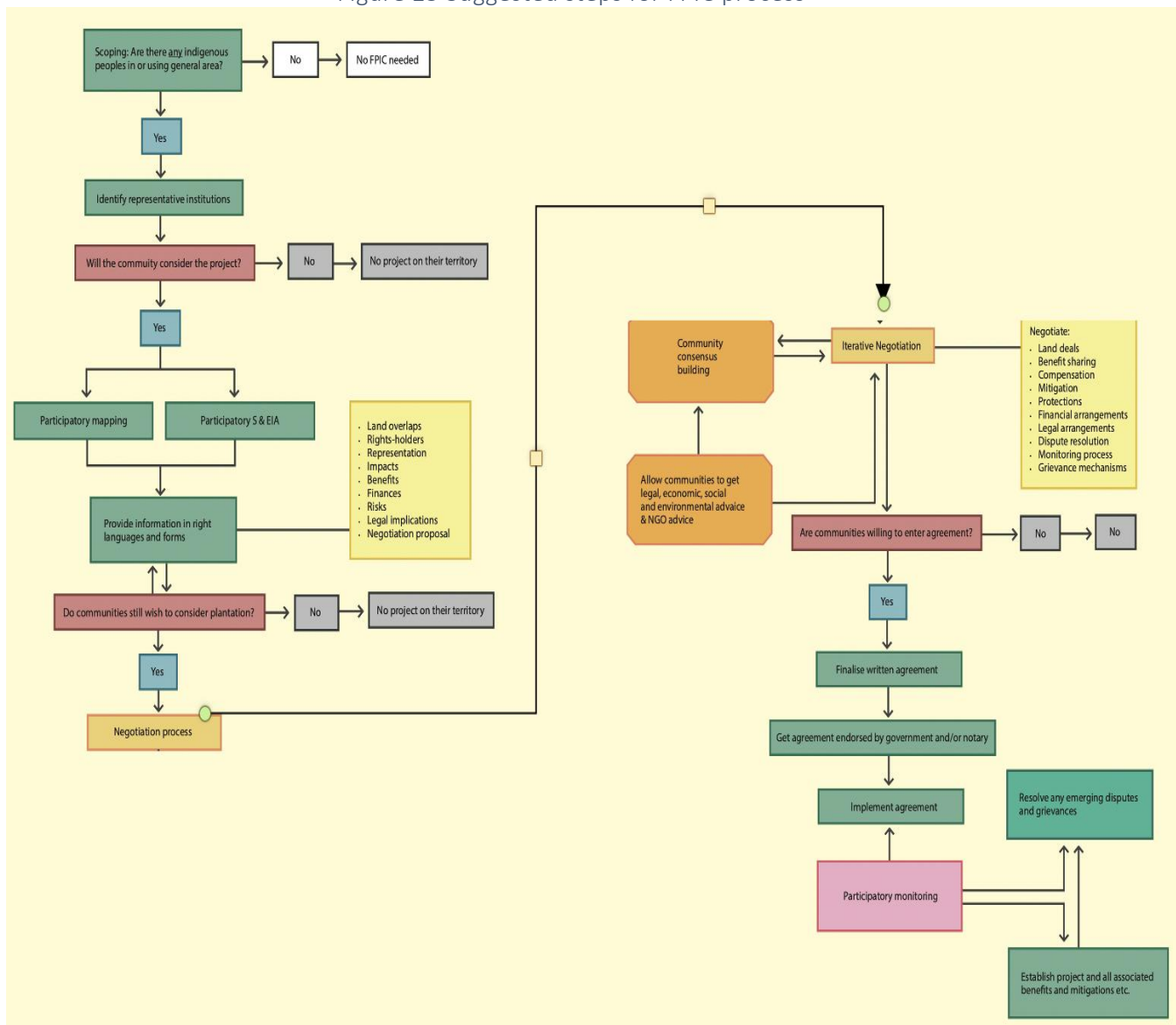
6.7 Grievance process for indigenous communities

200. GRM is an integral part of the Project. For the case of Indigenous Peoples and marginalized groups, the GRM at project-level should be widely discussed and agreed with the involved communities as part of FPIC process and will be described in the IPP in accordance with the GCF Indigenous Peoples Policy. This could be through a panel or committee of key representatives and independent advisors, periodic interviews with community members by independent entities, a collection box for written and anonymous feedback, and so forth. Where customary grievance mechanisms exist and the communities choose to follow them, this should be respected by FAO and other involved parties. This identification and discussion of local GRM will be part of the FPIC process to be developed at an early project stage, once that the

specific site locations for the project activities have been decided upon and a complete mapping of Indigenous People has been conducted. Furthermore, an agreement should also be established regarding: i) the process to review and investigate grievances (tracking and response system); ii) resolution options (e.g., compensations, sanctions, etc.); iii) monitoring of grievances and reporting of results from the investigations (access to information); iv) formalization of the GRM that is consistent with their customary norms. Agree GRM with local communities shall be:

- **Legitimate:** having a clear, transparent and sufficiently independent governance structure to ensure that no party to a particular grievance process can interfere with the fair conduct of that process.
- **Accessible:** being publicized to those who may wish to access it and provide adequate assistance for aggrieved parties who may face barriers to access, including language, literacy, awareness, finance, distance, or fear of reprisal.
- **Predictable:** providing a clear and known procedure, with time frames for each stage; clarity on the types of process and outcome it can (and cannot) offer; and means of monitoring the implementation of any outcome.
- **Equitable:** ensuring that aggrieved parties have reasonable access to sources of information, advice, and expertise necessary to engage in a grievance process on fair and equitable terms.
- **Rights-compatible:** ensuring that its outcomes and remedies accord with internationally recognized human rights standards. and
- **Transparent:** providing sufficient transparency of process and outcome to meet the public interest concerns at stake and should presume transparency wherever possible; non-State mechanisms in particular should be transparent about the receipt of complaints and the key elements of their outcomes.

Figure 25 Suggested steps for FPIC process²⁰⁴



Source: Authors' own elaboration.

201. Before initiating any project activities, full FPIC will be conducted in the relevant communities and will involve confirmation of the community-specific Grievance Redress Mechanism (GRM) required. This will be detailed in any IPP developed under the project. The GRMs confirmed in the respective IP plans (determined through the FPIC process) will abide by the following guiding principles, in addition to the overall guiding principles listed previously:

- **Primacy of customary law** including the upholding of laws (oral or written) in resolving disputes involving I Indigenous Peoples.
- **Cultural sensitivity** to the community's norms and preferences.
- **Inclusivity and accessibility**, including for women, youth, disabled peoples, and the elderly.

²⁰⁴ Source: FAO. 2014. Respecting free, prior and informed consent, practical guidance for governments, companies, NGOs, indigenous peoples and local communities. Available at: <https://www.fao.org/3/i3496e/i3496e.pdf>

- **Trustful and transparent** to allow for two-way information sharing, proven accountability, and good faith engagement.
- **Opportunity for anonymity**, particularly in instances where the claimant may be otherwise put at risk.
- **Timely action**, includes a clear timeline for response,

202. **Budget consideration.** The cost for FPIC implementation includes documentation, food, transportation, facilitation. Monitoring cost have been included as part of the M&E component of the project.

7 Expected project impacts

7.1 Relevant FAO and GCF environmental and social safeguards management guidelines

203. **FAO Framework for Environmental and Social Management (FESM)** provides a set of tools to manage and improve FAO's environmental and social performance through a risk- and outcome-based approach: i) establishing the criteria for the risk screening and risk categorization processes along with the procedures and management conditions for each risk category; ii) setting out meaningful, effective and informed participation of all stakeholders in projects' formulation and implementation, as well as the grievance, conflict-resolution and accountability mechanisms to prevent and mitigate adverse impacts.

204. **Project Risk categorization:** The project is expected to predominantly generate substantial positive environmental and social benefits through the transformation of key agricultural value chains by the adoption of climate resilient, low-carbon sustainable agricultural practices and technologies. Some of main benefits include strengthening the resilience of farmers (reducing their sensitivity to current and projected climate risks and simultaneously improving their adaptive and coping capacity); reducing Greenhouse Gas (GHG) emissions (promotion of renewable energy, improvements in land and water management (e.g., agro-forestry, reforestation, watershed management); among others. Besides all positive impacts, the project also has the potential to generate potential to generate adverse social and environmental impacts that need to be carefully managed and monitored.

205. Based on the activities of the project, its nature, significance and likelihood of the potential direct and indirect environmental and social risk and impacts, that have been identified using FAO Project Environmental and Social Screening Checklist, the project was categorized as a Moderate Risk²⁰⁵, equivalent (equivalent to GCF Category B) project, where:

- In this regard, potential impacts of the project and its activities are not unprecedented in the project area; are limited to the project's footprint; are neither irreversible nor cumulative.
- The identified potential adverse environmental and social impacts requiring the need for environmental and social management plans. It is expected that the project activities, will trigger the following Environmental and Social Safeguard: ESS1, ESS2, ESS4, ESS5, ESS6, ESS7 and ESS8. To comply with these policies, given that not all the sub-activities can be identified during appraisal, specific safeguard instruments were identified in Table 16.

206. According to FAO E&S safeguards, this ESMF adhered to, and its sections shall be used as guidance for the preparation of Environmental and Social Management Plans (ESMPs). Final consultations with

²⁰⁵FAO, Food and Agriculture Organization of the United Nations. 2022. [Environmental and Social Management Guidelines](#). Rome, Italy.

regards to the validation of the ESMF are still pending. The ESMF – including the Grievance Redress Mechanism (GRM) and the Gender Action Plan (GAP) - will be shared with and explained to stakeholders, for their feedback and validation. This will take place as part of the stakeholder engagement process, throughout project implementation.

207. **ESS 1. Biodiversity conservation, and sustainable management of natural resources:** The activities promoted by the project are expected to generate substantial positive environmental benefits from the scaling up of climate-resilient land use practices, increasing not only resilience of ecosystems and local communities to climate change, but will also reduce land degradation, maintain/enhance biodiversity, and ecosystem functionality through an ecosystem-based approach. Considering that some agricultural and forestry activities could take place near or in the buffer zones of critical habitat or natural protected areas, there are restrictions regarding the type of activities that can be financed/promoted by the project to avoid any potential significant adverse impact on biodiversity or habitats (refer to Appendix 1 Exclusion List). To minimize the introduction of non-native species or potential invasive specie the project will integrate several approaches: i) adhere to the national phytosanitary and environmental regulations to protect farmers against losses associated with the pests and weeds and implements international standards; ii) work closely with Ministry of Agriculture, Livestock, Fisheries and Cooperatives and its relevant divisions (e.g., Plant Protection Service Division) to minimize the introduction of non-native species or potential invasive species; iii) through Farm Field Schools, capacity building activities (e.g training courses and workshops) will include: a) creating awareness on the threats pose by non-native or invasive alien species (IAS), b) identification of main IAS; c) encourage environmentally friendly technologies for pest management (e.g. integrated pest management - IPM), and sanitary and phytosanitary measures.

208. **ESS2 - Resource efficiency and pollution prevention and management:** Practices and technologies promoted by the project aims at improving efficiency in the use of natural resources (water, land, soil, energy) through inclusive and participatory approach of women, man, youth, elders, PLWD and Indigenous Peoples. Project incorporates **integrated water management** approach, including water conservation measures, restoration of water catchment areas and watershed management; conservation and restoration of riparian zones; development of several small-scale irrigation schemes rather than one large system; promoting water-saving irrigation technologies (drip irrigation, water-saving equipment, etc.); rehabilitation of existing irrigation schemes; promoting the rational use of industrial water (reuse, cascade use, water-saving processes and equipment); promote water and rainwater harvesting technologies/structure; and raising public awareness on efficient water use. In terms of energy, the Project promotes the use of solar energy and energy-efficient machinery and equipment (e.g., tractors, ventilation systems, drying and storage systems, cooling devices). Considering that the project will promote watershed management practices, restoration of water catchments and watershed management, together with the installation/use of efficient irrigation systems (improve water efficiency); it is not expected that the project will cause a fall of the water table; due to the practices promoted, potential increase in groundwater recharge and improve conditions for land use is expected. Project also supports **sustainable soil management practices**, conservation agriculture, integrated production systems (permaculture, agroecology, agro-sylvo-pastoralism) and follow FAO Voluntary Guidelines for Sustainable Soil Management²⁰⁶. Through the FFS approach, the project will allow farmers to experiment with and uptake climate-resilient practices, technologies, and farming systems, including sustainable soil management practices. Farmers will receive training through FFS for 2 seasons (2 years) followed by monthly visits from the FFS facilitators throughout the project to ensure that knowledge the farmers

²⁰⁶ <https://www.fao.org/3/i6874en/i6874EN.pdf>

learned during the FFS is reinforced, and that practices and technologies the farmers adopt are suitable to address climate variability and climate risks as well as the other community specific conditions, such as availability of inputs. The Project will also implement best management practices for fertilizer following the International Code of Conduct on Sustainable Use and Management of Fertilizers²⁰⁷ the implementation of agroforestry practices will minimize the need to use fertilizers/soil conditioners, but they do not eliminate it. The quantities of chemical fertilizers used are expected to be very modest. Project shall ensure that sufficient awareness and capacity building activities are carried out to incorporate gender perspective within pesticide management. Projects will avoid direct discharge of wastewater and surface runoff originating from production units or processing areas into freshwater courses and marine coastal areas. Project activities under Output 3 and 4 will adopt measures to monitor the quality of groundwater or surface water near the agriculture sites to ensure that actions do not pose a risk to the environment and neighboring populations (referring to nutrient and other contaminants (veterinary products, medicines, agrochemicals). As part of the ESMP, waste management plans will also be developed considering the main waste generated within each of the value chains supported by the project.

209. Project also promotes **Integrates Pest management (IPM)** to reduce reliance on pesticides, and good agricultural practices to avoid the adverse impacts of pesticide use on the health and safety of farming communities, consumers, and the environment in accordance with the FAO/WHO International Code of Conduct on Pesticide Management. Project shall ensure that sufficient awareness and capacity building activities are carried out to incorporate gender perspective within pesticide management. There will be no pesticide procurement under the project, and highly hazardous pesticides (HHP) will not be used in the project areas. However, during implementation of the Project, agricultural intensification activities, through the promotion of climate-resilient agroforestry (particularly) and forestry production systems could indirectly contribute towards an increase in the use of certain pesticides, therefore the standard is triggered. The project will promote integrated pest management (IPM) to reduce reliance on pesticides or substitute chemical control for biological and physical control (e.g., promote bio-pesticides); additionally good agricultural practices will be adopted to avoid the adverse impacts of pesticide use on the health and safety of farming communities, consumers and the environment in accordance with the FAO/WHO International Code of Conduct on Pesticide Management. Additionally training and awareness raising activities will take place regularly to effectively adopt IPM, and considering that not all farmers might adopt IPM, appropriate training for personnel to store, handle, apply and dispose of pesticides and create aware awareness on correct use of personal protection equipment will also take place. In instances where pesticide use is unavoidable, after analyzing the options for IPM, the choice of pesticides must be closely studied. The factors to be considered when selecting pesticides are: i) their selectivity; ii) the risks to nontarget species; iii) their persistence in the environment; iv) their efficacy; and v) the probability of resistance development. Considering high use of pesticides in Kenya (particularly on the project area), a Pest Management Plan will be developed and adopted, following FAO guidelines. The following criteria must be met before a pesticide is approved for use in an FAO project: i) the pesticide must be registered in the country, or it must be specifically permitted by the competent authority. All conditions specified for registered products must be followed; ii) users must be capable of managing the product within acceptable risk margins; iii) preference is given to less dangerous, more selective, less persistent pesticides with less dangerous methods of application that are the best targeted and that require the least pesticide; iv) any procurement of pesticides on the international market must meet the conditions specified by the site <http://www.pic.int/Implementation/Pesticides>.

²⁰⁷ <https://www.fao.org/3/ca5253en/ca5253en.pdf>

210. **ESS3 Climate Change and Disaster Risk Reduction:** The project aims at increasing the resilience of farmers and their communities under current and future climate risks. Specifically, the project will: i) improve the adaptive capacity of smallholder farmers through increased access to climate resilient and low carbon technologies, market, finance, and social safety nets and risk sharing mechanisms by participating in organized farmer groups/cooperatives; ii) reduced exposure to climate hazards through improve access to water and watershed management, maintenance of soil cover, increased access to climate information services including early warning; iii) improved levels of food and nutrition security through increased production of key crops and commodities that can either be directly consumed or sold. The project will support training in the assessment of climate risks and the identification of climate solutions for the 6 value chains, ensuring that climate risks are identified locally. Activities to be carried out under Component 1 include an assessment and mapping of agricultural landscape degradation in each county; and developing (at county scale) a participatory climate risk assessment (CRA) to allow for non-expert users to obtain baseline information on climate hazards and environmental, social, and economic impacts to support evidence-based decision making on the prioritization of investments in climate-resilient interventions. Results of these assessment will further be integrated climate resilient, low-carbon landscape management strategies (Component 2).

211. **ESS4 - Decent work:** The Project identified risk related to labor and working conditions. Such risks could include the risk of employing child labor in project activities, discrimination in hiring and selection processes and abusive working conditions, and a high degree of informality and vulnerability (e.g., lack of social protection). Project will work mostly with smallholders and family farmers characterized by family-focused motives such as favoring the stability of the farm household system, using mainly family labour for production and using part of the produce for family consumption. Additionally, due to the country context, youth and children often assist with the farming work of their respective families, and there is a risk that these youngsters might work beyond what is age-appropriate (unless closely monitored). Additionally, decent work standards and enforce occupational, health and safety guidelines will be promoted. Adequate and verifiable mechanisms for age verification in recruitment procedures will be set to ensure children under the age of 18 should not be engaged in work-related activities that are likely to be hazardous or interfere with their compulsory child's education or be harmful to the child's health, safety or morals. When it comes to child labour issues, it is important to have a clear understanding of what constitutes child labour as opposed to indigenous traditions of engaging children in certain tasks, this will be taken into consideration in indigenous communities. Major occupational safety and health hazards in agriculture include dangerous machinery and tools, hazardous chemicals, toxic or allergenic agents, carcinogenic substances or agents, parasitic diseases, transmissible animal diseases, infectious diseases, hazards related to confined spaces, ergonomic hazards, extreme temperatures, and contact with dangerous and poisonous animals and insects. Small scale farmers and farm workers are particularly vulnerable when it comes to pesticide use, and most of the time these farmers cannot afford proper application gear or protective equipment (backpack sprayers, masks, protective clothing, and gloves). An FAO report on Gender issues in pesticide management (FAO , 2022) highlights that exposure to pesticides can occur during a wide range of tasks, during preparation (when preparing and mixing pesticides, loading spraying equipment), during use (when thinning, weeding and picking of sprayed crops), after application (entering recent spray field, cleaning pesticide contains). Same source cites that women's exposure to pesticides is significantly higher than recognized, and cases of poisoning of women are often under-reported and underdiagnosed; and that women are more vulnerable to the effects of this exposure for physiological reasons²⁰⁸. Project shall ensure that awareness raising, and capacity building activities are

²⁰⁸ Women have a higher percentage of adipose tissue and therefore tend to bioaccumulate lipophilic chemicals, such as persistent organic pollutants, in their fatty tissues.

gender-sensitive; and that all workers and contractors are aware of potential health, safety and occupation risks and hazards related to the activities they will perform (agriculture production, processing, construction, etc.). As part of the development of ESMF, the project will ensure full consideration of risks related to child labor in the target VCs and mitigation measures. The projects FFS curriculum and programs, manuals, and procedures shall include specific considerations for the elimination and prevention of child labor in the value chains supported by the project, by: raising awareness to address child labor in family-based agriculture, age-appropriate tasks, working hours for permissible for light work as defined in the Employment Act, hazards associated with the working tasks (whether the child's work is considered child labor or not), improved occupational safety and health (OSH) conditions for children above working age, among others. Personal protective equipment should be provided, along with first-aid training and on-site first-aid equipment shall be also available specially for works that are related to higher risk (e.g., workers on poultry/meat processing plants). Agro-processing facilities (constructed/rehabilitated) shall ensure that worker are provided with access to safe and healthy facilities, including access to canteens, hygiene facilities, and rest areas appropriate to the circumstances of their work. Project-level grievance mechanism will be established for all workers (and, where relevant, their organizations and contracted workers) to raise concerns of violations of existing rights and entitlements as provided for in legislation, collective agreements, employment contracts and human resources policies. The project Executing Entities and implementing partners will also participate in on-going training for the effective implementation of FAO decent work guidelines and standards and ensure to comply with national employment and labor laws as well as with other international commitments regarding labor, equal opportunity and fair treatment. Workers will be employed - in line with national legislation and/or UN/FAO regulation, whichever is most stringent. All workers and farmers will receive appropriate training to ensure they are aware of potential health, safety and occupation risks and hazards related to the activities they will perform (agriculture production, processing, construction, etc.), ensuring also that personal protective equipment is provided, training will be along with on-site first-aid equipment and training should also be provided.

212. ESS5. Community health, safety, and security: Community health and safety risks are likely to result from exposure to agrochemicals, water and vector borne diseases, zoonotic diseases, COVID 19, and pollution resulting from some project interventions. Risk also includes the marginalization of women, youth and PLWD. Mitigation measures include: integrated pesticides management plans, awareness creation and sensitization on social distancing for potential diseases, adoption of good industry practices, and waste management plans. The project will establish a strong quota and target with explicit budget lines for women youth and vulnerable groups in selected value chains for each training, grant and investment opportunity; additionally, the project will adopt a participatory and demand driven approach to assess community needs and develop support packages tailored to attend their needs, challenges and priorities. Conduct education and awareness raising with the local end-users regarding sanitation and health issues related to Water-borne and/or water related diseases, as well as intermittent water quality monitoring of the main water reservoirs. Besides empowering communities and increasing engagement and awareness of endemic zoonotic, vector borne disease prevention, the project will also integrate vector control activities that includes: the use farmer field schools to promote integrated pest management and integrated vector management (e.g. increased larval source management by deployment of microbial larvicides); adequate shoreline management around small dams and reservoirs by zoning and adequate coverage, such as vegetation or pebbles; where feasible, use of covered tanks or storage in groundwater rather than open water storage; capacitate communities to enhance participatory vector surveillance and monitoring, among others. The dams proposed for inclusion in the project are small earth dams, water ponds, pans of no more than 6-8m in width. The current design used in the area, which is not resilient, is shallow ponds ranging from 3-5m wide. The project would increase the total side

to 50-75m³ and raise embankments using designs developed by Kenya's rainwater Harvesting Association. The project activities will follow recommendations established by industry-specific best management practices (e.g. [Environmental, Health & Safety Guidelines](#), for management of risks related to community health and safety. Additional mitigation measures related to small water reservoirs are included in Appendix 9 of this ESMF "Example of additional mitigation actions of main production systems". Related to Component 3 and 4. The project will establish a grievance mechanism at field level to file complaints during project implementation phase. Contact information and steps or process to file a complaint will be disclosed in all meetings, workshops, and other related events throughout the life of the project. In addition, it is expected that all awareness raising material to be distributed will include the necessary information regarding the contacts and the process for filing grievances. The project will also be responsible for documenting and reporting as part of the safeguards performance monitoring on any grievances received and how they were addressed.

213. ESS 6 Gender equality and prevention of gender-based violence: Women assume important roles throughout agri-foods value chains to ensure food security and nutrition at community and household levels. The Gender Assessment carried highlights main gender highlights the challenges and barriers women confront, which includes lack of access to climate information, income, land, access to financial resources²⁰⁹ and extension services, thus resulting in lower adaptive capacity and are expected to face greater vulnerability as climate change impacts. In LVB/LREB communities are patriarchal, most women and youth do not own the land or other farm assets and do not have decision-making power over cash crops, food security crops or livestock activities that become commercialized. Furthermore, women's work is often invisible in agriculture, and they frequently receive no payment for agricultural labor and are often not considered farmers by agricultural extension staff. Even when work remunerates, women will often work longer hours and earn less money than men (work shorter hours). In the LREB region, gender differences in crop adaptation strategies are closely linked to husbands' and wives' roles and responsibilities, social norms, risk perceptions, and access to resources. Women in rural areas of Kenya are burdened with household tasks such as pounding grain, collecting firewood, fetching water, tilling land, planting, weeding, and harvesting, looking after livestock, caring for children, and cooking for the family. Additionally, women generally have more limited land rights (access, use) than men. For example, land in Kenya is mainly controlled by male household heads; women hold only about 1% of registered land titles. Thus, women in the LVB/LREB region cannot use land for collateral, affecting their ability to access investment and loans to strengthen or expand their farming activities. Results from the Gender Assessment indicate that the selected value chains (coffee, tea, fruit trees, indigenous leafy vegetables, poultry, and dairy) have distinct gender dynamics, with women and men having different roles and responsibilities across the value chain. GBV is a critical issue in Kenya, across its many forms which includes include sexual and physical violence; the denial of resources, opportunities or services; harmful practices (e.g., forced and child marriage); sexual exploitation and abuse. The Project incorporates a Gender Analysis and Action Plan, with specific gender-targeted activities built into the project design and integrate gender as a cross-cutting element throughout project implementation. The project will ensure that the benefits and opportunities derived from the project are equally distributed, increased gender equality and social inclusion in access to/control over agricultural inputs, agricultural finance, and agro-climate information and services and agricultural extension. Mitigation measures: The Gender Action Plan details how the goal of intersectional equity will be mainstreamed in two ways: participation in activities and the content of activities. Women, female youth, female-headed households, and females living with disabilities all have specific quotas that are required for each activity. In addition, the project will seek to partner (if possible) with organizations working locally in gender equality. All Executing Entities and other

²⁰⁹ Women mainly source finance for agricultural operations from non-prudential sources and informal sources such as family and friends.

implementing partners will adhere to FAO's principle of zero-tolerance for sexual exploitation, sexual abuse, and sexual harassment; sensitization training and awareness raising campaigns will be carried out at different levels (within PMUs, Committees, at county offices, farmers organizations, etc.) to prevent and respond effectively to these incidents. Studies and assessments that are to be taken within Component 1 will incorporate the collection of sex-disaggregated data and information on gender. Project Grievance Mechanism will include specific consideration to process, handle and respond to GBV complaints, and that incorporates survivor-center approach (all who are engaged in violence against women programming prioritize the rights, needs, and wishes of the survivor).

214. **ESS7. Land tenure, displacement, and resettlement:** The project activities will not lead to involuntary resettlement or displacement of people or communities; resources from the project will be used for land acquisition or resources (refer to Exclusion List). Proposed activities will mostly imply the involvement of communities on a purely voluntary and demand-driven basis. The country reports historic difficulties related to land access and tenure security rights that could compromise the large-scale adoption of CRLSA practices and increase competition over natural resources among marginalized communities. Existing land uses and land ownership are considered as factors that might influence the adoption/selection of specific production technologies and practices, for example private landowners are more likely to conserve land as they are assured of retaining the long-term gains from investments in conservation. Security of tenure might limit women, youth and PLWD into participating in the project activities; and can influence socio-economic activities such as a change in the range of income generating activities, lifestyles, etc. The project through Component 2 could cause restrictions on land use and access to natural resources that cause a community or groups within a community to lose access to resource usage where they have traditional or customary tenure, or recognizable usage rights. Through the project ongoing engagement process, FPIC and IPP, mitigation measures will be taken into consideration to avoid infringing on or extinguishing tenure rights of individuals or groups, including legitimate tenure rights that may not be currently protected by law. Activities carried under component 2 (specifically drafting and approving the county's Landscape Management Strategies - LMS), will require the inclusive and participatory community-decision making process that reflects voluntary, informed consensus regarding any potential change in the restrictions or access to land and natural resources. Community consensus will be reached through FPIC process which will engage and consult with communities in the target areas including communities/groups which may not be directly involved. Further agreement will be secured through cooperatives themselves, to ensure that participants who are already part of cooperatives are informing other cooperative members of the project (Refer to Annex 2, FS, section 6.1.3). Additionally, FAO and project executing entities and partners will follow the guiding principles and good practices of responsible tenure governance as articulated in the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT). Special considerations will be taken to ensure that indigenous groups (including women) rights and concerns are addressed and that they are also involved in decision-making processes.

215. **ESS8. Indigenous Peoples.** Kenya is home to a number of groups who self-identify as Indigenous Peoples. In the country, the people who identify with the Indigenous movement are mainly nomadic herders and hunter-gatherers, as well as some fishing villages and small farming communities; and are widely dependent on the natural resources, traditional lands and territories of Indigenous Peoples form a key part in their identity. The nature of the challenges faced by Indigenous communities are common and include: land and resource tenure insecurity, political under representation; poor service delivery; water scarcity and food insecurity limited access to employment opportunities; discrimination; high illiteracy levels; high poverty; poor infrastructure, poor sanitation and understaffing of social amenities; harmful cultural practices such as early marriages, female genital mutilation, gender bias in economic

empowerment. The main Indigenous Peoples in the project area of influence include: Ogiek, Sengwer, Talai, Maasai, Pokot, Turkana, Somali, Saboat. Based on the screening assessment, it is concluded that IPs are present in or have collective attachment to the project area. Therefore, a Free Prior and Informed Consent (FPIC) process will be implemented following FAO guidelines, to ensure an effective and inclusive participation approach of potential affected indigenous communities, as well as to ensure that existing tenure rights (formal and informal), as well as traditional and/or customary rights of the communities are taken into consideration, and that any involuntary restrictions on land use and access to natural resources is duly handled and/or compensated. The implementation of FPIC must be continuous during all stages of the project, allowing permanent feedback and adjustment of the support actions; incorporating a gender and intergenerational approach to promote the participation of women and youth in the dialogue and decision-making processes. FPIC is a human rights principle and standard that embodies the right of Indigenous Peoples to their lands and to participate in decision-making processes that could affect their livelihood, rights and traditional way of life. Following the results of the FPIC, an Indigenous Peoples Plan (IPP) will be drafted in consent with the involved Indigenous Peoples. All project activities should be consistent with Indigenous Peoples tenure rights (formal and informal) and take into consideration the traditional and/or customary rights of these communities, ensuring IPs preserve their rights to access their land and resources (lands, forests, tenure systems, government established compensation frameworks, etc). As a basic principle, all engagement with Indigenous Peoples will be culturally sensitive, seeking to empower indigenous communities and protecting and valorizing their ancestral knowledge and rights.

216. **ESS9. Cultural heritage:** The project will preserve and protect the cultural heritage (tangible and intangible), avoiding and reducing the adverse impacts that the Project could cause on the cultural heritage. The project does not aim at using intangible forms of culture such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles for commercial purposes. Activities to be carried out in Indigenous Peoples' territories are to be adequately consulted with them through FPIC. Referring to exclusion list (Appendix 1), the project recognizes that these are excluded areas and can be used only for the purposes for which they were established. Activities under Output 2, related to planning process (Landscape Management Strategies of the counties) shall map or delimit these areas. Additionally, Chance Find Procedures have been included in this ESMF (Appendix 8), the procedures must be included in all third-party contracts (e.g. Letters of Agreement), in instances where the contracted party is assisting with implementation of Output 3 or Output 4. Any involuntary restrictions on land use and access to natural resources subject to traditional ownership or under customary use (under Output 2) will be addressed by ensuring IPs rights are respected and that they are involved in the development of the project strategies. The project consultation process and project-level GRM will facilitate to integrate within the project, the needs and priorities expressed by the involved indigenous communities in manners that are culturally appropriate

7.2 Overview of environmental and social impacts

217. Overall, the cumulative project impacts are expected to be positive, enhancing the resilience of smallholder farmers to the impacts of climate change; reorienting key value chains towards climate-resilient and low-carbon pathways and promoting farmer-led adaptation and mitigation actions that are inclusive and gender-responsive. The project will foster the emergence of climate-resilient, low-carbon, environmentally sustainable, and financially viable agriculture value chains by accelerating the transfer of technology, knowledge, assets, and services with a focus on agri-food cooperatives as key agents to leverage rural change.

218. **Positive impacts:** The project is expected to improved resilience of the agricultural landscapes through appropriate planning strategies that are gender and socially responsive (consider needs of marginalized groups and minorities) and that integrate climate risk assessment and updated climate and agricultural information/database. Through climate-oriented farmer field schools (FFS) and improved, gender and social-responsive extension services, smallholders (men and women) will enhance their knowledge and improve access to inputs (e.g. technology and financial and non-financial services) that will enable them to adopt practices to improve their adaptive and coping capacity to climate change adverse impacts, decrease environmental degradation, improve forest cover, strengthen farmers organizational capacities, increase carbon sequestration and improve farmers livelihoods. Other positive impacts include improve access to climate information services (CIS); protect and conserve biodiversity and the ecosystem services, increased capacity of extension workers to provide better and more inclusive services to all (women, youth, PLWD), improve access to information to support farmers in making informed decisions and to adopt most suitable CRLSA practices. The project adaptation measures, such as the construction and/or rehabilitation of water conservation systems and promotion of irrigation efficiency infrastructure (water conservation and efficient irrigation systems) will support agriculture and farming activities, with potential yield increase and improve farmers livelihood. Furthermore, potential reduction on GHG emissions is expected through the promotion of renewable energy sources at various stages of the value chains. The project also engages women through a Gender Action Plan that ensures proactive mainstreaming of women into all activities, empowering women with agricultural skills and knowledge, and include on-going training to combat SEAH and GBV.

219. It is well documented that the practices promoted by the project have positive effect in promoting climate change adaptation and mitigation, supporting stallholder farmers in improving their resilience through increase of productivity, yield, and income (World Bank and CIAT, 2015). For additional information regarding benefits and impact of potential promoted technologies refer to FP-Annex 2 (Feasibility Study). Some of the benefit resulting from adoption of CRLCSA include:

- Adaptation: maximize soil nutrients, improve soil fertility and quality; reduces pest and disease risks; increases efficiency in water (reduce water use); increased feed quality and quantity for livestock; contributes to reductions of on-farm organic waste and odors; facilitates the elimination of pathogens; improves quality and quantity of the feeds, others.
- Mitigation: maintains and/or improves soil carbon stocks and soil organic matter content; reduces the need for nitrogen fertilizers application (use leguminous crops); reduce nitrogen lost; contributes to increases of soil organic matter, maintaining soil carbon stock; reduces methane emissions; provides an alternative on-farm energy source, others.
- Productivity: Improves yields and income; contributes to product diversification; improves product quality.

220. **Potential Negative Impacts:** Covers potential minor, mitigatable, and forecast only for the implementation/operation stages. From the social perspective, the project could exclude landless farmers and tenants; ethnic minorities/vulnerable groups; increase land tenure conflict; increased value of land due to heightened agricultural productivity and issues related to restrictions on land use and access to natural resources; increase GBVH within key VC. Due to country context, youth and children often assist with the farming work of their respective families, and there is a risk that these youngsters might work beyond what is age-appropriate (unless closely monitored). From the environmental perspective, increased agricultural production may result in the generation of new/additional environmental wastes; eutrophication issues or solid contamination due to inadequate or increase use of fertilizers that do not fully breakdown/decompose, as well as involuntary increase in the use of pesticides, even when the project is promoting more sustainable management of pest through IPM, agroecology and organic agriculture.

Provision of seed, plantings and other plant or animal genetic resource might pose certain risks, even when the recommended species/inputs/breeds used will be those already adapted to the region and/or registered/certified in the country (no introduction of new species or exotic species will take place, refer to exclusion list). Additionally, health, safety and occupational risk might derive from minor construction/rehabilitation activities of agro-processing facilities, and from agriculture work, which includes noise and air pollution, handling of waste and wastewater from the facilities, as well as exposure to physical and chemical hazards during operation of certain facilities (within value chain). Most of this risk are derived from the implementation of the activities under Output 3 and 4 and are considered as low-to-moderate risk, localized, temporary, and mitigatable through mitigation plans and adoption of international standards and good practices.

221. The following tables provide a summary of the main risks related to the environment (Table 10), to occupational, health and safety (Table 11) as well as community health and safety risks (Table 12) associated the six value chains: annual & perennials (coffee, tea, leafy greens, fruit trees), poultry and livestock (mammals) and food and beverage (includes dairy processing, meat processing).

Table 8 Summary main environmental Risks related to the six value chains

Environmental Risks	Annual & perennial (coffee, tea, leafy greens, fruit trees)	Poultry & Livestock (mammals)	Meat, dairy, food & beverage processing
Physical and chemical degradation of soil erosion, compaction & sedimentation from unsustainable management techniques; overgrazing, excavation and construction work.	x	x	x
Non-crop wastes or hazardous wastes from the production systems (e.g., pesticide containers, waste pesticides, and packaging)	x	x	
Water pollution from agrochemicals (cause nutrient leeching and eutrophication of water bodies), and from effluents of food processing facilities	x		x
Direct and indirect impact on biodiversity and ecosystems : habitat conversion or degradation, increase water usage, introduction of invasive species, inappropriate cultivation techniques. Indirect impacts relate to immigration, and induced changes to access for traditional land uses (including hunting, fishing, and recreation)	x	x	
Loss of stored carbon in the land occurs primarily during harvest and farm establishment	x		
Increase GHG emissions , including methane, nitrous oxide, and carbon dioxide from different stages in the production cycle	x	x	
Increase use/consumption of water and energy for irrigation purposes, food processing, cleaning, etc.	x	x	x
Wastewater : Poultry operations may generate effluents from various sources including runoff from poultry housing, feeding, and watering; from waste storage and management facilities.		x	x
Air emissions : dust, from poultry production include primarily ammonia (e.g. management of animal waste), odors (e.g. animal housing and waste management), and dust (e.g. feed storage, loading and unloading, and waste management activities).	x	x	x

Hazardous materials: are used throughout the poultry production cycle (e.g. disinfecting agents, antibiotic and hormonal products). These materials include pesticides (applied to birds, barns, or housing units), can contaminate water and cause chronic or acute health hazards for humans.		X	
Exposure to biological agents & animal diseases: Exposure to a range of pathogens such as bacteria, fungi, mites and viruses (including “bird flu”) transmitted from live birds, excreta, carcasses and parasites and ticks. If antibiotics are used in feed antibiotic resistant micro-organisms might develop.		X	X

Source: Authors' own elaboration.

Table 9 Summary main Occupational, Health & Safety Risks related to the six value chains

Occupational Health and Safety risks	Annual & perennial (coffee, tea, leafy greens, fruit trees)	Livestock (mammals)	Meat, dairy, food & beverage processing
Sexual violence and harassment: physical and psychological violence; sexual harassment and violence; sexual exploitation and abuse.	X	X	X
Physical hazards: Exposure to physical hazards related operation and repair of machinery, trip and falls, and lifting heavy weights; over-exposure to noise, vibration, and extreme or adverse weather conditions	X	X	X
Chemical hazard: Potential exposure to pesticides, disinfecting agents, minerals, antibiotic and hormonal products.	X	X	X
Confined and restricted space entry (e.g., processing bins and silos, water tanks, inadequately ventilated buildings, areas treated with pesticides, manure pits, etc.) include risk of asphyxiation; explosions due to gas, dust, or fumes; entrapment etc.	X	X	X
Accidents use of machinery & vehicles: from transportation of workers, farm tractors, harvesting and felling machinery; injury during inspection or repair of vehicles (e.g., vehicle lift not secured while personnel working underneath); entrapment due to unplanned starting, activation, or engagement of equipment (e.g., rollers).	X	X	X
Risk of fire and explosion: risks include fires resulting from the combustion of stored oil or crop residues, which can lead to a loss of property or cause possible injury to or fatality of project workers.	X		
Biological hazards: contact with venomous animals, such as stinging insects, spiders, scorpions, snakes, disease vectors (e.g., mosquitoes, ticks), and with certain wild mammals (e.g., tigers, wild pigs).	X		
Chemical hazards: Exposure to hazardous products including pesticides and herbicides, including dermal contact (during storage, preparation, mixing, application), inhalation (during preparation, mixing, and application and in storage rooms); ingestion (swallowing the pesticide or contaminated foodstuffs). Hazardous materials are used throughout the beef, milk, and pork production cycles (e.g. disinfecting agents, antibiotic and hormonal products).	X	X	X

Biological agents: Workers may be exposed to disease-agents such as bacteria, fungi, mites, and viruses transmitted from live animals, manure, animal carcasses, and parasites and ticks (zoonoses); as well as skin sensitizers such as animal proteins from urine that can cause an allergic reaction.		x	x
Machine/tool safety: Equipment safety issues are mainly associated with the use of knives, mechanical saws, packaging equipment, and mincers			x

Source: Authors' own elaboration.

Table 10 Summary main Community Health & Safety Risks related to the six value chains

Community Health & safety risks	Annual & perennial (coffee, tea, leafy greens, fruit trees)	Livestock (mammals)	Meat, dairy, food & beverage processing
Increased vulnerability and community safety related risks due to land use change or the loss of natural buffer areas; exposure to pesticides and its by-products,	x		
Potential exposure to pesticides (e.g., spray drift, improper disposal and use of packaging and containers) and presence of pesticides or by-products in potentially harmful concentrations in foods tuffs and postharvest products.	x		
Increased risk of vehicle or machinery injuries on roads and access routes around the community	x		
Potential exposure to pathogens, microbial contaminants and noxious odors associated with the use of manure, waste handling and wastewater effluents	x	x	x
Food and safety impacts development of antibiotic resistance by pathogenic bacteria		x	x
Concerning risks from the ingestion of hazardous substances in beef, milk, and pork, the FAO/WHO Codex Alimentarius provides guidance on veterinary drug residues and pesticide residues and contaminated or adulterated food products		x	x
General: Community health and safety impacts during the operation phase that are common to most industry sectors, including those related to traffic safety during transport of raw materials and finished product, noise, excavation, construction and rehabilitation of facilities (processing plants, slaughterhouses)	x	x	x

Source: Authors' own elaboration.

7.3 Breakdown of impact by components

222. A breakdown of the expected positive and potential negative impacts, by component, is provided in the following charts, based on component:

Component 1. Enabling local government support for adaptation and mitigation.

Component 1 Objective: help county governments serve farmers, farmer organizations and cooperatives to transform the agriculture sector from current pathways to climate resilient, low-carbon trajectories

EE	Description of activities	Impacts
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FAO	1.1.1 Develop and deploy innovative and efficient extension methods for disseminating and demonstrating CRLCSA knowledge, technologies, and practices in gender-responsive and socially inclusive ways	<p>NEGATIVE (-)</p> <p>This component focuses on knowledge sharing, awareness raising, capacity building and training and therefore NO adverse Environmental, Social and Gender impacts are expected to result from this component. However, special attention must be provided to integrate within the project marginalized groups rights, needs, barriers, and challenges:</p> <ul style="list-style-type: none"> • Without appropriate integration of gender and social inclusion issues, existing inequalities (e.g., gender) related to decision-making processes, labor burden, and access to resources (information, extension services, finance, inputs) could be exacerbated. Triggers <p>POSITIVE (+)</p> <ul style="list-style-type: none"> • Enhancement of county governments capacities to provide efficient and cost-effective solutions to support transition towards climate resilient, low-carbon value chains. • Increased access to much-needed information and data on real-time weather, climate information, agro-productivity, market information. • Support different stakeholder (private & public) in taking well informed decisions for sustainable planning and investing, incorporating climate, environmental and social risks. • Strengthen the dissemination of climate services and information to women, youth, and PLWD through cooperatives and farmer organizations. • Design & deliver inclusive extension methods/services that address main existing gender gaps and provide benefits for the integration of marginalized groups (indigenous peoples, youth, elderly, disable, etc.).
FAO	1.1.2 Strengthen the dissemination of climate information services to last-mile users including women, youth and PwD through cooperatives and Farmer Organizations.	
FAO	1.1.3 Develop and test methodologies for decentralized carbon accounting	
FAO	1.1.4 Upgrade and update agricultural databases, crop and productivity datasets, cooperative census	
FAO	1.1.5 Assess local climate change impacts and eligible climate solutions for the ag sector	
FAO	1.1.6 Share knowledge and lessons learned through existing platforms	

Component 2 Sustainable Resilient Agricultural Landscapes

Component 2 Objective: supports direct emission reductions and the restoration and protection of ecosystems and their provided services in the face of multiple threats, including climate variability and climate change impacts, population pressure and farmland expansion.

EE	Description of activities	Impacts
FAO	2.1.1 Develop a county climate-resilient and low-carbon agricultural landscape management strategy and implementation plan, including improved watershed management, land use planning, reforestation, and natural regeneration.	<p>NEGATIVE (-)</p> <ul style="list-style-type: none"> • Involuntary restrictions on land use and access to natural resources that cause a community or groups within a community to lose access to resource usage where they have traditional or customary tenure, or recognizable usage rights. • Risk that women, indigenous peoples (ethnic minorities) and other marginalized groups, whose views and perspectives add value to the project actions and enhance the sustainability of the plans, may not be fully engaged. • Increase land tenure conflicts and competition for natural resources among Indigenous Peoples, ethnic minorities and marginalized groups. <p>POSITIVE (+)</p> <ul style="list-style-type: none"> • Participatory and inclusive medium and long-term Land planning process that integrates climate, environmental and social variables (land degradation, land-use, land tenure, social vulnerabilities, etc.).
GoK	2.1.2 Implement and monitor climate-resilient and low-carbon landscape management plans.	

		<ul style="list-style-type: none"> • Mainstreaming gender, needs of PLWD and marginalized groups into planning/zoning process, actions plans and M&E process. • Enhancement of sustainable management of natural resources and their ecosystem services.
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Component 3 Resilient livelihoods.

Component 3 objective: to reduce GHG emissions from the AFOLU sector through the development, implementation, and successful monitoring of climate resilient and low-carbon management plans: delivers adaptation and mitigation benefits from the agri-food sector by disseminating and upscaling technologies, assets, knowledge, practices and services related to CRLCSA practice

EE	Description of activities	Impacts
FAO	3.1.1 Deploy CRLCSA production/processing assets and training to smallholder farmers, farmer organizations and associations.	NEGATIVE (-) <ul style="list-style-type: none"> • Occupational, health and safety risk related to the construction and operation of agro-facilities, involved: noise/dust pollution, waste and wastewater, accidents use of machinery and vehicles. • Exposure to health risk related to waterborne diseases, vector-borne diseases, zoonotic diseases, food-borne diseases from construction of small dams and agro-facilities. • Increased land productivity may cause issues with age-appropriate work and/or increased thievery of crops; as well as indirectly increase purchase and use of agrochemicals (pesticides, fertilizers, etc.). • Provision of seeds and other agricultural inputs that carries a risk of uncertified/unregistered seeds being used. • Sexual gender-based violence and harassment related risks in key value chains (e.g. sexual violence, harassment and exploitation)
AGT	3.1.2 Disseminate CRLCSA technology, knowledge and assets to cooperative members through peer-to-peer networks and exchanges.	
AGT	3.1.3 Support smallholder farmer aggregation into cooperatives and other business units as climate risk reduction and risk sharing mechanisms.	
	3.1.4 Support improvements in social inclusion and women's meaningful participation in CRLC value chains	
		POSITIVE (+) <ul style="list-style-type: none"> • Emissions reductions for crop VC and reductions in emissions intensity for livestock value chains. • Increased resilience of farmers to climate change, increase productivity and livelihood. • Adopt better agriculture and industrial practices and standards that responds to needs and opportunities of smallholders. • Integrates Gender Transformative Approach • Improved knowledge sharing between farmers and FOs. • Increase capacities of farmers and FO in designing climate & environmentally sustainable projects • Enhance meaningful participation of women, youth, PLWD and other Indigenous peoples, ethnic minorities in planning and decision-making process at county level and within FOs and cooperatives. • Ensure women, indigenous peoples, PLWD, and youth have access to production/processing assets and trainings that are gender and socially inclusive. • Support integration of small farmers into cooperatives or FOs as key mechanism to share and reduce risks. • Enhance capacities of FOs to take part in planning and programming processes.

Component 4 Scaling through CRLCSA market and finance.

Component 4 Objective: to increase access to finance as a means of upscaling business and CRLCSA practices, in a manner that is gender and socially inclusive to women, PLWD, and youth.

EE	Description of activities	Impacts
FAO	4.1.1 Work with buyers and aggregators to increase demand and market opportunities for CRLCSA commodities.	NEGATIVE (-) <ul style="list-style-type: none"> Exacerbate existing gaps for not involving or taking into consideration women, indigenous peoples, PLWD, and youth capacities, barriers, and opportunities. Prevalence of GBV within key VC (e.g. sexual violence, harassment and exploitation) POSITIVE (+) <ul style="list-style-type: none"> Increase women, PLWD, and youth capacities to access credit and financial services that responds to their needs and capacities, as well as access improved markets and trade opportunities. Increase stakeholders access to relevant information on markets and buyers potential demand for climate resilient, low-carbon products. Support farmers and FOs integration in low-carbon VCs. Build awareness at all-levels on diverse benefits (financial, environmental, social) and values of climate resilient, low-carbon products/commodities. Strengthening private finance lenders on targeting of women and socially marginalized groups. Foster farmers and FOs knowledge and capacities to adopt certification schemes (Fair Trade and Rain Forest Alliance) and Good Agricultural Practices. Improve E&S performance by adoption of good agricultural practices and certification schemes.
AGT	4.1.2 Increase access to various certification and labeling schemes such as FairTrade or GlobalGAP	
FAO	4.2.1 Develop gender-responsive and socially inclusive private finance tools, procedures and products to promote the upscale of CRLCSA value chains.	
AGT	4.2.2 Support smallholders and their business units in the development of bankable business plans, with particular focus on social inclusion and gender-based access	
FI	4.2.3 Deliver concessional private finance to support CRLCSA value chains and ensure gender-responsiveness and social inclusion.	
AGT	4.2.4 Facilitate smallholders access to financial incentives schemes for agroforestry.	

223. Project sub-activities will be subject to project screening process (using FAO Screening checklist – Appendix 6) to identify potential E&S risks and impacts. Depending on the classification and level of risk identified, Environmental and Social Management Plans (ESMPs) will then be prepared. Given that the project is considered medium risk overall, it is expected that only some of the project activities will require ESMPs following the screening phase. Additionally, all project activities will have to ensure compliance with Kenya’s environmental and social regulation regarding the obtaining of permits and licenses for construction/operations.

8 Mitigation measures & approach to enhance positive impacts

8.1 Project’s mitigation measures

224. The following table shows the summary outline of the standards.

Table 11 FAO environmental and social standards main considerations

Safeguard Policy	Triggered	Safeguard Instruments & Mitigation Measures
ESS 1. Biodiversity conservation, and sustainable management of natural resources	Yes	<ul style="list-style-type: none"> Non-eligible activities (Appendix 1 Exclusion List) ESMF/ESMP Biodiversity Management Planning Framework (Appendix 10 of the ESMF)

		<p>The project aims at sustainable intensification and adoption of CRLCSA practices. No land conversion will take place, this includes expansion of agriculture frontier, clearing of native forest or similar activities, or increasing areas under cultivation within protected areas. The project will work mainly with local/native breeds and species sourced from local or national markets where available. All genetic material for plants and animal (seedling/planting material, species, breeds) should be free from pests and diseases. Farm Field Schools curricula includes awareness raising and dissemination of good agricultural practices to prevent the spread and use of plants/animals that might be infected with pest and diseases, additionally project promotes Integrated Pest Management.</p>
ESS2. Resource efficiency and pollution prevention and management	Yes	<ul style="list-style-type: none"> • ESMF/ESMP <p>Practices and technologies promoted by the project aim at improving efficiency in the use of natural resources (water, land, soil, energy) through inclusive and participatory approach of women, man, youth, elders, PLWD and Indigenous Peoples. The project promotes the use of local or native breeds and species (for livestock, poultry and planting/seedling material), IPM to reduce use and dependency of agrochemicals (Refer to Appendix 3) and integrates sustainable soil and water management. The project will not introduce crops, varieties, breeds or species that are not previously grown/breed in the project area or the LREB. FFS curricula and programs promote good agricultural practices, which includes sustainable water and soil management practices, such as conservation agriculture, integrated production systems (permaculture, agroecology, agro-sylvo-pastoralism), others.</p>
ESS3. Climate change and disaster risk reduction	Yes	<p>The Project conducted a Climate Risk Assessment and the findings from this assessment have been fully considered in the project design.</p>
ESS4. Decent work	Yes	<ul style="list-style-type: none"> • ESMF/ESMP • Labour Management Plan (Appendix 12 of the ESMF) <p>The project will ensure compliance with national and international employment and labor regulations and guidelines. All employment relationships will be based on the principle of equal opportunity and fair treatment and will not discriminate. Training and sensitization campaigns will be carried for farmers/FOs on Occupational, Health, and Safety (OHS), child labour, and appropriate work for youth. The project supports knowledge generation, and will generate youth/women opportunities in selected value chains, and support rural youth/women/PLWD access to information and productive resources. The project will ensure that children under aged are not employed through adequate and verifiable mechanisms for age verification in recruitment procedures. Project will also conduct sensitization training on safe, decent rural employment and age-appropriate work, given that youth often assist with the farming work.</p>
ESS5. Community health, safety, and security	Yes	<ul style="list-style-type: none"> • ESMF/ESMP • Zero tolerance of SEAF/ GBV

		<ul style="list-style-type: none"> Labour Management Plan (Appendix 12 of the ESMF) <p>The project adopts a Zero tolerance of SEAH and GBV, all project stakeholders will participate on sensitization campaigns and training on SEAH & GBV (EEs, counties authorities, FFS, FOs). Additional risks for the community are related to exposure of waterborne diseases, vector-borne diseases, zoonotic diseases, food-borne diseases from construction of small dams and agro-facilities. The project activities will follow recommendation established by industry-specific best management practices (e.g. Environmental, Health & Safety Guidelines, for management of risks related to community health and safety). Design, construction, operation, and decommission of structural elements will follow national legal requirements and good international practice, ensure inclusive engagement to avoid increasing inequalities.</p>
ESS6. Gender equality and prevention of gender-based violence	Yes	<ul style="list-style-type: none"> ESMF/ESMP Gender Action Plan (Annex 9 of the FP) Zero tolerance of SEAH/ GBV <p>Project design and implementation incorporates gender equality and prevention of gender-based violence as an integrated element, a Gender Analysis and Action Plan, with specific gender-targeted activities and indicators was developed (FP Annex 8). The project will have zero tolerance for all forms of SEAH. The project's GRM will be accessible for all project-related complaints, including SEAH-specific complaints. The GRM will be survivor-centered and gender responsive, and will have specific procedures for SEAH, including confidential reporting and safe and ethical documenting (see Chapter 5). ESMF/ ESMP also includes measures to facilitate social inclusion and enhance gender equality, and safeguard against SEAH.</p>
ESS7. Land tenure, displacement, and resettlement	Yes	<ul style="list-style-type: none"> ESMF/ESIA Non-eligible activities (Appendix 1 Exclusion List) <p>The project activities will not lead to involuntary resettlement or displacement of people or communities; resources from the project will not be used for land acquisition. No set aside land or additional conservation areas (e.g., national park) will be established as part of the project. Reforestation/rehabilitation areas will take place mainly on public or community land (executed by county administrations) or interventions on private land (executed by communities with funding from counties) and will focus on areas where such interventions can facilitate or leverage improved productivity through ecosystem services. Proposed activities will mostly imply the involvement of communities on a purely voluntary and demand-driven basis. Project will employ Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests and incorporate land tenure assessment as part of the landscape/watershed strategies.</p>
ESS8. Indigenous Peoples	Yes	<ul style="list-style-type: none"> Indigenous Peoples Planning Framework (IPPF) in the ESMF and subsequent ESMP and Indigenous Peoples Plan (IPP) FPIC <p>The project activities will not lead to involuntary resettlement or displacement of people or communities; resources from the project</p>

		will not be used for land acquisition or resources. FPIC will be carried out before any project activity is implemented, and it will consider the active participation of Indigenous Peoples living in the project area, as well as those Indigenous Peoples (nomadic pastors and hunter gatherers that depend on the resources of the project area of influence. Some of the project activities could affect IPs and their livelihood (e.g., loss of access to grazing land, interference with pastoralist livelihood), if these groups are excluded from planning and decision-making processes (e.g. Indigenous groups are represented in project main Committees). Any involuntary restrictions on land use and access to natural resources is subject to traditional ownership or under customary use (under Component 2) and will be addressed by ensuring IPs rights are respected and that they are involved in the development, implementation, and monitoring of the project and in the decision- making processes.
ESS9. Cultural heritage:	Yes	<ul style="list-style-type: none"> • Non-eligible activities (Appendix 1 Exclusion List) • Chance Find Procedures (Appendix 4 of the ESMF) <p>The project will not invest in areas identified as cultural heritage sites. These include; shrines, village squares, etc. The project specific ESMP will ensure that the scoping and screening exercises caption these kinds of issues. Additionally, the Chance Find Procedures (Appendix 4 of the ESMF) will be included in all third-party contracts (e.g. Letters of Agreement) to make sure the project will not implement in cultural heritage sites.</p>

Source: Authors' own elaboration.

225. An exclusion (non-eligibility) list is provided in Appendix 1, which details on activities that will not be financed under the project.

226. This section discusses the impacts and mitigation measures of the project component. The following table is described the impacts and mitigation measure from the agricultural production activities. Additional mitigation recommendation for the main type of activities is included in Appendix 9.

Table 12 Summary main mitigations measures & Monitoring arrangements

POTENTIAL RISK	MITIGATION MEASURES & OPPORTUNITIES TO ENHANCE POSITIVE IMPACTS	MONITORING ARRANGEMENTS
Component 1: Enabling local government support for adaptation and mitigation.		
Potential risk of exacerbating existing gaps from marginalized or vulnerable groups/communities such as women, youth, ethnic minorities and PLWD (ESS6, ESS4, ESS5)	<ul style="list-style-type: none"> - On-going inclusive and participatory engagement and FPIC process throughout project life cycle. Ensure support to Indigenous Peoples to develop skills and experience in access and benefit sharing where it is appropriate. - Indigenous Peoples should be considered as target beneficiaries on capacity building activities or trainings; additionally, for baseline studies and surveys take into consideration the participation of indigenous peoples, their needs, barriers, opportunities. - Training and meetings with PLWDs are organized in close-by locations in the communities, in sensitive teaching and 	<ul style="list-style-type: none"> - Responsible: PMU and implementing partners, EE - Verification: E&S monitoring report, record of trainings - Frequency: Quarterly

POTENTIAL RISK	MITIGATION MEASURES & OPPORTUNITIES TO ENHANCE POSITIVE IMPACTS	MONITORING ARRANGEMENTS
	<p>learning environments. To cater to the special needs of the PLWDs with visual, hearing, physical and speech impairments train them in braille, sign, and audio languages).</p> <ul style="list-style-type: none"> - Ensure participation and empowerment of women, in some instances, gender-specific sessions could be carried, separating women and men to navigate cultural norm. - Invest in community-based grievance redress mechanisms. 	
Component 2: Sustainable Resilient Agricultural Landscapes		
Increase land right/tenure issues and involuntary restrictions on land use and access to natural resources (ESS1, ESS7, ESS8)	<ul style="list-style-type: none"> - Follow the guiding principles and good practices of responsible tenure governance (VGGT). - Conduct sensitization and training of communities on conservation of wildlife and protected areas. - The project activities will not take place in areas/land which may have land tenure issues and if land titles are not clear; nor in ancestral lands/domains, or areas considered as culturally important areas (sacred grounds, burial sites, cultural and heritage sites). - All activities that might affect (positively or negatively) Indigenous peoples customary rights will require FPIC consent from indigenous communities. FPIC with affected indigenous communities will be established through good faith negotiation, respecting traditional and customary protocols and dynamics and ensuring the participation of indigenous women, youth, elders and PLWD. - Ensure that land planning and/or zoning activities (e.g drafting of landscape and watershed management strategy) are consistent with indigenous traditional and customary rights. - Include representatives of the affected indigenous communities within Project Committees established either at local, regional or national scale (e.g. Project Steering Committee) to ensure their participation in decision making processes along project life-cycle. - Adopt a collaborative forest/landscape management, where indigenous communities are involved not only in the planning processes, but also participate in the monitoring and evaluation processes of different project activities. - With the consent of involved/affected Indigenous Peoples, integrate Indigenous Peoples traditional knowledge and practices as part of CRLCSA technologies. - Baseline studies and surveys shall take into consideration the participation of marginalized groups (indigenous peoples, women, youth, PLWD), their rights, needs, barriers, opportunities. 	<ul style="list-style-type: none"> - Responsible: PMU and County offices - Verification: E&S monitoring report, record of trainings - Frequency: Continuously,

POTENTIAL RISK	MITIGATION MEASURES & OPPORTUNITIES TO ENHANCE POSITIVE IMPACTS	MONITORING ARRANGEMENTS
	<ul style="list-style-type: none"> - Establish functional GRM at project-level that is accessible and culturally appropriate and has been socialized with Indigenous Peoples. 	
Component 3: Resilient Livelihoods.		
Component 4: Scaling through CRLCSA market and finance.		
<p>Risk of use uncertified/unregistered varieties and genetic material (plants & animals) and onset or spread of animal disease, Potential exposure to pathogens, microbial contaminants (ESS1, ESS4, ESS5)</p>	<ul style="list-style-type: none"> - Only use native species and/or locally developed varieties that are registered (see negative list in Appendix 1 for more details). When deemed necessary, screening by FAO's technical unit on plant protection (AGPM) will be conducted. - Establish and follow bio-safety protocols in entire operation chain and production facilities: control farm animals, equipment, personnel, and wild or domestic animals entering the facility (e.g., quarantine periods for new animals, washing and disinfecting crates, disinfection, and coverage of shoes, providing protective clothing to personnel, etc.). Develop a veterinary health plans/strategies (disease prevention, treatments, vaccinations protocols, etc.) - With the consent of involved/affected IPs, adopt and promote Indigenous Peoples skills, knowledge and practices and support intergenerational knowledge transmission 	<ul style="list-style-type: none"> - Responsible: PMU, implementing partners and County offices - Verification: Inspection, reports of abstraction, field visits - Frequency: Quarterly
<p>Indirect overuse of agrochemicals (herbicides/pesticides) and fertilizers; as well as handling of waste (ESS1, ESS2, ESS4, ESS5, ESS6)</p>	<ul style="list-style-type: none"> - Provision of training on Integrated Pest Management (IPM) and Good Agriculture Practices to farmers & FOs at demonstration sites. Appendix 3 provides guidelines for pest management. - Provision of extension and inclusive training on correct identification of pest, use and safe handling/disposal of agrochemicals; use of the information provided in Material Safety Data Sheet (MSDS) promote agroecology (organic agriculture, biopesticide, compost) and soil and water conservation, etc. - For the use of fertilizers, as management practices differ according to the site conditions and farm systems, fertilizers (nutrients) will be applied following the guiding principles of 4R Stewardship, - No pesticides will be procured under the project, and highly hazardous pesticides (HHP) will not be used (see Appendix 1 for the non-eligibility list, and Appendix 2 for the list of banned pesticides in Kenya). - Train stakeholders on alternative to reduce the generation of waste, and recover and reuse waste in a manner that is safe for human health and the environment. - Hazardous wastes should always be segregated from nonhazardous wastes. ESMP shall include visits/audits to ensure that waste (hazardous and non-hazardous) is handle, treat, and dispose in compliance with applicable 	<ul style="list-style-type: none"> - Responsible: PMU, EE and County offices (e.g. NEMA) - Verification: Inspection, reports of abstraction, field visits - Frequency: Quarterly

POTENTIAL RISK	MITIGATION MEASURES & OPPORTUNITIES TO ENHANCE POSITIVE IMPACTS	MONITORING ARRANGEMENTS
	<p>local and international guidelines, following GIIP (Good International Industry Practices).</p> <ul style="list-style-type: none"> - Community members (beneficiaries) should be trained in health and safety risks associated with the project and preventive measures. - Avoid the purchase and use of chemicals and hazardous materials subject to international bans or phase-out due to their high toxicity level. - Identify waste removal arrangements together with the County officials. These waste disposal mechanisms comply with existing waste management practice that is acceptable under Kenya's regulation and consistent with international practices on waste handling (e.g., World Bank Group EHS Guidelines) - Working closely with NEMA to ensure relevant standards are met on waste handling/disposal. 	
Increment of GBVH within key value chains (ESS6, ESS4)	<ul style="list-style-type: none"> - Communication of the project's zero tolerance policy for SEAH to all project staff (PMU, PSC), EE, contractors and implementing partners. - Carry awareness raising and capacity building activities on the prevention of GBVH among different stakeholders. - Disseminate project grievance mechanism (at all levels) including SEAH-specific gender-responsive and victim-centered SEAH procedures. - Document/log all SEAH cases including that status of cases (ongoing, completed, closed, etc.). - Train project personnel and sensitize community gatekeepers on SEAH to support and catalyse community-driven support measures against SEAH. - Follow emerging good practices and international guidelines on GBV, this includes: Addressing Gender-Based Violence and Harassment²¹⁰, Code of practice on safety and health in agriculture²¹¹, Toolkit to address GBV in agriculture and market systems development, companies and farmers organizations are encouraged to implement them. Representation of women and youth on decision making process, and in multi-stakeholder platforms/committees. - Include in FFS curricula activities and guidelines to raise awareness on GBV and incorporation of good practices to address GBVH in the projects' value chains. - Information dissemination and training among community and opinion leaders about issues of gender, power and GBV to improve their understanding of and responsiveness to the different needs of men, women, girls and boys; 	<ul style="list-style-type: none"> - Responsible: Responsible: PMU, EE, contractors, FOs - Verification: Field visits and E&S report. Keep records of # of reported cases on GBV; # of cases handled to conclusion, GBV/SEAH trainings, others - Frequency: Continuously, from Y1-Y6

²¹⁰

https://www.ifc.org/wps/wcm/connect/f1645167-7eff-439b-922b-7656c75320ab/GPN_AddressingGBVH_July2020.pdf?MOD=AJPERES&CVID=nddokiS

²¹¹https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_159457.pdf

POTENTIAL RISK	MITIGATION MEASURES & OPPORTUNITIES TO ENHANCE POSITIVE IMPACTS	MONITORING ARRANGEMENTS
	<ul style="list-style-type: none"> - Include SEAH provisions in agreements with EEs (e.g. contracts should ensure training and disciplinary actions in cases of SEAH and GBV) - Maintain relationships with international and/or local protection/GBV organizations for updated information on GBV issues and services, such as referral pathways. - Integration of SEAH and GBV mitigation measures in the Gender Action Plan. 	
Employment & labor conditions (ESS4 & ESS5, ESS7)	<ul style="list-style-type: none"> - Ensure compliance with Kenya's labour and occupational health and safety laws. - Ensure workers are trained in occupational health and safety and that appropriate PPE is provided. - Contractors required to keep logs of incidents and should be reported and investigated regularly. - ESMP shall provide guidance on appropriate contractual arrangements (e.g. fair contract farming principles) to promote safer ag-practices to reduce hazardous work, as well as labor-saving practices & technologies. - EE, contractors and FO shall keep records on: age of workers hired/contracted, type of activities assigned to workers, work related accidents, number of initiatives to raise awareness about child labor and protection of children's rights, among others. - Comply with the Employment Act (2019), Labor Relations Act, on gender equality in the workplace, - Provide capacity building, apprenticeship, entrepreneurship training, business skills and formal courses to integrate youth within the VCs. - All contracts shall have contractual provisions to comply with the minimum age requirements including penalties for noncompliance in-line with the relevant national laws. - All employment relationships established will be based on the principle of equal opportunity and fair treatment and will not discriminate with respect to any aspect of employment. ESMP shall provide guidance on appropriate contractual arrangements and set out the conditions in which project workers will be employed or engaged and managed in accordance with the national law and following applicable labour terms and conditions indicated the FAO Framework for ESMF (as applicable). 	<ul style="list-style-type: none"> - Responsible: PMU, Implementing Partners and Executing Entities - Verification: E&S monitoring report include information of Employment & labor conditions and frequent audits (random inspections, supervision missions and reports). - Frequency: Continuous from Y1-Y6
Age-inappropriate youth work (ESS 7)	<ul style="list-style-type: none"> - Raise awareness and develop capacity of main VC stakeholders. Conduct sensitization training (among PMU, EE, contractors, FO, cooperatives) on safe, decent rural employment and age-appropriate work, given that youth often assist with the farming work of their respective families. - Ensure that EE, contractors and FO comply with: Children's Act (2001), Sexual Offences Act (2006) and the Employment Act (2007); as well other international commitment (UN Convention on Rights of the Child, and 	<ul style="list-style-type: none"> - Responsible: PMU, counties relevant authorities and implementation partners - Verification: E&S monitoring report on Child labor and frequent audits (random inspections, supervision missions and reports). ESMP integrates FAO guidelines analysis on monitoring and evaluation of children labor in agriculture

POTENTIAL RISK	MITIGATION MEASURES & OPPORTUNITIES TO ENHANCE POSITIVE IMPACTS	MONITORING ARRANGEMENTS
	<p>ILO Convention of Minimum Age of Employment and the Worst Form of Child Labour.</p> <ul style="list-style-type: none"> - Integrate gender-responsive, labour-saving technology and practices. - Create decent work and safe income- generating activities for adolescents of legal working age, - Integrate child labor concerns in main VC and inclusive business practices. - ESMP shall follow FAO Guidelines: Handbook for monitoring and evaluation of children labor in agriculture.²¹² - Liaising and sharing information with relevant authorities at county level whenever issues arise (e.g. Ministry of Labor and Social Protection, county's offices, Department of Children Services, and local NGOs working on child labor. 	<ul style="list-style-type: none"> - Frequency: Continuous from Y1-Y6
Inadequate inclusion of IP communities, women, PLWD and marginalized groups (ESS 1, 8, 9)	<ul style="list-style-type: none"> - Overall, the project supports equal opportunity for participation in FFS with respect to gender, indigenous groups, non-indigenous groups, and specific vulnerable groups (refer Chapter 6 of ESMF). For Indigenous groups, the Free, Prior, and Informed Consent process will be followed throughout the project as sub-activities are identified, and participatory monitoring and evaluation will be practiced, thus feeding into ongoing improvement of the project activities. - Establishment of cultural appropriate GRM that is accessible and sensitive towards IP groups (e.g., language, literacy levels, level of access to technology) and that have been discusses/socialized with them. - Training and meetings with PLWDs will be organized in close-by locations in the communities, in sensitive teaching and learning environments. To cater to the special needs of the PLWDs with visual, hearing, physical and speech impairments train them in braille, sign and audio languages). - Extensive use of GALS methodology to empower women and make women's roles, needs and aspirations visible; and sensitizing smallholder farmers, women, men and youth to the need of gender justice to increase well-being. - Increasing women's selfefficacy, access to knowledge, skills, capital through training, grants, exposure visits and GALS fairs - Entrepreneurship training, technical training in the selected value chains (poultry, small ruminants, others) for youth. 	<ul style="list-style-type: none"> - Responsible: PMU and implementing partners. - Verification: Training records, consultation meetings and E&S reports. - Frequency: as required, continuously Y1-Y6.
Increase consumption of water and energy in	<ul style="list-style-type: none"> - Select energy-efficient machinery and equipment (e.g., tractors, ventilation systems, drying and storage systems, cooling devices) and consider on-board fuel-use monitors 	<ul style="list-style-type: none"> - Responsible: PMU and implementing partners

²¹² Handbook for monitoring and evaluation of children labor in agriculture: Measuring the impacts of agriculture and food security programmes on child labor in family-based agriculture, <https://www.fao.org/3/i4630e/i4630E.pdf>

POTENTIAL RISK	MITIGATION MEASURES & OPPORTUNITIES TO ENHANCE POSITIVE IMPACTS	MONITORING ARRANGEMENTS
agro-processing facilities (ESS2)	(reduce heat loss from thermal processes, improve cooling efficiency - Promote use of renewable energy - Adopt best-practice methods for facility cleaning and operation (solar water heaters, pumps, cooling systems), biogas and biomass. - Promote Integrated Water Management along with intermittent water quality monitoring - Ensure water users obtain water abstraction permits from relevant authorities.	- Verification: Inspection, E&S reports of abstraction, field visits - Frequency: Quarterly

Source: Authors' own elaboration.

227. Summary of Environmental mitigation measures: With respect to on-farm impacts, the indirect, increased use of pesticides will be mitigated against by proactively offering training on IPM. In instances where pesticide use is unavoidable, training on the safe handling of pesticides will be provided and bio-pesticides will be promoted over other varieties. Indirect, increased use of pesticides will be mitigated against by proactively offering training on IPM. In instances where pesticides use is unavoidable, training on the safe handling of pesticides will be provided and bio-pesticides will be promoted over other varieties. There will be no pesticides procurement under this project, and highly hazardous pesticides (HHP) would not be used in the project areas. Develop ESMPs that address waste disposal/ management, and follow recommendation established by industry-specific best management practices (e.g. [Environmental, Health & Safety Guidelines](#), Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests), sustainable certification schemes will also be promoted (e.g. FairTrade, Global Gap). For additional mitigation measures refer to **Appendix 9** "Example of additional mitigation actions of main production systems"

228. Summary of Social mitigation measures: Risks associated with OHS, decent rural employment and child labor, GBV/SEAH; gender and land tenure will be mitigated with application of: (i) the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (VGGT); (ii) sensitization training on safe, decent rural employment and age-appropriate work, given that youth often assist with the farming work of their respective families; sensitization and trainings on GBV and SEAH at all levels (household, EE, project staff); and (iii) safe and secured use of pesticides; (iv) use adequate and verifiable mechanisms for age verification in recruitment procedures. A Gender Action Plan has been designed to properly address women barriers and challenges. To further ensure social inclusion of indigenous groups, ongoing consultations process and FPIC will be carried out and participatory M&E will continue throughout the project life cycle as a means of providing a feedback loop to foster stakeholders' ownership and social accountability. Include indigenous representative within different project decision making bodies (e.g. local or regional Project Committees). The established grievance redress mechanism (GRM) will be conducted in line with the requests from community consultations and will be sensitive to the needs of vulnerable groups (indigenous peoples, PLWD, women, youth) and will take into consideration GBV and SEAH. A capacity building and training program tailored to the needs and roles of the different stakeholders (extensionist, farmers, FOs youth, elderly, women, marginalized groups, project staff, EE, implementing partners) will be developed to address different topics throughout the project cycle: E&S safeguards, GRM, decent work, use and management of pesticides; first-aid training; gender mainstreaming; others. The project will also include in its ESMP safeguards to ensure that each technical lead and service provider ensures that there are no exploitative labour practices (e.g., forced or child labor and the protection of children's rights). ESMP will be carried

to identify additional potential social risks along with measures to mitigate, monitor and manage identified impacts. Forced Labor Contractors will be required to comply with national legislation and as precautionary measure to conduct an induction and random inspection will be done on a regular basis to ensure compliance Child Labor Contractor will be prohibited to employ anyone under the age of 18 years. Monitoring will be done through the National ID system that every employee is required to produce on employment. If a contractor is found to have engaged All employment relationships established will be based on the principle of equal opportunity and fair treatment and will not discriminate with respect to any aspect of employment.

229. All employment relationships established will be based on the principle of equal opportunity and fair treatment and will not discriminate with respect to any aspect of employment. ESMP shall provide guidance on appropriate contractual arrangements and set out the conditions in which project workers will be employed or engaged and managed in accordance with the national law and following applicable labour terms and conditions indicated the FAO Framework for ESMF (as applicable).

230. All contracts with project staff, implementing partner, executing entities and service providers will include provisions that: (i) prohibit any act of sexual harassment, exploitation and abuse; (ii) establish an obligation to report immediately to FAO-Kenya office, the Government or the project any incidents of corruption, fraud, sexual harassment and exploitation, child labour and any unethical behaviour of staff and partners of the project; (iii) provide for the immediate termination of the contract on the basis of proven acts of sexual harassment, exploitation or abuse in connection with an activity or operation financed or managed under the project; (iv) prohibit the use of child labour in the project; (v) setting up and implementing a grievance mechanism; and (vi) recommend inclusion of people with disabilities in project activities and as possible, preference should be given to women for any employment; vii) ensure workers' are trained in occupational health and safety, and that they are provided appropriate personal protective equipment suitable for their duties. Ensure procurement by the PMU, counties and contractors are consistent with FAO Environmental and Social Safeguards and the project's ESMF and ESMPs.

8.2 Summary of objectives and principles for implementation of the Gender Action Plan

231. **Gender Action Plan.** To safeguard against issues of gender equality (ESS8) and to ensure mainstreaming of gender throughout the project design, a Gender Action Plan was prepared for the project. Specifically, the plan ensures adequate inclusion and promotion of women throughout the project's activities and helps in safeguarding women's rights. It further includes measures to mainstream SEAH risk mitigation, ensure accessibility to survivor-centered and gender-responsive GRM, and ensure gender-responsive monitoring and evaluation for project implementation.

232. **Objective.** The objective of the Gender Action Plan is to establish clear targets, in a time-bound framework, to ensure the inclusion of women in the project and operationalization of the GCF Gender Policy. The GCF Gender Policy is meant to ensure that the project adopts a gender-sensitive approach so that the GCF-funded project will efficiently contribute to gender equality and achieve greater and more sustainable climate change results, outcomes, and impacts.

233. **Principles.** The principles that govern the Gender Action Plan are in accordance with ESS8 – Gender Equality, as well as the GCF's guidance on Gender Action Plans, vis-à-vis their Gender Policy. The following six fundamental principles provide the basis upon which the Gender Action Plan has been developed:

- Commitment to gender equality and equity.
- Inclusiveness in terms of applicability to all GCF-funded activities.
- Accountability for gender and climate change results and impacts.
- Country ownership in terms of alignment with national policies and priorities and inclusive stakeholder participation.
- Competencies throughout the GCF's institutional framework; and
- Equitable resource allocation so that women and men benefit equitably from the Fund's adaptation and mitigation activities.

234. There are the following priority areas for the Gender Action Plan, namely:

- Governance and institutional structure.
- Operational guidelines.
- Capacity building.
- Outputs, outcomes, and impact indicators for monitoring and reporting purposes.
- Resource allocation and budgeting; and
- Knowledge generation and communications.

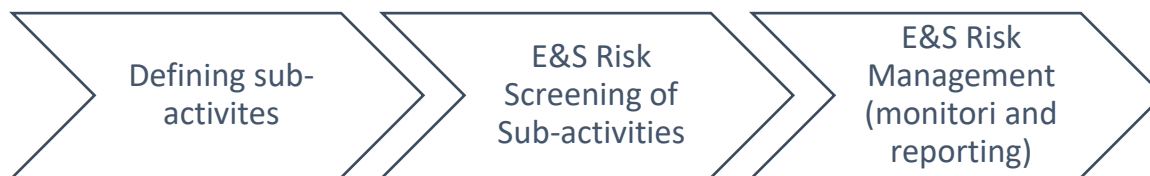
235. The Gender Analysis and Gender Action Plan for this project are provided as separate, stand-alone documents, submitted in complement to this ESMF (see FP Annex 8). FAO, as the accredited entity, will be responsible for responsible for implementation, compliance, and reporting of safeguards.

9 Principles and procedures to mitigate impacts for implementation

236. This ESMF, along with the Gender Action Plan (GAP) and other guidelines and standards mentioned in this document, are not being used solely as a compliance process, but to be proactively implemented throughout the project lifecycle, mainly by FAO staff and the project PMU; furthermore, executing entities and implementing partners will also have to adhere and comply with mitigation measures established on these documents. Similarly, the project GRM describe in this document is not to be use as a last-resort mechanism; rather, but also to actively anticipating potential problems and initiating preventive strategies and actions to enhance the projects' E&S performance. To ensure that the environmental and social issues are addressed properly in accordance and in compliance with the FAO and GCF Policies, all project activities shall undergo screening, assessment, review, and clearance process before execution of the project activities.

237. This chapter describes the process for ensuring that environmental and social concerns are adequately addressed through the institutional arrangements and procedures used by the project for managing the identification, preparation, approval, and implementation of sub-activities²¹³. Detailed environmental and social safeguard process consists in three stage process:

²¹³ The term 'sub-activity' from a safeguards perspective would simply be a way of conveniently grouping existing project financing commitments but where it may be believed that this set of activities have a distinct and important risk profile that warrants being the subject of a safeguards screening and possible additional / specific risk mitigation actions. This is usually because during the design the exact locations of activities have not yet been identified and/or the details of activities have not yet been defined.



9.1 Step 1: Defining sub-activities

238. By design, the project is expected to have far greater environmental benefits than adverse environmental impacts. The potential adverse environmental impacts from the project are likely to be small and limited (site specific). However, it is recognized that such impacts can accumulate into larger impacts if they are not identified early during the planning cycle and their mitigation measures integrated into the project planning, implementation, and monitoring.

239. The project intervention areas will be identified during Year 1 of the project and will be consistent with Landscape Management Strategy developed under Component 2. Considering activities to be implemented in each project site will be, very similar, in nature, size and scale across the implementation area, it is proposed that screening for potential risks and impacts is undertaken at sub-activity level. In this context, sub-activities will be identified during the inception phase in Year 1 taking into consideration the results from different baselines studies and surveys that are to be carried as part of Component 1 and 3. For each sub-activity, implementing sites will be identified along with activities, including capacity building/training and stakeholder engagement information specific to each site.

9.2 Step 2: Environmental and social risk screening of sub-activities

240. FAO's environmental and social screening determines if a sub-activity will require an Environmental and Social Management Plan (ESMP). While the nature, magnitude, reversibility, and location of impacts are main elements in the screening of sub-activities, expert judgment from the PMU Safeguard Specialist and the FAO ESM Unit (for last-step quality control) will be a main factor in deciding whether an ESMP is required for a sub-activity or not. The FAO screening template, included in Appendix 6 will be used to guide the screening. Activities under Appendix 1 will be excluded from the project.

241. For a sub-activity that requires an ESMP, the proposal must include a set of mitigation measures with monitoring and institutional arrangements to be taken during the implementation phase to correctly manage any potential adverse environmental and social impacts that may have been identified.

242. FAO undertakes environmental and social screening following FAO's Environmental and Social Screening Checklist. Once the implementation sites and beneficiaries are determined, a screening checklist is completed and signed off by the safeguard's specialist at the PMU. The results of the screening are aggregated by the safeguards specialist. This document is sent to ESM unit in FAO HQ for review and clearance. Screening of sub-activities involves:

- Checking that the activities involved are permissible (as per the legal and regulatory requirements of the project).

- Determining the level of environmental assessment required based on the level of expected impacts; as well as assessing the level of risk related to SEAH.²¹⁴

243. The E&S screening checklist (attached in Appendix 6) will result in the following screening outcomes: (i) determine the category for further assessment; and (ii) determine which environmental assessment instrument to be applied.

244. Additional safeguards documents (i.e., those prepared after project start) will be prepared by the environmental and social safeguards specialist in the PMU prior to the implementation of activities and sent to ESM Unit in FAO Headquarters for endorsement.

245. The documents will outline the following information relative to each sub-activity:

- a. Description of the activities to be carried out in all sites.
- b. Description of each implementing site:
 - i. Geography and specificities in terms of activities
 - ii. Beneficiaries and stakeholders
 - iii. Map of the site
- c. Description of the stakeholder engagement process that was carried out in the inception phase and the stakeholder engagement plan to be carried during implementation.
- d. Breakdown of information by site about the grievance mechanism and disclosure
- e. Aggregated results of the environmental and social screening checklists per sub-activity signed off by the Safeguards Specialist in the Management Unit.
- f. Where applicable, Environmental and Social Management Plans identifying mitigation measures, indicators, responsibilities, and timeframe. The ESMP will be added to the monitoring plan to ensure safeguards performance is regularly reported upon along with stakeholder engagement monitoring per site.

9.3 Step 3: Environmental and social risk management (monitoring and reporting)

246. Sub-activities classified as medium risk based on the environmental and social risks identified during the screening process will then be required to develop ESMPs that include information on the mitigation actions, the indicators and timeframe where the completion of such mitigation actions are expected. It should be noted that the project will not finance high risk activities or sub-activities (see non-eligibility list in Appendix 1).

247. While the nature, magnitude, reversibility, and location of impacts are main elements in the screening of sub-activities, expert judgment will be a main factor in deciding whether an ESMP is required for a sub-activity or not.

248. The ESMP should include:

²¹⁴ FAO has recently developed a new policy that supersedes [the existing 2015 policy](#) – FAO’s Framework for Environmental and Social Management (FESM) – has just been endorsed in June 2022. FESM has explicit reference to SEAH and will be accompanied by relevant operational guidance. In the meantime, FAO confirms that sufficient technical resources and capacities to ensure compliance with GCF requirements regarding SEAH are available (see also the FAO Annual Report on Corporate Policy, Processes and Measures on the Prevention of Harassment, Sexual Harassment and Sexual Exploitation and Abuse, <https://www.fao.org/3/ng643en/ng643en.pdf>). It is also our understanding from [GCF’s SEAH Action Plan](#) is that GCF will develop a SEAH risk screening tool in October that would be taken into account when developing SEAH operational guidance.

- **Mitigation Measures:** Based on the environmental and social impacts identified from the checklist, the ESMP should describe with technical details each mitigation measure, together with designs, equipment descriptions and operating procedures as appropriate. It should also cover measures to mitigate and monitor SEAH.
- **Monitoring:** Environmental and social monitoring during the implementation of the sub-activities, to measure the success of the mitigation measures. Specifically, the monitoring section of the ESMP provides:
 - A specific description and technical details of monitoring measures that include the parameters to be measured, the methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions.
 - Monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and to furnish information on the progress and results of mitigation, e.g., by annual audits and surveys to monitor overall effectiveness of this ESMP.
- **Institutional Arrangements:** The ESMP should also provide a specific description of institutional arrangements, i.e., who is responsible for carrying out the mitigating and monitoring measures (for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting and staff training). Additionally, the ESMP should include an estimate of the costs of the measures and activities recommended so that the necessary funds are included. The mitigation and monitoring measures recommended in the ESMP should be developed in consultation with all affected groups to incorporate their concerns and views in the design of the ESMP.

249. The ESMP will also include, where relevant other specific management plan (e.g., indigenous peoples plan). The particular needs and circumstances of women and men, particularly marginalized, vulnerable and disadvantaged groups, shall be addressed in any ESMP.

250. Once drafted, the ESMP will be disclosed for at least 30 days prior to its official endorsement both online and in locally accessible places convenient to affected persons in the project area. This will follow the same disclosure protocols as described in Chapter 5 (i.e., ESMP will be disclosed online on the FAO websites, and physical copies will be made available in English).

251. Once the ESMPs are endorsed by the ESM unit in FAO Headquarters, the safeguards specialist from the PMU will ensure ESMPs are included and reported upon, along with stakeholder engagement in the context of the monitoring plan.

252. In this context, field staff will be responsible for monitoring the progress, as relevant, in the monitoring plan, as well as to identify any potential risks that may emerge through the implementation phase. This information will be compiled in progress reports and templates will include a section on E&S risk management, where the above information will be reported upon.

253. Information from progress reports will be received by the environmental and social safeguards specialist in the PMU who will compile the information received in the progress reports, as well as that related to grievances to feed in a semi-annual report on Environmental and Social Safeguards Performance to be endorsed by the ESM unit in FAO.

10 Implementation arrangements

254. The implementation of the environmental and social safeguards is based on the overall project implementation arrangement. FAO will serve as the Accredited Entity (AE) for this project. As such, FAO will be responsible for the overall management of the project, including: (i) all aspects of project appraisal; (ii) administrative, financial and technical oversight and supervision throughout project implementation; (iii) ensuring funds are effectively managed to deliver results and achieve objectives; (iv) ensuring the quality of project monitoring, as well as the timeliness and quality of reporting to the GCF; and (v) project closure and evaluation. FAO will assume these responsibilities in accordance with the detailed provisions outlined in the Accreditation Master Agreement (AMA) between FAO and GCF. FAO role as AE will be attributed to the relevant offices and divisions in FAO Headquarters located in Rome, Italy, Sub-Regional Office for Eastern Africa located in Addis Ababa, Ethiopia and the Country Representation Office for Kenya (FAO-Kenya) with support by other technical divisions located FAO headquarters in Rome (HQ), as required.

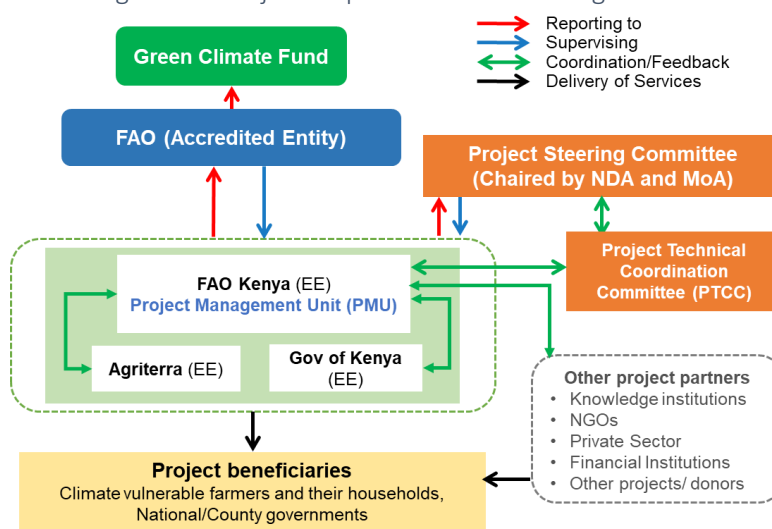
255. To perform these AE functions, FAO will set up a **Project Task Force (PTF)** comprising relevant staff from the FAO country office in Kenya, the FAO Regional Office for Africa, and FAO Headquarters. Members of this PTF will perform the necessary supervision and oversight functions, including: supervision and backstopping missions during the entire implementation period; reviews of regular progress and financial reports prepared by the Executing Entities; and commissioning regular spot checks and audits. The PTF will remain independent of the Executing Entity functions also performed by FAO (more information below). In line with the GCF policy on fees adopted through GCF Board Decision B.19/09, the above-mentioned segregation of responsibilities within FAO will ensure that the Organization can effectively perform the types of Accredited Entity functions listed in the GCF General principles and indicative list of eligible costs covered under GCF fees and project management costs.

256. **Project Steering Committee (PSC):** will be established to provide strategic guidance for the project. The role of the PSC will be to: (i) provide overall guidance and direction to the project, ensuring it remains within any specified constraints; (ii) address project issues as raised by the national project coordinator; (iii) monitor project risks and the effectiveness of mitigation measures, and provide guidance on new project risks, and agree on possible countermeasures and management actions to address specific risks; (iv) review the project progress, and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans; (v) review and agree with annual work plan and provide necessary strategic guidance for its implementation; (vi) appraise the annual project implementation report, including the quality assessment rating report; (vii) make recommendations for subsequent work plans to build on achievements and address any shortcomings; and (viii) provide ad hoc direction and advice for exceptional situations when the project coordinator's tolerances are exceeded.

257. **Executing Entities (EE):** Overall, FAO Kenya will bear with the responsibility for fulfilling the EE functions in collaboration with other specialized EE: (i) the Republic of Kenya through the National Treasury & Economic Planning Ministry (National Treasury); (ii) Agriterro (Figure 26). All EEs will be responsible for the delivery of the project activities under each Component and will cater to the respective individual, professional, or institutional beneficiaries for these actions. At the local level, project activities will be coordinated with county's offices.

258. **Project Management Unit (PMU):** A PMU will be established, with the participation of Kenya NDA (The National Treasury), relevant governmental stakeholders, FAO Kenya Office and Agriterra. The PMU will be headed by a full-time project-recruited Project Coordinator who will be responsible for project delivery and coordination with all stakeholders. The PMU will be responsible for providing support to the execution of day-to-day activities with participating national and county governments officials, as well as other stakeholders. PMU staff will be composed by technical and administrative staff, including Procurement Officer; Finance Officer; M&E Specialist; among others. Regarding E&S due diligence process, PMU will also be integrated by Lead Safeguards Specialist, Gender and Social Inclusion Specialist, along with the support of Indigenous Specialist; Land Tenure Specialist. Furthermore, resources have been allocated to hire additional E&S specialist to support project activities (e.g., support financial intermediaries and or project staff in drafting ESMPs, as needed).

Figure 26 Project implementation Arrangements



Source: Authors' own elaboration.

259. The **Lead Safeguards Specialist** (fulltime) will be hired to ensure compliance with the ESMF, its implementation, and its regular reporting across all project activities, following GCF and FAO environmental and social safeguards. The Lead Safeguards Specialist is responsible for ensuring that staff on-ground in the project areas conduct a screening for sub-activities prior to implementation, and then mitigate for any medium-risk activities using ESMPs developed during implementation, based on that screening. The approach allows for specificity under each project area and for the nature of the sub-activities, rather than blanketing all districts with the same training/mitigation measures (some measures will only be applicable in a few areas, and this will only be discernible once specific villages/communities have been selected during implementation). Guidance for screenings and for ESMPs is provided as part of the ESMF. The Lead Safeguards Specialist would also manage the monitoring and evaluation (M&E)/reporting for the environmental and social safeguards aspects of the project, working closely with the project's M&E and knowledge teams. Lead Safeguards Specialist will also participate on GRM, as indicated in Section 5 of the ESMF.

260. As part of the project's effort to ensure sufficient capacity of project personnel to effectively manage environmental and social risks throughout the project implementation period, the project will: (i) include safeguards-related requirements in the Terms of Reference for relevant project-recruited staff; and (ii) actively strengthen the relevant capacity of these individuals once recruited. The envisaged capacity

strengthening (as outlined in Appendix 9: ESMF Timeline and Budget of this document) includes: (i) an initial training on E&S safeguards for all project personnel; and (ii) annual refresher trainings on E&S safeguards for all project personnel and implementing partners.

261. All Executing Entities and Implementing Partners will undergo capacity building trainings on FAO's E&S safeguards (covers SEAH, GBC, GRM, others) and will designate a contact person for environmental and social matters. EEs will ensure that contractors and sub-contractors are aware of the projects E&S mitigation measures and comply with the ESMF/ESMPs and related plans.

262. **Summary of institutional arrangements related to environmental and social safeguards:** Overall compliance with the project's ESMF and ESMP will be assured by the project's National Safeguards Specialist, hired within the Project Management Office (PMO), who will work closely together with other national/international safeguard specialists hired by the PMU. These specialists will closely collaborate with the Executing Entities, governmental staff, FOs and smallholders to ensure project compliance with national and international E&S regulations and with the mitigation measures established on ESMF and its related documents. Regular updates and reporting on safeguards will be provided at PSC meetings by the National Safeguard Specialist and implementing counterparts.

263. Additional considerations for project implementation and monitoring of ESS:

- **Component 1 and 2:** PMU through its technical staff (through E&S Specialists) is responsible for implementing the ESMF and related plans (e.g., ESMPs, GAPs). M&E Specialist is responsible for monitoring and reporting on the implementation of the mitigation measures established on the E&S plans/frameworks.
- **Component 3:** FAO and Agriterro are responsible of ensuring that project mitigation measures established in the ESMF and related plans (e.g., ESMPs, IPPFs, IPMs, GAPs) are implemented. Activities will be screened following procedure established on Chapter 8 of ESMF "Principles and Procedures to Mitigate Impacts for Implementation", using FAO's Environmental and Social Screening Checklist. FAO through PMU and M&E Specialist will monitor compliance with E&S plans. All activities shall follow Appendix 1- Exclusion list and be aligned with the County's Landscape Management Strategies (developed under Component 2).
- **Component 4:** Executing Entities are responsible for the implementation of the project's E&S safeguards established in the ESMF and its related documentation (other E&S plans). The PMU is responsible for the monitoring and reporting the implementation of E&S mitigation measures (ESMF/ESMPs/GAP, etc.) and the overall project E&S performance. M&E Specialist will develop (in coordination with FIs) a standardize template for the annual reporting of FIs on each of the Projects funded under the project.

Components	Executing Entity	M&E (MRV)
1. Enabling local government support for adaptation and mitigation	FAO	FAO & AGT
2. Sustainable Resilient Agricultural Landscapes	FAO & GoK	
3. Resilient livelihoods	FAO & AGT	
4. Scaling through CRLCSA market and finance	FAO, AGT	

264. The ESMPs will be the core monitoring tools in ensuring that the project complies with the recommended safeguards measures. The ESMP identifies some indicators that can be embedded into the project's operational M&E framework in order to ensure that the implementation of safeguards is regularly monitored. FAO will monitor implementation of the ESMP during its annual supervision missions, mid-term and project completion. The NEMA (through regional County offices) will also be engaged periodically in the monitoring of implementation of the safeguards measures. The Indigenous Peoples Framework and related Action Plan will be the guiding tool on how to engage with indigenous peoples and its key indicators, including the number of IPs reached, will be included and updated within the project's operational M&E framework.

265. ESMP shall include a standardized monitoring program for the project, addressing the main E&S risk that have been triggered as per this ESMF. The program is subject to review and update at least every three months from the date of issue, the E&S specialist and Monitoring Officer will lead the process with the support of the rest of the PMU specialist (e.g. gender and inclusion specialist, among others). PMU on site officers will be required to:

- Conduct site inspections on a regular basis.
- Develop a site-specific checklist to document non-conformances to this ESMP or any applicable ESMF
- Communicate the results of inspections and/or water quality testing and ensure that any issues associated with control failures are rapidly rectified and processes are put in place to ensure that similar failures are not repeated.
- Control monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP
- The PMU must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to noise is exceeded

266. Project supervision and implementation support: The project will be supervised jointly by GoK (through the county offices) and FAO. Annual supervision, followed by shorter follow-up/implementation support missions six months later, will be organized every year during the project's lifetime. In addition to monitoring implementation and reporting on project performance status and results, supervision missions will be used as opportunity to assess achievements and lessons learnt, and to reflect upon ways to improve implementation and impact.

Appendix 1: Exclusion list

The project will not support sub-projects or activities that are categorized by the screening process (see chapter 6) as high-risk subprojects (equivalent to GCF E&S risk Category A²¹⁵ projects/activities). The following list describes activities that are considered high-risk and as such would be excluded from being funded:

- Projects and activities that are to be developed in areas considered as ecologically sensitive or important, such as protected areas and buffer zones, conservation set asides, and critical habitats or areas of high conservation value and that have not obtain FPIC consent from affected groups.
- Significant conversion or degradation of natural habitat or where the conservation and/or environmental gains do not clearly outweigh any potential losses; this includes new settlements or expansion of existing settlements (expansion of agricultural frontier).
- No land conversion of natural habitat to agriculture or grazeland will take place, the project will not result in increases in areas under cultivation within protected areas.
- Practices that may decrease biodiversity, affect the quality of soils and water, alter the ecosystem functionality or result in significant degradation (biological or physical).
- Introduction of non-native or non-locally adapted species, breeds, genotypes or other genetic material. Any introductions of non-native species will be subject to a risk assessment (as part of the client's environmental and social risks and impacts identification process) to determine the potential for invasive behavior.
- Projects and activities deemed illegal under host country laws/regulations or international conventions and agreements; or subject to international phase-outs or bans, such as ozone depleting substances, polychlorinated biphenyls, hazardous pharmaceuticals, pesticides or herbicides²¹⁶ or chemicals. As well as use or purchase of genetically or living modified organisms.
- Activities that may significantly increase GHG emissions (e.g. conversion of existing critical, natural or high conservation value habitat into agriculture, grazeland or forestry plantations);
- Activities or investments in areas/land which may have land tenure issues and/or if land titles are not clear.
- Projects that involve land acquisition (purchase or leases), involuntary resettlement, and physical or economic displacement.
- Projects involving harmful and exploitative forms of forced labor, employ of children in any manner that is economically exploitative, or is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health (physical, mental, spiritual) and its development.
- Activities that would lead to increased law enforcement of existing use restrictions to natural resources with a risk of triggering violations of human rights
- Areas considered as culturally or socially sensitive areas or activities that are to be carried on sacred grounds, burial sites, cultural and heritage sites, critical and special areas.
- Damage or loss to cultural property, including sites having archeological (prehistoric), paleontological, historical, religious, cultural and unique natural values; as well as physical works including earth works situated in an area where cultural resources (in particular hidden resources) are expected.
- Project activities undertaken inside the ancestral lands and/or of ancestral domains if Free, Prior and Inform Consent Process has not been obtained.

²¹⁵ Sub-projects or activities where environmental and social risks may be significant, unprecedented, diverse, and irreversible.

²¹⁶ Includes any other banned agrochemical under host regulation or international regulation.

- Introduction of non-native or non-locally adapted species, breeds, genotypes or other genetic material, where the risk assessment has not ruled out a risk of developing invasive character unless there is a mitigation plan to avoid this from happening.
- Unsustainable harvesting of natural resources - animals, plants, timber and/or non-timber forest products - in critical natural habitats; including, the establishment of forest plantations in critical natural habitats.
- No pesticides, insecticides, and/or herbicides will be allowed in the buffer zone of protected areas, protected forests, and/or natural habitats. Highly Hazardous Pesticides (HHP) will not be used by the project
- Purchase of destructive farming gear and other investments detrimental to the environment.
- Forestry operations, including logging, harvesting or processing of timber and non-timber products (NTFP).

Appendix 2: List of banned and restricted pesticides in Kenya

In Kenya the Pest Control Products Board (PCPB) is a statutory organization of the Government of Kenya established under the Pest Control Products Act of 1982 to regulate the importation and exportation, manufacture, distribution, and use of pest control products in the country. The following tables provide an overview of banned and restricted pesticides in the country, as per <https://www.pcpb.go.ke/banned-products-in-kenya/> and <https://www.pcpb.go.ke/restricted-products/>

List of banned pesticides for agriculture use:

Common name	Type
Aldicarb	Insecticide/Nematicide
5 Isomers of Hexachlorocyclo-hexane (HCH)	Fungicide
Alachlor	Herbicide
Aldrin	Insecticide
Benomyl	Insecticide
Captafol	Fungicide
Carbofuran	Insecticide/Nematicide
Chlordane	Insecticide
Chlordecone	Insecticide
Chlordimeform	Insecticide
DDT (Dichlorodiphenyl)	General Use
Dibromochloropropane	Soil Fumigant
Dieldrin	Insecticide
Dinoseb	Herbicide
DNOC & its salts (such as ammonium, potassium & sodium Salt)	General Use
Endosulfan	Insecticide
Endrin	Insecticide
Ethyl Parathion	Insecticide
Ethylene dibromide	Soil Fumigant
Heptachlor	Insecticide
HeToxaphene (Camphechlor)ptachlor	Insecticide
Hexachlorobenzene (HCB)	Fungicide
Lindane	Insecticide
Mercury Compounds	Fungicide
Mercury Compounds	Herbicide
Methyl Parathion	Insecticide
Mirex	Insecticide
Phorate	Insecticide
Phosphamidon	Insecticide
Thiram combinations	Fungicide

Trichlorfon	Insecticide
Trichloroethane	Insecticide

List of banned products:

Common name	Remarks
Benomyl, Carbofuran/Thiram combinations	Dustable powder formulations containing a combination of Benomyl below 7%, Carbofuran below 10% and Thiram below 15%.
DDT (Dichlorodiphenyl)	Insecticide, restricted use to Public Health only for mosquito control for indoor residual spray by Ministry of Health. Banned for agricultural use.
Ethyl Parathion	Insecticide, capsule suspension formulations allowed in 1998.
Methyl parathion	Insecticide, capsule suspension formulations allowed in 1998.
Phosphamidon	Insecticide, Soluble liquid formulations of the substance that is below 1000g active ingredient/L.

Appendix 3: FAO guidance document for pest and pesticide management

FAO promotes Integrated Pest Management (IPM) as a pillar of sustainable agriculture. IPM means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human and animal health and/or the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms. The CRLCSA project promotes the use of biological products or biopesticides (derived from natural materials such as animals, plants, bacteria, and certain minerals), agroecology and agroforestry practices. The project does not foresee the provision or use of large volumes of pesticides, however considering that the LREB zone presents highest use of pesticides, and great proportion of these pesticides are categorized as Highly Hazardous Pesticides (HHPs) and have been banned in Europe, the following guidelines have been prepared, as it is possible that through the project activities there is an indirect increase in the use of chemical pesticides as not all farmers and farmers organization might adopt all CRLCSA practices.

This appendix provides guidance on pest and pesticide management within field projects, as well as a simplified pest management plan. The implementation of the project pest management plan will be closely coordinated with **FAO Plant Production and Protection Division (AGPM)** and with the counties offices of the Ministry of Agriculture, Livestock, Fisheries and Cooperatives (MoALFC). The Pesticide Plan shall comply with international standards:

- International Code of Conduct on Pesticide Management is a voluntary framework that has been endorsed by the FAO Members and supported by key pesticide industry associations and civil society organizations.
- Codex Alimentarius (Codex Committee on Pesticides Residues); Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; the Stockholm Convention on Persistent Organic Pollutants; the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; Montreal Protocol on Substances that Deplete the Ozone Layer; the Convention concerning Safety and Health in Agriculture, among others.

Background:

Pesticides require special attention because they are toxic and their distribution and use should always involve managing the risks to human health and the environment. Furthermore, inappropriate use of pesticides may reduce agricultural productivity and result in pesticide residue levels that become a constraint to marketability of crops both on domestic and export markets.

Selection of pesticides

FAO does not maintain a list of permitted or non-permitted pesticides because many locally specific conditions determine the pesticides that may be used. In line with the provisions of the FAO/WHO International Code of Conduct on Pesticide Management (FAO and WHO, 2014) and other multilateral environmental agreements that cover pesticides, the following list of criteria will need to be met in order for a pesticide to be considered for use in an FAO programme or project:

- The product should be registered in the country of use, or, if no registration exists, specifically permitted by the relevant national authority. The use of any pesticide should comply with all the registration requirements, including the crop and pest combination for which it is intended.

- Users should be able to manage the product within margins of acceptable risk. FAO will not supply pesticides that meet the criteria for highly hazardous pesticides laid out in the **FAO/WHO Guidelines on Highly Hazardous Pesticides**²¹⁷. Pesticides that fall under the WHO Hazard Class 2, or Category 3 of Acute Toxicity in the Globally Harmonized Systems (GHS) of Classification and Labelling of Chemicals, can only be provided if less hazardous alternatives are not available, and it can be demonstrated that users adhere to the necessary precautionary measures.
- Preference should be given to products that are less hazardous, more selective, and less persistent, and to application methods that are less risky, more effectively targeted and require fewer pesticides. These products are not limited to chemically synthesized compounds; they also include non-chemical tools, such as biopesticides, biological control agents or agroecological methods. In addition, in accordance with IPM principles, pesticide applications are to be made in an informed, directed manner. Wherever applicable, the concept of economic thresholds or action thresholds will be employed to guide pesticide applications. Unguided, broadcast sprays and prophylactic uses (e.g. through pesticide seed coating or soil drenches) are in conflict with core IPM principles and will not be endorsed in FAO programmes and projects.
- The pesticides used do not contain active ingredients that are banned or restricted under applicable international treaties and agreements, or meet the criteria of carcinogenicity, mutagenicity, or reproductive toxicity as set forth by international agencies.
- The product should not be subject to the Stockholm Convention on Persistent Organic Pollutants. The list of pesticides concerned can be found at: <http://chm.pops.int>
- Any international procurement of pesticides must adhere to the provisions of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
- The projects shall avoid, where feasible, or minimize as much as possible the use of pesticides that affect non-target species or damage the natural environment, degrade ecosystem services (e.g. pollination and natural biological pest and disease control), compromise soil health, or contribute towards the development of resistance in pests, vectors and other organisms. Target species should be targeted as much as possible in space and time, tailoring the use of pesticides so that the impact on non-target species is minimized, for instance by avoiding spraying during the hours where pollinators are the most active.
- In addition, any pesticide utilized within the project must meet the legal requirements of the Government of Kenya (see Appendix 2 for a list of banned and restricted pesticides in the country).

Pesticide Management

FAO applies the following requirements to all pesticides that are being supplied directly by the Organization, as well as pesticides supplied by others within the framework of FAO programmes and projects:

- A thorough risk assessment should be conducted that leads to adequate measures to reduce health and environmental risks to acceptable levels. This risk assessment will involve a detailed analysis of the availability, feasibility and cost-effectiveness of non-chemical alternatives, including biological control and agro-ecological measures.
- Quantities to be provided should be based on an accurate assessment of actual needs, as anticipated when consciously adopting an IPM approach. Pesticides should not be provided as fixed components of inputs packages of projects, credit schemes or emergency assistance.

²¹⁷https://apps.who.int/iris/bitstream/handle/10665/205561/9789241510417_eng.pdf;jsessionid=0F8CE96D50040775924845245DC7D1DC?sequence=1

- Appropriate application equipment and personal protective equipment that offer adequate protection to the user are required. If these are not available, they need to be provided by the programme or project.
- Users of pesticides must be trained to ensure they are aware of the risks and are capable of handling the supplied pesticides in a proper and responsible manner. It is important to engage both women and men in training activities, and take into consideration their respective roles and concerns, their educational level and pre-existing knowledge.
- The proper storage of pesticides in accordance with FAO guidelines should be ensured for all supplies.
- Empty pesticide containers should be triple rinsed, punctured and disposed of in an environmentally sound manner in compliance with FAO/WHO Guidelines on Management Options for Empty Pesticide Containers²¹⁸.
- Disposal

Seed treatment

The use of insecticidal seed coatings as a prophylactic method for pest management is in conflict with core IPM principles and will not be endorsed by FAO. Pesticides applications for seed storage are permitted, if their farm-level environmental impacts upon planting are zero or minimal. If pesticides are to be purchased for treatment for stored seed, the following additional conditions must be met:

- The treatment of seeds must be done in an appropriately equipped facility that ensures full containment of the pesticides.
- Users of seed treatment equipment should be provided with suitable application equipment and instructed in the calibration, use and cleaning of the equipment.
- Treated seeds must be dyed using an unusual and unpalatable colour to discourage consumption.
- All packages containing treated seeds must be clearly marked “not for human or animal consumption” with the skull and crossbones symbol for poison.
- Women and men handling treated seeds should be informed that the seeds are treated with pesticides that can have toxic effects on their health, the health of others and the environment. They should be instructed to wear proper gear, including gloves, dust masks and clothes that fully cover their body. Gloves and dust masks must be provided if these are not available. FAO programmes and projects will discourage children from accompanying their parents during the application of pesticides. If this is not possible, special measures must be put in place to protect both parents and children:
 - Packaging from treated seeds should not be reused for any purpose.
 - Commercial chemical products used for seed treatment must be formulated and registered as seed treatment products. Chemicals that have a formulation designed for spraying in fields or buildings cannot be used as seed treatment unless they have been registered as seed treatment products.

Whenever pesticides are provided by FAO, it should be established in advance which institution, and which person(s) within that institution will be responsible and liable for the proper storage, transport, distribution and use of the products. This determination will depend upon the completion of a detailed health and environmental risk assessment and an exhaustive evaluation of non-chemical alternatives. Procurement of pesticides by FAO is subject to an internal clearance procedure. The same applies to the contents of pest and pesticide management plan.

²¹⁸ <https://www.fao.org/3/bt563e/bt563e.pdf>

Responsibilities

Whenever pesticides are provided by FAO it should be established in advance which institution, and which person(s) within that institution, will be responsible and liable for the proper storage, transport, distribution and use of the products concerned in compliance with the requirements of FAO Environmental and Social Management Framework, under Environmental and Social Safeguard 2 “Resource efficiency and Pollution Prevention Management”. Procurement of pesticides by FAO is subject to an internal clearance procedure as provided by the ESS Manual. The same applies to the contents of Pest Management Plans.

In this regard, the following documents and activities require clearance from the respective FAO Sub- and/or Regional Coordinator and Plant Protection Officer. Review and clearance of pesticide purchase requests including treated seeds and treatment of stored agricultural products will be carried out in close collaboration with FAO HQ based Pest and Pesticide Management Group (AGPMC) (c/o Senior Officer Pesticide Risk Reduction Group (AGPMC)):

- All orders for pesticides to be procured by FAO, regardless of whether bought through Headquarters order, field project order or local purchase.
- Project documents that envisage procurement of pesticides.
- Terminal reports for projects that involved pesticide supply.

Requests for clearance should be submitted to the respective FAO Sub-/Regional Coordinator and Plant Protection Officer (focal point for pesticides and crop protection). Requests for procurement of pesticides must include a completed Request for Procurement of Pesticides (Appendix 2 Pesticide check list) for each pesticide. In addition, clearance must be obtained from the respective FAO Sub-/Regional Coordinator and Plant Protection Officer for any contemplated collaboration with a pesticide company or other entity of the pesticide industry (e.g.: in designing or implementing training).

Additional guidance:

Further guidance on all aspects of pesticide distribution, handling and use, is provided by the International Code of Conduct on Pesticide Management, and the Technical Guidelines that have been produced in support of the Code itself (Copies are available from the AGPMC website: <http://www.fao.org/agriculture/crops/core-themes/theme/pests/en/>).

The Plant Production and Protection Department (AGPM) and Pest and Pesticide management group/Pesticide Risk Reduction team (AGPMC) and Sub-, Regional Plant Protection Officers will be available to provide further clarification.

Sample - Simplified Pest Management Plan (PMP):

This simplified PMP aims to provide basic knowledge to the national, provincial and local government, the project implementation team, consultants, county officials, and any private and public sector agencies partnered with for the purposes of the project, with adequate guidance for effectively addressing the safeguard issues in line with ESS2. The process will be implemented as part of the project cycle and fully integrated into the sub-activity selection, approval, implementation, and monitoring and evaluation process. The project does not include procurement of pesticides, but the ESMF identifies key issues related to the existing use of pesticide and chemical fertilizers and identified mitigation measures required in relation to prohibited items, training, and guidelines on safe use and disposal of pesticides. The PMP will be applicable for all project activities related mostly to:

SECTION I. POLICY AND REGULATIONS

FAO's safeguard policy on pest management (ESS2):

The ESS5 policy requires that projects involving procurement and/or use of pesticides to prepare and implement a Pest Management Plan to ensure that the handling, transportation, usage, disposal of pesticides is safe for both human and the environment. The project will not promote the procurement of any chemical pesticides or herbicides. However, if pest invasion occurs, small amounts of eligible and registered pesticides in the project provinces is allowed if supplemented by additional training of farmers to ensure pesticide safe uses in line with FAO policies and nationally/internationally recognized guidelines.

Given that the project is designed to promote the reduction in chemical pesticide and fertilizer use in existing farmland by enhancing climate resilient, low carbon and sustainable farming practices, this simplified Pest Management Plan was prepared, along with an Exclusion List (Appendix 1). While the project will not procure and promote use of chemical pesticides and fertilizers which are included in the non-eligibility list, it may be unrealistic to completely prevent all farmers from applying chemical inputs. Specifically, shifts in agriculture production and/or control of infestation of diseases may require – in some instances – the use of pesticides, herbicides, and insecticides. To mitigate this potential impact, this simplified PMP has been prepared outlining clear regulations and procedures for management of pesticides and/or toxic chemical as well as providing knowledge and training on health impacts and safe use of pesticides and/or, when possible, promotion of non-chemical use alternatives such as organic farming. The simplified PMP is aligned with the laws and regulations of Government of Kenya, and international guidelines and best practices, including guidelines on Integrated Pest Management (IPM) provided by the Food and Agriculture Organization of the United Nations (FAO).

Relevant definitions under ESS2 include the following:

- **Pesticides** as any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest or regulating plant growth.
- **Pest** is defined as any species, strain or biotype of plant, animal or pathogenic agent injurious to plants and plant products, materials or environments and includes vectors of parasites or pathogens of human and animal disease and animals causing public health nuisance.

The ESS2 safeguard recognizes that pesticides can contribute to effective crop and food protection during production and in storage. Pesticides are also used in forestry, livestock production and aquaculture to control pests and diseases. At the same time pesticides are designed to be toxic to living organisms, are intentionally dispersed in the environment and are applied to food crops. ESS2 recognizes that pesticide use poses risks to users, others nearby, consumers of food and to the environment; these risks are often elevated by overuse, misuse and lack of effective regulatory control. ESS2 follows the guidance on the life-cycle management of pesticides as provided by the International Code of Conduct on Pesticide Management and its supporting technical guidelines that are drawn up by a FAO\WHO expert panel and which expand on specific articles. Given that chemical pesticides are used in some of the project areas, and that not all farmers wear the necessary protective gear, this policy is being triggered. The project, while it will not procure pesticides and/or promote the use of pesticides, may result in indirect increased use of pesticides in nearby areas if production increases. To mitigate against this, the project will be using IPM and also avoiding the use of any Highly Hazardous Pesticides (HHP).

The PMU will work closely with the Ministry of Agriculture, Livestock, Fisheries and Irrigation (MOALF&I) to implement the Pest Management Plan, activities will also be coordinated with the Pest Control and Product Board (PCPB) and National Environment Management Authority (NEMA) county offices.

- **MoALF&I:** Is responsible for the formulation, implementation and monitoring of agricultural legislations, regulations and policies, regulating and quality control of inputs, produce and

products from the agricultural sector and managing and controlling pest and diseases, among others,

- **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.
- **NEMA:** Exercise general supervision and coordination over all matters relating to the environment and to be the principal instrument of the Government of Kenya in the implementation of all policies relating to the environment.
- **Others:** Ministry of Health through the Government Chemists Department provides laboratory services in the fields of public and environmental health and through the Directorate of Occupational Safety and Health Services (DOSHS) ensures safety, health and welfare of workers predisposed to pesticides

Government regulation related to pest management:

The following National legal framework shall be taken into consideration: i) Plant Protection Act: makes a provision for the prevention of the introduction and spread of diseases destructive to plants); ii) Seeds and Plants Variety Act: regulates transactions in seeds, including provision for the testing and certification of seeds; for the establishment of an index of names of plant varieties; to empower the imposition of restriction on the introduction of new varieties; to control the importation of seeds; to authorize measures to prevent injurious cross-pollination; to provide for the grant of proprietary rights to persons breeding or discovering new varieties; iii) Pest Control Products Act: covers the use, application, importation and trade in pest products; iv) Tea Act: establishes the Tea Board of Kenya and charges it with various responsibilities and gives it powers to promote the tea industry in Kenya that includes pest control and management; v) Animal Diseases: provides regulation on matters related to the diseases of animals. The Legislation regulates importation of animals and provisions affecting infected areas such as prohibition of the importation or the exportation of all animals or any specified kinds of animals, and other biological or chemical products intended to be used for the control of animal disease or fodder, from any specified country, port or territory; vi) Chief Authority Act: gives the Chiefs powers to issue orders for suppressing or controlling animal or insect pests or plant pests, noxious weeds or diseases.

SECTION II. KEY ISSUES AND MITIGATION MEASURES

The Plan is developed to support project community and a responsibility of all parties to support the implementation and proper applicability of the ESS2. Negative impacts from the use of pesticides and chemical fertilizers are expected to be minor and localized and could be mitigated during the planning and implementation of the project. Given that the use of pesticides and inorganic fertilizers is normal practice for some farmers, the project will promote IPM to avoid inappropriate use of these inputs. However, it is important for the PMU, government staff, and local communities to understand the nature of such activities to encourage farmers to reduce the uses of pesticides and inorganic fertilizers. The possible activities which could be associated with the uses of pesticides and inorganic fertilizers under project:

- Implementation of sub-activities resulting in increased agriculture productivity within key crops for commercialization may lead to indirect increased use of pesticides, chemicals, and fertilizers.

Actions for mitigation:

The negative impacts from the use of pesticides and chemical fertilizers from project activities would be minor and localized and could be mitigated during the planning and implementation of the project. There are several opportunities to enhance positive impacts during the planning and selection of the sub-activities, which includes:

- Prohibition: to avoid adverse impacts due to pesticides, procurement of pesticides will not be promoted and this has been included in the “non-eligibility list” (Appendix 1).
- Project and Government Staff Training: The project will continue providing basic knowledge on alternative options for CRLCSA practices, including adoption of agroecology, agroforestry, use of biopesticides among others, as well as the safe use of pesticides and other toxic chemicals. County extension services and Farm Field Schools will be strengthened so that they can support farmers and FOs on adoption of IPM (budget is allocated under Output 1, 3 and 4) and include: a) overall policy on Pest Management (government and FAO policy); b) basic knowledge on possible negative impacts on the environment and health from the use of pesticides and chemical fertilizers; and c) basic knowledge on how to prevent these impacts, including an overview of the prohibited items in the country for pesticide and chemical fertilizers, how to prevent or mitigate the negative impacts from their use etc. (training could be done jointly with other topics). This training would be provided for sub-activities that involve the use of fertilizer and/or pesticides.
- Providing Training and Knowledge to Farmers: As part of project activities under Output 3 and Output 4 different training and capacity building activities will take place with involved communities. Pest management will be included as one of the topics during consultation meetings (which could be held at the county and ward level). If it is identified through a screening by the PMU safeguards specialist that the project area is an area where pesticides are being used, then training on pest management should be provided on the following:
 - Pest management training: The objective is to provide basic knowledge to the target farmer on prohibited pesticides, the negative impacts of the use of pesticides and chemical fertilizers both on environmental and human health, and how to mitigate their negative impacts if there is a need for using them. It is also to inform farmers that the project is not intended to support the use of any pesticides and chemical fertilizers in any agricultural productivity but promote climate resilient agriculture and conservation agriculture instead. However, if the country experiences severe pest invasions, this may lead to the usage of pesticides and chemical fertilizers in specific instances to limit losses and damages to the agriculture products. The procurement of pesticides and chemical fertilizers will not be funded under the project budget, though proper training will be offered to farmers in instances where special circumstances (e.g. insect invasion) demand use of some pesticides.
 - Training on Government of Kenya’s regulations and FAO ESS Standards: The project will train target farmers on national rules/regulations pertaining to pesticide use before any sub-activities are implemented, subject to compliance with ESS2.
 - Technical training: This training would aim at enabling target farmers to clearly understand the technical aspects of pesticides, and skills in using them (e.g. what are the eligible and prohibited items of pesticides in Kenya and as per international pesticides standards, the level of negative impacts for each eligible item, how to properly use them, how to protect and minimize the negative impacts while using them, how to keep them before and after use, etc.). Trainers would be someone from either FAO or the relevant specialists from the Ministry of Agriculture who are knowledgeable on the topic.
 - Procurement, storage, and usage of pesticides: the project will not involve procurement of pesticides. That said, any pesticides currently used in the project areas would require proper storage and usage monitoring throughout the course of the project, and this responsibility will lie fully with FAO and/or contracted parties or executing entity. FAO and any executing entity should strictly follow the existing Kenya’s regulations as well as FAO pesticides guidance, particularly concerning transportation, storage, trans-boundary transportation of pesticides, and the safe use of pesticides.

- Continued monitoring of pesticide use: As part of the regular monitoring of project activity, the PMU safeguard specialist will delegate monitoring responsibilities to one member of the project team at the local level. These delegates will monitor changes in pesticides, insecticides and chemical fertilizers use in all project related activities. Programs and trainings will be specifically amended to address any such changes. Farmer groups and associations who are the project beneficiaries will engage in pest monitoring for instance in observing the pests in the farms, identifying weeds, and reporting as part of the surveillance to inform what sort of control measure to adopt. The farmer groups and associations will be trained on surveillance and best management practices in pesticide application and use.

Appendix 4: Chance Find Procedures

Chance find procedures shall be conducted in accordance with the following regulations: National Museum and Heritage Act (2006), IFC Performance Standard 7, and UNESCO 1972 World Heritage Convention. The following “*chance find*” procedures must be included in all third-party contracts (e.g. Letters of Agreement), in instances where the contracted party is assisting with implementation of Component 3 or Component 4:

If the Contractor discovers archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during project implementation, the Contractor shall:

- Stop the activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or the National Culture Administration take over;
- Notify the supervisory Safeguards Specialist within the PMU who, in turn, will notify the responsible local and provincial authorities immediately (within 24 hours or less);
- Responsible local and/or provincial authorities would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by government approved archeologists. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
- Decisions on how to handle the finding shall be taken by the responsible local and provincial authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage;
- Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities; and
- Project activities could resume only after permission is given from the responsible local or provincial authorities concerning safeguard of the heritage.

Note that the reporting of chance finds only occurs when an item/area/etc. of cultural significance is found, and is only carried out insofar as what is detailed above (i.e. reporting the find, reporting how the item/area will be treated moving forward). Reporting begins with the local level implementer (e.g. staff tasked to the implement the project within a specific project site) notifying the Safeguards Specialist, after which, the Safeguards Specialist guides the process according to the instructions above (e.g. notifying the relevant government authorities).

Appendix 5: ESMF budget and timeline

Position	Approximate Person Months	Cost	Observation
National Environmental and Social Safeguard Specialist (Based in Kenya Office)	42	\$ 216,000	Full Time
International Environmental and Social Safeguard Specialist	30 days per year	\$ 72,000	Part Time
National Monitoring and Evaluation Expert	72	\$ 368,856	Full Time
Local Travel	N-A	\$ 22,500	As needed
TOTAL	114	\$ 697,356	

NOTE: Additional costs related to the monitoring of environmental, social and gender policies are also included in various activities, as well as in the project's Monitoring, Evaluation and Learning plan. This includes the following, representing an additional budget of 400,000 USD:

Sub-activity 3.1.1.1, FPIC

Sub-activity 3.1.4.1 (training on SEAH, GBC, GAP and SEP)

Sub-activity 3.1.4.2 (training on women's leadership)

Sub-activity 3.1.4.3 (Monitoring gender and social inclusion objectives)

Appendix 6: FAO environmental and social risk identification – screening checklist

Every sub-activity will must undergo an initial screening, utilizing FAO's Safeguards Screening Checklist, found at the end of this Appendix and completed based on the initial project assessment. Based on the screening, sub-activities will be categorized as low, moderate, or high risk. Based on the screening, sub-activities will either be approved for implementation, or will be amended to meet the requirements detailed within this ESMF (specifically, all sub-activities must have low to-moderate impact; high risk sub activities will not be allowed under the project, nor will sub-activities which involve elements listed in the Appendix 1 Non-Eligibility List of this document).

Guidance and Examples for Sub-Activity Categorization

Categorization: To ensure that the extent of the review is commensurate with the nature of risk, categorization is a useful step in procedures where based on basic information about a project such as sector and scale, the level of E&S risk the project could pose is determined. This also enables the PMU Safeguards and Gender Specialists to determine the extent and sophistication of the E&S review required. Categorization may be low, moderate or high. For the purposes of this project, all sub-activities are expected to be Category B (Medium) or Category C (Low) risk. Category A sub-activities are perceived to have significant adverse environmental and/or social impacts, and are not permitted to form part of the target portfolio.

High Risk (Category A) Sub-Activity

The location of the farmers/project enterprise or activity may be:

- Near sensitive and valuable ecosystems, protected areas and habitat of endangered species;
- Near sensitive receptor such as hospital, school, temple, etc.;
- Near areas with archaeological and/or historic sites or existing cultural and social institutions;
- Near or in areas occupied by vulnerable ethnic minorities or indigenous peoples, or lands to which they are collectively attached, where negative impacts are expected and/or have not involved prior consultation;
- In densely populated areas, where resettlement may be required or potential pollution impacts and other disturbances may significantly affect communities;
- In regions where there are conflicts in natural resources allocation;
- Near watercourses, aquifer recharge areas or in reservoirs used for potable water supply; or in close proximity to lands or waters containing valuable resources.

Examples of sensitivity issues are those where the sub-activity can: i) Cause adverse global or regional environmental impacts; ii) Concern the rights of indigenous peoples or vulnerable ethnic minorities; iii) Require large scale land acquisition or subsequent change in land use that produces loss or damage of

assets or income for local residents; • Lead to involuntary settlements or displacement of people from their livelihoods; iv) Impact protected or otherwise recognized areas of high biodiversity or cultural value; v) Lead to toxic waste disposal and vi) Acquisition of small parcels of land, even if obtained on a negotiated basis with property owners or those with recognized rights to the land, should be considered as sensitive if expropriation or other compulsory measures would have resulted upon the failure of negotiation. Examples where the nature of the sub-activity may: i) Cause irreversible degradation or unsustainable exploitation of natural resources; or ii) Pose serious risks of significant harm to human health and safety. Examples of the magnitude of the sub-activity where: i) A high amount of scarce resources may be put at risk; ii) The timing and duration of the negative impacts are long; or iii) The cumulative effects of many similar, but individually small transactions together lead to serious impacts.

Medium Risk (Category B) Sub-Activity

Transactions with a limited number of potentially adverse environmental or social impacts that are generally site-specific, largely reversible, and readily addressed through mitigation measures that reduce the risk to moderate or low levels are normally classified as Category B.

The following characteristics indicate a Category B sub-activity:

- Environmental and social risks for the most part are mostly limited to and readily mitigated through application of good industry practice as described in relevant Environmental, Health and Safety Guidelines;

Guidelines

- Labour and working conditions will not include harmful child labour, involuntary or compulsory labour, or significant occupational health and safety issues;
- Significant land acquisition or significant land use change is not expected, nor is there expectation of displacement of people or significant loss of livelihoods due to project activities; and
- Socially or economically disadvantaged groups, such as tribal or ethnic groups or similar communities, are not known to occur in the project’s area of direct impact, nor does the activity involve use of lands to which they are collectively attached, or where those communities are present but consultation has indicated Free Prior and Informed Consent (FPIC).

Low Risk (Category C) Sub-Activity: Sub-activity proposals that are perceived to have minimal or no adverse environmental or social impacts are classified as Category C, and no further environmental or social assessment work needs to be done after initial screening and categorization.

First level questions

Question	YES	NO
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1	<p>Would this project:</p> <ul style="list-style-type: none"> • result in the degradation (biological or physical) of soils or undermine sustainable land management practices; or • include the development of a large irrigation scheme, dam construction, use of waste water or affect the quality of water; or • reduce the adaptive capacity to climate change or increase GHG emissions significantly; or • result in any changes to existing tenure rights¹ (formal and informal²) of individuals, communities or others to land, fishery and forest resources? 	X	
2	Would this project be executed in or around protected areas or natural habitats, decrease the biodiversity or alter the ecosystem functionality, use alien species, or use genetic resources?	X	
3	<p>Would this project:</p> <ul style="list-style-type: none"> • Introduce crops and varieties previously not grown, and/or; • Provide seeds/planting material for cultivation, and/or; • Involve the importing or transfer of seeds and or planting material for cultivation <u>or</u> research and development; • Supply or use modern biotechnologies or their products in crop production, and/or • Establish or manage planted forests? 	X	
4	Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system, or modify in any way the surrounding habitat or production system used by existing genetic resources?		X

5	<p>Would this project:</p> <ul style="list-style-type: none"> • result in the direct or indirect procurement, supply or use of pesticides³: <ul style="list-style-type: none"> ▪ on crops, livestock, aquaculture, forestry, household; or ▪ as seed/crop treatment in field or storage; or ▪ through input supply programmes including voucher schemes; or ▪ for small demonstration and research purposes; or ▪ for strategic stocks (locust) and emergencies; or ▪ causing adverse effects to health and/or environment; or • result in an increased use of pesticides in the project area as a result of production intensification; or • result in the management or disposal of pesticide waste and pesticide contaminated materials; or • result in violations of the Code of Conduct? 	X	
6	Would this project permanently or temporarily remove people from their homes or means of production/livelihood or restrict their access to their means of livelihood?		X
7	Would this project affect the current or future employment situation of the rural poor, and in particular the labour productivity, employability, labour conditions and rights at work of self-employed rural producers and other rural workers?	X	
8	Could this project risk overlooking existing gender inequalities in access to productive resources, goods, services, markets, decent employment and decision-making? For example, by not addressing existing discrimination against women and girls, or by not taking into account the different needs of men and women.	X	
9	<p>Would this project:</p> <ul style="list-style-type: none"> • have indigenous peoples* living outside the project area¹ where activities will take place; or • have indigenous peoples living in the project area where activities will take place; or • adversely or seriously affect on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (physical² and non-physical or intangible³) inside and/or outside the project area; or • be located in an area where cultural resources exist? 	X	

Second Level Questions

SAFEGUARD 1 NATURAL RESOURCES MANAGEMENT

Question	Management of soil and land resources	No	Yes	Comments
1.1	Would this project result in the degradation (biological or physical) of soils	LOW RISK	MODERATE RISK Demonstrate how the project applies and adheres to the principles of the World Soil Charter	<p>Moderate Risk</p> <p>The project promotes sustainable land, soil and water management to prevent or minimize land degradation, through erosion control, integrated nutrient management, management and restoration of soil, water and biological resources and maintenance of ecosystem services in close consultation with local land users.</p> <p>Activities to be implemented are known for generating a positive impact on biodiversity conservation (no net loss); are in line with the area's legal protection status and management objectives; and that are that previous consent has been obtained from indigenous peoples that rely or depend on these habitats. The project promotes the adoption of industry-specific best management practices as well as the integration of science and traditional knowledge in land management and biodiversity conservation strategies, in accordance with indigenous and local communities customs and traditions. [1] [SEP]</p>

1.2	Would this project undermine sustainable land management practices?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Low risk The project adopts an ecosystem-based adaptive approach, the activities and practices/technologies promoted by the project have demonstrated to have positive impact on the protection and conservation of biodiversity and the ecosystem, and on the restoration of ecosystem services; and on improving efficiency in the use of natural resources (water, land, soil, energy) through inclusive and participatory approach of women, man, youth, elders, PLWD and indigenous peoples.
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Management of water resources and small dams		No	Yes	Comments
1.3	Would this project develop an irrigation scheme that is more than 20 hectares or withdraws more than 1000 m3/day of water?	LOW RISK	MODERATE RISK Specify the following information: a) implementation of appropriate efficiency principles and options to enhance productivity, b) technically feasible water conservation measures, c) alternative water supplies, d) resource contamination mitigation or/and avoidance, e) potential impact on water users downstream, f) water use offsets and demand management options to maintain total demand for water resources within the	Moderate The project incorporates integrated water management approach, including water conservation measures, restoration of water catchment areas and watershed management; conservation and restoration of riparian zones; promoting water-saving irrigation technologies (drip irrigation, water-saving equipment, etc.); rehabilitation of existing irrigation schemes; promoting the rational use of industrial water (reuse, cascade use, water-saving processes and equipment); promote water and rainwater harvesting technologies/structure; and raising public awareness on efficient water use.

available supply.

g) The [ICID-checklist](#) will be included, as well as appropriate action within the project to mitigate identified potential negative impacts.

Projects aiming at improving water efficiency **will carry out thorough water accounting** in order to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream.

1.4	Would this project develop an irrigation scheme that is more than 100 hectares or withdraws more than 5000 m3/day of water?	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	<p>Moderate</p> <p>A ESIA will be carry out to identify any additional risk/impact related to the rehabilitation and establishment of irrigation systems. The ICID-checklist Will be included to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream. The project aims at increasing in 30% cultivates area under irrigation, using mainly water-saving irrigation technologies (e.g. drip irrigation).</p>
1.5	Would this project aim at improving an irrigation scheme (without expansion)?	LOW RISK	<p>MODERATE RISK</p> <p>The <u>ICID-checklist</u> will be included, as well as appropriate action within the project to mitigate identified potential negative impacts.</p> <p>Projects aiming at improving water efficiency <u>will carry out thorough water accounting</u> in order to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream.</p>	<p>Moderate risk</p> <p>The project support enhanced technologies to improve the efficiency and reduce impacts of irrigation including solar irrigation systems and smart irrigation systems (e.g., drip irrigation and ponds as well as rice -fish systems) and integrated water management approach including the use of alternative water supplies (e.g rainwater harvesting and storage) and reforestation of water catchment areas. ESIA/ESMP will be carried to carry water accounting and to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream.</p> <p>management within production areas (with</p>

				all systems utilizing dams under 5m5 m and not targeting areas over 20ha20 ha). All sub-activities proposed that will include specific irrigation actions will also be subject to a risk screening prior to implementation.
1.6	Would this project affect the quality of water either by the release of pollutants or by its use, thus affecting its characteristics (such as temperature, pH, DO, TSS or any other?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Moderate risk
1.7	Would this project include the usage of wastewater?	LOW RISK	MODERATE RISK Demonstrate how the project applies and adheres to applicable national guidelines or, if not available, the WHO/FAO/UNEP Guidelines on Safe Usage of Waste Water in Agriculture	Low Risk Project does not involve the use of wastewater for irrigation purposes, however it will ensure that wastewater that might be generated within the key VC (e.g coffee processing wastewater) is treated/manage and it complies with the biological, chemical and physical parameters for its discharge, as per Kenya legislation.
1.8	Would this project involve the construction or financing of a dam that is more than 15 m. in height?	LOW RISK	CANNOT PROCEED	Not applicable
1.9	Would this project involve the construction or financing of a dam	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Moderate: The project will support rainwater harvesting (RWH) structure to compensate for dry periods (external

	that is more than 5 m. in height?			cistern, small earth dams, ponds, water pans, wells,, that are 6-8 m-wide, and not more than 5m height. Other methods include contour bunds, pits, strip catchment, contour farming. Project will enforce occupational health and safety standards (OHS); conduct education and awareness raising with the local end-users regarding sanitation and health issues related to Water-borne and/or water related diseases; and on the use of small dams/water tanks or any water reservoir system shall be emphasizing for livestock and irrigation purposes (not as domestic water supply, this should be discourage
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Tenure		No	Yes	Comments
1.10	Would this project permanently or temporarily deny or restrict access to natural resources to which they have rights of access or use	LOW RISK	PROCEED TO NEXT Q	
	<p>Could this project result in any changes to existing <i>tenure rights</i>¹ (<i>formal and informal</i>)² of individuals, communities or others to land, fishery and forest resources?</p> <p>¹Tenure rights are rights to own, use or benefit from natural resources such as land, water bodies or forests</p> <p>²Socially or traditionally recognized tenure rights that are not defined in law may still be considered to be 'legitimate tenure rights'.</p>			
	1.10.1	<p>MODERATE RISK</p> <p>Demonstrate how the project applies and adheres to the principles/framework of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and</p>	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	<p>Moderate</p> <p>The project will implement FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forest (VGGT) in clarifying usufruct and tenure rights. Additionally, an environmental and social impact assessment will be carried out as part of the project development process.</p>

			Forests in the Context of National Food Security (VGGT)		
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	Climate	No	Yes	Comments
1.11	Could this project result in a reduction of the adaptive capacity to climate change for any stakeholders in the project area?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Low Risk The project aims at increasing the resilience of farmers and their communities under current and future climate risks.
1.12	Could this project result in a reduction of resilience against extreme weather events?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Low Risk Specifically, the project will: i) improve the adaptive capacity of smallholder farmers through increased access to climate resilient and low carbon technologies, market, finance, and social safety nets and risk sharing mechanisms by participating in organized farmer groups/cooperatives; ii) reduced exposure to climate hazards through improve access to water and watershed management, maintenance of soil cover, increased access to climate information services including Early warning; iii) improved levels of food and nutrition security through increased production of key crops and commodities that can either be directly consumed or sold.

1.13	Could this project result in a net increase of GHG emissions beyond those expected from increased production?	LOW RISK	PROCEED TO NEXT Q	Low Risk As per analysis conducted with Ex-Act Tool and Glead, the project activities will reduce GHG emissions. The project adopts technologies and practices that aim at increasing carbon sequestration and prohibits activities that may significantly increase GHG emissions (e.g. conversion of existing critical, natural or high conservation value habitat into agriculture, grazeland or forestry plantations);
1.13.1	Is the expected increase below the level specified by FAO guidance or national policy/law (whichever is more stringent)?	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	LOW RISK	
1.13.2	Is the expected increase above the level specified by FAO guidance or national policy/law (whichever is more stringent)?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

SAFEGUARD 2 BIODIVERSITY, ECOSYSTEMS AND NATURAL HABITATS

Protected areas, buffer zones or natural habitats	No	Yes	Comments
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2.1	Would this project be implemented within a legally designated protected area or its buffer zone?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Medium risk Some of the project activities could take place near or in the buffer zones of critical habitat or natural protected areas, however there are restrictions regarding the type of activities that can be financed/promoted by the project to avoid any potential significant adverse impact on biodiversity or habitats (refer to Appendix 1 Exclusion List). Activities to be taken within sensitive areas will be mainly related to the protection and conservation of biodiversity and the ecosystem and will be closely coordinated with local authorities and communities (multi stakeholder dialogues or FPIC); these activities include reforestation, conservation, restoration, afforestation, watershed management, forest landscape restoration and/or improved land management actions in degraded hotspots of 2,800 ha in selected agricultural landscapes targeted by this project, and in gazetted forests and reserves (10,000 ha) over the 6 years of project implementation. An environmental and social impact assessment will be carried out, describing the potential E&S risks and impacts, and the appropriate mitigation measures.
Biodiversity Conservation		No	Yes	Comments

2.2	Would this project change a natural ecosystem to an agricultural/aquacultural/forestry production unit with a reduced diversity of flora and fauna?	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	<p>Low Risk</p> <p>No land conversion of natural habitat to agriculture or grazeland/farmland will take place. Project aims at tackling some of the main aspects of climate and environmental degradation experienced in the counties. Agricultural and farming activities will take place specifically on areas designated for these purposes.</p>
2.3	Would this project increase the current impact on the surrounding environment for example by using more water, chemicals or machinery than previously?	LOW RISK	<p>MODERATE RISK</p> <p>Demonstrate in the project document what measures will be taken to minimize adverse impacts on the environment and ensure that implementation of these measures is reported in the risk log during progress reports.</p>	<p>Moderate Risk</p> <p>Though the project promotes IPM, agricultural intensification activities, through the promotion of climate-resilient agroforestry (particularly) and forestry production systems could indirectly contribute towards an increase in the use of certain pesticides, therefore the standard is triggered. Project increasing irrigation land promoting water conservation and efficiency through an integrated water management approach, including: water saving technologies such as drip irrigation, rainwater harvesting for irrigation, micro-catchment, pits, and the reforestation of watershed or catchment areas.</p>

Use of alien species		No	Yes	Comments
2.4	<p>Would this project use an alien species which has exhibited an invasive* behavior in the country or in other parts of the world or a species with unknown behavior?</p> <p>*An invasive alien species is defined by the Convention on Biological Diversity as “an alien species whose introduction and/or spread threaten biological diversity” (see https://www.cbd.int/invasive/terms.shtml).</p>	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	<p>Low Risk</p> <p>The project will work mainly with local/native breeds and species. The use of alien, invasive or non-native species is prohibited (refer to Appendix 1). Additionally, project will also follow international phytosanitary measures (biosecurity protocols) and good agricultural practices to prevent any accidental spread of non-invasive species.</p>

Access and benefit sharing for genetic resources		No	Yes	Comments
2.5	<p>Would this project involve access to genetic resources for their utilization and/or access to traditional knowledge associated with genetic resources that is held by indigenous, local communities and/or farmers?</p>	LOW RISK	<p>MODERATE RISK</p> <p>Ensure that the following issues are considered and appropriate action is taken. The issues identified and the action taken to address them must be included in the project document and reported on in progress reports.</p> <p>For plant genetic resources for food and agriculture (PGRFA) falling under the Multilateral</p>	<p>Moderate risk</p> <p>Project will use mainly native and local species/breeds that are widely used and known throughout the country. Project will work with indigenous and non-indigenous communities, and in the cases where indigenous groups are present or will directly participate in the project, FPIC will be conducted.</p> <p>FPIC or approval and involvement of indigenous and local communities will be required where genetic resources or associated traditional knowledge of indigenous and local communities are</p>

			<p>System of Access and Benefit-sharing (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty), ensure that Standard Material Transfer Agreement (SMTA) has been signed and comply with SMTA provisions.</p> <p>For genetic resources, other than PGRFA falling under the MLS of the Treaty:</p> <ol style="list-style-type: none"> 1. Ensure that, subject to domestic access and benefit-sharing legislation or other regulatory requirements, prior informed consent has been granted by the country providing the genetic resources that is the country of origin of the resources or that has acquired the resources in accordance with the Convention on Biological Diversity, unless otherwise determined by that country; and 2. Ensure that benefits arising from the utilization of the 	<p>accessed and used for the project. Any benefits arising from the utilization of traditional knowledge associated with genetic resources will be shared, upon mutually agreed terms, in a fair and equitable way with indigenous communities.</p>
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			<p>genetic resources as well as subsequent applications and commercialization are shared the country providing the genetic resources that is the country of origin of the resources or that has acquired the resources in accordance with the Convention on Biological Diversity; and</p> <p>3. Ensure that, in accordance with domestic law, prior informed consent or approval and involvements of indigenous and local communities is obtained for access to genetic resources where the indigenous and local communities have the established right to grant such resources; and</p> <p>4. Ensure that, in accordance with domestic legislation regarding the established rights of these indigenous and local communities over the genetic resources, are shared in a fair and equitable way with the communities concerned, based on mutually agreed terms</p>	
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			<p>For traditional knowledge associated with genetic resources that is held by indigenous and local communities:</p> <ol style="list-style-type: none"> 1. Ensure, in accordance with applicable domestic law, that knowledge is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that mutually agreed terms have been established; and 2. Ensure that, in accordance with domestic law, benefits arising from the utilization of traditional knowledge associated with genetic resources are shared, upon mutually agreed terms, in a fair and equitable way with indigenous and local communities holding such knowledge. <p>Ensure that the project is aligned with the Elements to Facilitate Domestic genetic Sharing for Different Subsectors of Genetic Resources for Food and Agriculture when it is the case</p>	
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SAFEGUARD 3 PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Introduce new crops and varieties		No	Yes	Comments
3.1	Would this project Introduce crops and varieties previously not grown?	LOW RISK	MODERATE RISK <ul style="list-style-type: none"> Follow appropriate phytosanitary protocols in accordance with IPPC Take measures to ensure that displaced varieties and/or crops, if any, are included in the national or international <i>ex situ</i> conservation programmes 	Moderate risk The project may introduce stress-tolerant and ecologically appropriate crop varieties that are currently not grown locally; for these cases, the project would undertake due diligence by consulting with the authority and best available science to determine their risks and mitigation measures. Any crop specie/variety has to be screened to ensure they will not out-competing with local/native species. The project will also follow international phytosanitary measures (biosecurity protocols) and good agricultural practices to prevent any accidental spread of non-invasive species. Any introductions of alien species will be subject to a risk assessment (as part of the client's environmental and social risks and impacts identification process) to determine the potential for invasive behavior

Provision of seeds and planting materials		No	Yes	Comments
3.2	Would this project provide seeds/planting material for cultivation?	LOW RISK	PROCEED TO NEXT Q	Yes

	3.2.1	Would this project involve the importing or transfer of seeds and/or planting materials for cultivation?	LOW RISK	<p>MODERATE RISK</p> <ul style="list-style-type: none"> • Avoid undermining local seed & planting material production and supply systems through the use of seed voucher schemes, for instance • Ensure that the seeds and planting materials are from locally adapted crops and varieties that are accepted by farmers and consumers • Ensure that the seeds and planting materials are free from pests and diseases according to agreed norms, especially the IPPC • Internal clearance from AGPMG is required for all procurement of seeds and planting materials. Clearance from AGPMC is required for chemical treatment of seeds and planting materials • Clarify that the seed or planting material can be legally used in the country to which it is being imported • Clarify whether seed saving is permitted under the country's existing laws and/or regulations and advise the counterparts 	<p>Low risk</p> <p>In coordination with the Ministry of Agriculture the project will seek native and local species to be used. Special considerations will be taken to diversify production, and promote the adoption of displaced varieties and/or crops (e.g. neglected and underutilized species). The project will only source seeds and planting stock from locally adapted stock and will ensure that seeds and planting materials are free from pests and disease. Improved seeds and genetic material will be primarily sourced from local or national markets where available, giving a priority to certified or registered inputs as per Kenya's Seeds and Plant Varieties Act</p>
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				<p>accordingly.</p> <ul style="list-style-type: none"> • Ensure, according to applicable national laws and/or regulations, that farmers' rights to PGRFA and over associated traditional knowledge are respected in the access to PGRFA and the sharing of the benefits accruing from their use. Refer to ESS9: Indigenous peoples and cultural heritage. 	
	3.2.2	Would this project involve the importing or transfer of seeds and/or planting materials for research and development?	LOW RISK	<p>MODERATE RISK</p> <p>Ensure compliance with Access and Benefit Sharing norms as stipulated in the International Treaty on Plant Genetic Resources for Food and Agriculture and the Nagoya Protocol of the Convention on Biodiversity as may be applicable. Refer also to ESS2: Biodiversity, Ecosystems and Natural Habitats.</p>	<p>Moderate risk</p> <p>The project aims mainly at using local and native genetic material (plant and animals), however in case where it deems necessary to import any planting material (e.g. drought resistant crops) from a neighboring country, it should be demonstrated that these planting/genetic material is free from pests and diseases according to agreed norms, especially the IPPC, to follow biosecurity protocols and to ensure that these species would do not compete with native species. Improved seeds and genetic material will be primarily sourced from local or national markets where available, giving a priority to certified or registered inputs as per Kenya's Seeds and Plant Varieties Act</p>

Modern biotechnologies and the deployment of their products in crop production		Comments	
		No	Yes
3.3	Would this project supply or use modern plant biotechnologies and their products?	LOW RISK	<p>MODERATE RISK</p> <ul style="list-style-type: none"> • Adhere to the Cartagena Protocol on Biosafety of the Convention on Biological Diversity to ensure the safe handling, transport and use of Living Modified Organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. • Adhere to biosafety requirements in the handling of Genetically Modified Organisms (GMOs) or Living Modified Organisms (LMOs) according to national legislation or⁴ • Take measures to prevent gene flow from the introduced varieties to existing ones and/or wild relatives
			<p>Low risk</p> <p>The project will not use modern plant biotechnologies, nor genetically or living modified organisms (Refer to Appendix 1). The Project will mainly use local/native varieties.</p>

Planted forests		No	Yes	Comments
3.4	Would this project establish or manage planted forests?	LOW RISK	MODERATE RISK <ul style="list-style-type: none"> Adhere to existing national forest policies, forest programmes or equivalent strategies. The observance of principles 9, 10, 11 and 12 of the Voluntary Guidelines on Planted Forests suffice for indigenous forests but must be read in full compliance with ESS 9- Indigenous Peoples and Cultural Heritage. Planners and managers must incorporate conservation of biological diversity as fundamental in their planning, management, utilization and monitoring of planted forest resources. In order to reduce the environmental risk, incidence and impact of abiotic and biotic damaging agents and to maintain and improve planted forest health and productivity, FAO will work together with stakeholders to develop and derive appropriate 	Moderate risk The project will support the rehabilitation and reforestation activities with a focus on planting native/local species as well as small-scale sustainable agroforestry (e.g., woodlots, silviculture, restoration of water catchments and watershed management. These activities are aligned with the Restoration Initiative ²¹⁹ which supported the Kenya Forest Service in the development of the National Forest and Landscape Restoration Plan (FOLAREP).

²¹⁹ Restoration of arid and semi-arid lands (ASAL) of Kenya through bio-enterprise development and other incentives under The Restoration Initiative, a GEF-supported initiative.

			and efficient response options in planted forest management	
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SAFEGUARD 4 ANIMAL (LIVESTOCK AND AQUATIC) GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Introduce new species/breeds and change in the production system of locally adapted breeds		No	Yes	Comments
4.1	Would this project introduce non-native or non- locally adapted species, breeds, genotypes or other genetic material to an area or production system?	LOW RISK	PROCEED TO NEXT Q	Low risk No, the project will work with local or native species, breeds and genotypes. The project will not project introduce genetically altered organisms, nor will it introduce or use experimental genetic

					technologies (refer to Appendix 1)
	4.1.1	Would this project foresee an increase in production by at least 30% (due to the introduction) relative to currently available locally adapted breeds and can monitor production performance?	CANNOT PROCEED	LOW RISK	
	4.1.2	Would this project introduce genetically altered organisms, e.g. through selective breeding, chromosome set manipulation, hybridization, genome editing or gene transfer and/or introduce or use experimental genetic technologies, e.g. genetic engineering and gene transfer, or the products of those technologies?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
4.2	Would this project introduce a non-native or non- locally adapted species or breed for the first time into a country or production system?		LOW RISK	MODERATE RISK A genetic impact assessment should be conducted prior to granting permission to import (cover the animal identification, performance recording and capacity development that allow	Low Risk. The project will work with local or native species, breeds and genotypes. No introduction of exotic or non-native breed/species will take place.

			<p>monitoring of the introduced species/breeds' Productivity, health and economic sustainability over several production cycles)</p> <ul style="list-style-type: none"> • http://www.fao.org/docrep/012/i0970e/i0970e00.htm • ftp://ftp.fao.org/docrep/fao/012/i0970e/i0970e03.pdf 	
4.3	Would this project introduce a non-native or non- locally adapted species or breed, independent whether it already exists in the country?	LOW RISK	<p>MODERATE RISK</p> <ul style="list-style-type: none"> • If the project imports or promotes species/breeds with higher performance than locally adapted ones, ensure: feed resources, health management, farm management capacity, input supply and farmer organization to allow the new species/breeds to express their genetic potential • Follow the OIE terrestrial or aquatic code to ensure 	<p>Moderate risk</p> <p>The project will work closely with the State Department of Livestock under the Ministry of Agriculture, Livestock, Fisheries and Cooperatives to promote the use of existence of local and native species (mainly indigenous breeds). In case that there is a need to import climate resilient genetic material from neighbourign countries, genetic impact assessment should be conducted and appropriate health protocols including quarantine measures should be implemented.</p> <p>Capacity building activities will addrees proper husbandry of the breed, animal welfare and animal identification and performance record keeping.</p>

			<p>the introduced species/breed does not carry different diseases than the local ones</p> <ul style="list-style-type: none"> • Include a health risk assessment and farmer/veterinary capacity development in the project to ensure the introduced species/breed do not have different susceptibility to local diseases including ecto- and endo-parasites than the locally adapted/native species/breeds 	
4.4	<p>Would this project ensure there is no spread of the introduced genetic material into other production systems (i.e. indiscriminate crossbreeding with locally adapted species/breeds)?</p>	<p>MODERATE RISK</p> <p>Introduce a) animal identification and recording mechanism in the project and b) develop new or amend existing livestock policy and National Strategy and Action Plan for AnGR</p>	<p>LOW RISK</p>	<p>Low risk</p> <p>Project will work mostly with native or indigenous breeds, adapted to the country's conditions. In cooperation with the County veterinary services and FFS, the project will assist cooperatives and FO in monitoring animal health and to transmit this information to county governments,</p>

Collection of wild genetic resources for farming systems		No	Yes	Comments
4.5	Would this project collect living material from the wild, e.g. for breeding, or juveniles and eggs for on-growing?	LOW RISK	MODERATE RISK Guidance to be provided	Low Risk. The project will not collect or use living material from the wild, e.g. for breeding, or juveniles and eggs for on-growing.
Modification of habitats		No	Yes	Comments
4.6	Would this project modify the surrounding habitat or production system used by existing genetic resources?	LOW RISK	MODERATE RISK Guidance to be provided	Low risk The project seeks to implement reforestation, conservation, restoration, afforestation, watershed management, forest landscape restoration and/or improved land management actions in degraded landscapes. Thorough the practices and technologies promoted by the project positive changes are expected in the selected landscapes. Project will ensure that all the project uses native and local species (exotic, non-native species are part of the project Exclusion List – Appendix 1).
4.7	Would this project be located in or near an internationally recognized conservation area e.g. Ramsar or World Heritage Site, or other nationally important habitat, e.g. national park or high nature value farmland?	LOW RISK	MODERATE RISK Guidance to be provided	Moderate The project activities could take place near internationally recognized conservation or nationally important habitat. All actions within these areas will focus on rehabilitation of natural habitat and support to pre-existing and legally permitted agriculture within areas to enhance sustainability and reduce impacts. The project adopts an ecosystem-based adaptive

				<p>approach, the activities and practices/technologies promoted by the project have demonstrated to have positive impact on the protection and conservation of biodiversity and the ecosystem, and on the restoration of ecosystem services. Rehabilitation or upgrade of cooperative infrastructure such as storage facilities, shelters, barns, and hatcheries, among others are prohibited in critical areas, national parks or areas of high biodiversity.</p> <p>All activities will be closely coordinated with local county offices, and with the local communities, FOs to ensure a participatory and inclusive approach. FPIC will be obtained from indigenous communities to ensure that project activities are aligned with their needs and to address their concerns.</p>
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4.8	AQGR	Would this project block or create migration routes for aquatic species?	LOW RISK	MODERATE RISK Guidance to be provided	Not applicable
4.9		Would this project change the water quality and quantity in the project area or areas connected to it?	LOW RISK	MODERATE RISK Guidance to be provided	<p>Moderate</p> <p>Project activities could affect water quality in case that CRLCSA practices including Integrated Pest Management are not fully adopted by farmers and FOs. With the support of local authorities, regular monitoring of main superficial water sources will take place (this will be addressed more in detailed within the project ESMP). The project incorporates integrated water management approach, including water conservation measures, restoration of water catchment areas and watershed management; conservation and</p>

				restoration of riparian zones; promoting water-saving irrigation technologies (drip irrigation, water-saving equipment, etc.); rehabilitation of existing irrigation schemes; promoting the rational use of industrial water (reuse, cascade use, water-saving processes and equipment); promote water and rainwater harvesting technologies/structure; and raising public awareness on efficient water use.
4.10	Would this project cause major habitat / production system changes that promote new or unknown chances for geneflow, e.g. connecting geographically distinct ecosystems or water bodies; or would it disrupt habitats or migration routes and the genetic structure of valuable or locally adapted species/stocks/breeds?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Low risk The project will not disrupt habitats or migration routes, the project will not support activities that imply the fencing in protected or animal migration routes. Neither will the project disrupt the genetic structure of valuable or locally adapted species/stocks/breeds, as it promotes mainly the use of this local and native species. Special attention will be placed in ensuring that any specie or breed that that use/adopted by the project does not compete with local species, a genetic impact assessment should be conducted and appropriate health protocols including quarantine measures.
4.11	Would this project involve the intensification of production systems that leads to land- use changes (e.g. deforestation), higher nutrient inputs leading to soil or water pollution, changes of water regimes (drainage, irrigation)?	LOW RISK	MODERATE RISK Guidance to be provided	Moderate risk The project will promote sustainable intensification, balancing the demands of the growing agri-food sector in terms of water, energy, and land, with the need to sustain ecosystem services for future generations throughout the broader landscape. This project will promote

				<p>practices that increase production and productivity without further land expansion, while restoring or rehabilitating ecosystem services in the current agricultural land. Sustainable intensification offers the opportunity to increase net carbon sinks in soils and agricultural landscapes, and to reduce the emissions intensity per output produced. No land conversion of natural habitat to agriculture or grazeland will take place, the project will not result in increases in areas under cultivation within protected areas</p>
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SAFEGUARD 5 PEST AND PESTICIDE MANAGEMENT

Supply of pesticides by FAO		No	Yes	Comments
5.1	Would this project procure, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	LOW RISK	<p>MODERATE RISK</p> <ul style="list-style-type: none"> • Preference must always be given to sustainable pest management approaches such as Integrated Pest Management (IPM), the use of ecological pest management approaches and the use of mechanical/cultural/physical or biological pest control tools in favour of synthetic chemicals; and preventive measures and monitoring, • When no viable alternative to the use of chemical pesticides exists, the selection and procurement of pesticides is subject to an internal clearance procedure http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/E_SS5_pesticide_checklist.pdf • The criteria specified in FAO's ESM Guidelines under ESS5 must be adhered to and should be included or referenced in the project document. • If large volumes (above 1,000 litres of kg) of pesticides will be supplied or used throughout the duration of the project, a Pest Management Plan must be prepared to 	<p>Moderate risk.</p> <p>The project does not involve direct procurement or supply pesticides to farmers/FO. The project promotes Integrated Pest Management and aims at reducing the dependence on the use of pesticides and agrochemicals. Nevertheless, in some cases the use of agrochemicals (including pesticides on crops, livestock) could be necessary. For this the project ESMF includes Pest and pesticide management guidelines. An ESIA/ESMP will be conducted to ensure risk are properly identify and mitigation measures are implemented and monitored.</p>

			<p>demonstrate how IPM will be promoted to reduce reliance on pesticides, and what measures will be taken to minimize risks of pesticide use.</p> <ul style="list-style-type: none"> • It must be clarified, which person(s) within (executing) involved institution/s, will be responsible and liable for the proper storage, transport, distribution and use of the products concerned in compliance with the requirements. 	
5.2	Would this project provide seeds or other materials treated with pesticides (in the field and/or in storage) ?	LOW RISK	<p>MODERATE RISK</p> <p>The use of chemical pesticides for seed treatment or storage of harvested produce is subject to an internal clearance procedure [http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/ESS5_pesticide_checklist.pdf]. The criteria specified in FAO's ESM Guidelines under ESS5 for both pesticide supply and seed treatment must be adhered to and should be included or referenced in the project document.</p>	<p>Low risk</p> <p>The project adopts Integrated Pest Management (IPM), Appendix 3 provide the Guidance for Pest and Pesticide Management, consistently with FAO E&S safeguards, to mitigate risk related to providing seeds or other materials treated with pesticides. Project will ensure that appropriate capacity buildings are carried out on the proper use, management, storage and disposal of pesticides following FAO guidelines for pesticides (e.g. International Code of Conduct on Pesticides). Refer to Appendix 3.</p>

5.3	Would this project provide inputs to farmers directly or through voucher schemes?	LOW RISK	<p>MODERATE RISK</p> <ul style="list-style-type: none"> • FAO projects must not be responsible for exposing people or the environment to risks from pesticides. The types and quantities of pesticides and the associated application and protective equipment that users of a voucher scheme are provided with must always comply with the conditions laid out in ESS5 and be subject to the internal clearance procedure [link]. These must be included or referenced in the project document. • Preference must always be given to sustainable pest management approaches such as Integrated Pest Management (IPM), the use of ecological pest management approaches and the use of mechanical or biological pest control tools in favour of synthetic chemicals 	<p>Moderate risk</p> <p>FAO will work together with the Ministry of Agriculture & Livestock and the project Executing Entities to ensure all seedling and planting materials are free from pests, adapted to the needs of the farmers, the environment and climate conditions. The project promotes IPM, and several CRLCSA practices and technologies aiming at reducing the dependence and use of chemical fertilizers and pesticides. Appendix 3 of the ESMF provides guidelines for pest and pest management.</p>
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5.4	Would this project lead to increased use of pesticides through intensification or expansion of production?	LOW RISK	<p>MODERATE RISK</p> <p>Encourage stakeholders to develop a Pest Management Plan to demonstrate how IPM will be promoted to reduce reliance on pesticides, and what measures will be taken to minimize risks of pesticide use. This should be part of the sustainability plan for the project to prevent or mitigate other adverse environmental and social impacts resulting from production intensification.</p>	<p>Moderate risk</p> <p>Indirectly, activities could lead to an increase used of pesticides in the area through intensification. However, the project adopts Integrated Pest Management, additionally several CRLCSA practices and technologies promoted aims at reducing the depended of chemical fertilizers and pesticides, and to promote the elaboration and use of biopesticides or biological pest control. Additionally, considering that not farmers may shift towards this practices, training and capacity building activities will take place to improve the knowledge and skill on the appropriate use, management, storage and disposal of agrochemicals. The project is consistent with the following guidelines:</p> <ul style="list-style-type: none"> • International Code of Conduct on Pesticide Management. Guidelines for personal protection when handling and applying pesticides • ESS related to Pest and Pesticide Management
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5.5	Would this project manage or dispose of waste pesticides, obsolete pesticides or pesticide contaminated waste materials?	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required.</p> <p>Please contact the ESM unit for further guidance.</p>	<p>Low risk</p> <p>Project does not promote the purchase or use pesticides. However, considering that indirectly an increase in the use of pesticides (due to intensification of activities) could happen as part of capacity building activities, stakeholders will be trained on the correct use, management, and disposal of different pesticides wastes, according to international norms/standards.</p>
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SAFEGUARD 6 INVOLUNTARY RESETTLEMENT AND DISPLACEMENT

		No	Yes	Comments
6.1	<p>Would this removal* be voluntary?</p> <p>*temporary or permanent removal of people from their homes or means of production/livelihood or restrict their access to their means of livelihoods</p>	CANNOT PROCEED	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required.</p> <p>Please contact the ESM unit for further guidance.</p>	<p>Moderate risk</p> <p>The project activities will not lead to involuntary resettlement or displacement of people or communities; resources from the project will not be used for land acquisition (refer to Appendix 1 - Exclusion List). However, some of the project activities could affect IPs and their livelihood (e.g. loss of access to grazing land, interference with pastoralist livelihood), if these groups are excluded from planning and decision making-processes (e.g. indigenous groups are represented in project main Committees).</p>

				No set aside land or additional conservation areas (e.g. national park) will be established as part of the project. Reforestation/rehabilitation areas will take place mainly on public or community land (executed by county administrations) or interventions on private land (executed by communities with funding from counties) and will focus on areas where such interventions can facilitate or leverage improved productivity through ecosystem services. Proposed activities will mostly imply the involvement of communities on a purely voluntary and demand-driven basis. All project activities will be subject to E&S Screening to ensure no displacement/resettlement takes place.
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SAFEGUARD 7 DECENT WORK

		No	Yes	Comments
7.1	Would this project displace jobs? (e.g. because of sectoral restructuring or occupational shifts)	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Low risk. Although no negative impacts are projected, an environmental and social impact assessment will be carried out to ensure this. The project will promote opportunities to increase human capital and skills development through technical and vocational education and training (e.g. Farmers Field Schools, promote entrepreneurship and support the growth and consolidation of FOs.

7.2	Would this project operate in sectors or value chains that are dominated by subsistence producers and other vulnerable informal agricultural workers, and more generally characterized by high levels “working poverty”?	LOW RISK	<p>MODERATE RISK</p> <p>Take action to anticipate the likely risk of perpetuating poverty and inequality in socially unsustainable agriculture and food systems. Decent work and productive employment should appear among the priorities of the project or, alternatively, the project should establish synergies with specific employment and social protection programmes e.g. favoring access to some social protection scheme or form of social insurance. Specific measures and mechanisms should be introduced to empower in particular the most vulnerable /disadvantaged categories of rural workers such as small- scale producers, contributing family workers, subsistence farmers, agricultural informal wage workers, with a special attention to women and youth who are predominantly found in these employment statuses. An age- and gender-sensitive social value chain analysis or livelihoods/employment assessment is needed for large-scale</p>	<p>Moderate risk</p> <p>The project works in value chains that are dominated by subsistence producers and other vulnerable informal agricultural workers. The project promotes decent working conditions ensuring awareness on health, safety and occupational risk related with main value chains. The project will ensure training and capacity building activities to enhance the farmers skills and to empower women, PLWD, youth and indigenous peoples. Additionally, an environmental and social impact assessment will be carried out to ensure that there are no such risks and if there are, appropriate strategies will be proposed.</p>

			projects.	
7.3	Would this project operate in situations where youth work mostly as unpaid contributing family workers, lack access to decent jobs and are increasingly abandoning agriculture and rural areas?	LOW RISK	<p>MODERATE RISK</p> <p>Take action to anticipate likely risk of unsustainably ageing agriculture and food systems by integrating specific measures to support youth empowerment and employment in agriculture. A youth livelihoods/employment assessment is needed. Complementary measures should be included aiming at training youth, engaging them and their associations in the value chain, facilitating their access to productive resources, credit and markets, and stimulating youth- friendly business development services.</p>	<p>Low risk</p> <p>The project activities will focus on engagement with existing agricultural cooperatives and farmers organizations to support the adoption of market sustainability standards that promote fair work throughout the key value chains. Youth involvement in decision-making processes and empowerment (e.g leadership roles within Cooperatives and FOs, trainings), and intergeneration knowledge transmission are an integral part of the project. The project will generate knowledge on rural youth financial inclusion, youth opportunities in selected value chains, and rural youth's access to information and productive resources. The project focus on social inclusion of marginalized groups including male and female youth and establishes a target of participation</p>
7.4	Would this project operate in situations where major gender inequality in the labour market prevails? (e.g. where women tend to work predominantly as unpaid contributing family members or subsistence farmers, have lower skills and qualifications,	LOW RISK	<p>MODERATE RISK</p> <p>Take action to anticipate likely risk of socially unsustainable agriculture and food systems by integrating specific measures to reduce gender inequalities and promote rural women's social and economic empowerment. A specific social value chain analysis or livelihoods/employment</p>	<p>Moderate risk</p> <p>There are several knowledge and resources gaps between man and women, together with socio-cultural norms that assign gendered responsibility to certain agricultural activities and value chains as being "for men or for women". A Gender Assessment and Action Plan has been elaborated taking into account these differences and establishing specific, goals and indicators to ensure that these gaps are addressed by the project. The Project Gender Action plan includes measures to support women to</p>

	lower productivity and wages, less representation and voice in producers' and workers' organizations, more precarious contracts and higher informality rates, etc.)		assessment is needed for large-scale projects. Facilitation should be provided for women of all ages to access productive resources (including land), credit, markets and marketing channels, education and TVET, technology, collective action or mentorship. Provisions for maternity protection, including child care facilities, should be foreseen to favour women participation and anticipate potential negative effects on child labour, increased workloads for women, and health related risks for pregnant and breastfeeding women.	access productive resources, credit, markets and marketing channels, education , technology, collective action or mentorship and increase participation of women in decision-making process and within key positions in the cooperatives and FOs.
7.5	Would this project operate in areas or value chains with presence of labour migrants or that could potentially attract labour migrants?	LOW RISK	MODERATE RISK Take action to anticipate potential discrimination against migrant workers, and to ensure their rights are adequately protected, with specific attention to different groups like youth, women and men.	Low risk Some of the project areas could be inhabit by migrants, through the ESIA the project will identify migrant workers and ensure that they are engaged on substantially equivalent terms and conditions to non-migrant workers carrying out similar work.
7.6	Would this project directly employ workers?	LOW RISK	MODERATE RISK FAO projects will supposedly guarantee employees' rights as per UN/FAO standards as regards information on workers' rights, regularity of payments, etc. Decisions relating to the recruitment	Low risk A small project implementation unit will be set to support implementation, monitoring supervision and reporting of project performance. Hiring and employment conditions (PMU, consultants and contractors) will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination. Additionally, as part of the capacity

			<p>of project workers are supposed to follow standard UN practices and therefore not be made on the basis of personal characteristics unrelated to inherent job requirements. The employment of project workers will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, etc.</p>	<p>building activities Occupational, Health and Safety guidelines/measures will be set in place (include national and international labour standards), to prevent and protect workers from work related risks & hazards, e.g awareness raising and capacity development activities on OHS. Project level GRM will also be established and disclosed</p>
7.7	Would this project involve sub-contracting?	LOW RISK	<p>MODERATE RISK</p> <p>Take action to anticipate likely risk of perpetuating inequality and labour rights violations by introducing complementary measures. FAO projects involving sub-contracting should promote, to the extent possible, subcontracting to local entrepreneurs – particularly to rural women and youth – to maximize employment creation under decent working conditions. Also, FAO should monitor and eventually support contractors to fulfil the standards of</p>	<p>Low risk</p> <p>The project implementing and executing entities will comply with FAO ESS, and will participate in capacity building activities to ensure compliance with “ESS4 Decent Work” and apply occupation safety and health measures. All employment relationships established will be based on the principle of equal opportunity and fair treatment and will not discriminate with respect to any aspect of employment.</p>

			performance and quality, taking into account national and international social and labour standards.	
7.8	Would this project operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks ⁵ ?	LOW RISK	<p>MODERATE RISK</p> <p>Take action to anticipate likely OSH risks by introducing complementary provisions on OSH within the project. Project should ensure all workers' safety and health by adopting minimum OSH measures and contributing to improve capacities and mechanisms in place for OSH in informal agriculture and related occupations. For example, by undertaking a simple health and safety risk assessment, and supporting implementation of the identified risk control measures. Awareness raising and capacity development activities on the needed gender-responsive OSH measures should be included in project design to ensure workers' safety and health, including for informal workers. Complementary measures can include measures to reduce risks and protect workers, as well as children working or playing on the farm, such as alternatives to pesticides, improved handling and storage of pesticides, etc.</p>	<p>Moderate risk</p> <p>An ESIA/ESMP will be carried, including additional health and safety risk assessment for key value chains (including inspections and monitoring) . ESMF identified some of the risk related to the production of annual & perennial crops, poultry & livestock production, as well as dairy and meat processing. Additionally, the project promotes good industry practices, and Integrates agroforestry and agroecology practices along with Integrated Pest Management (IPM) to reduce the dependence of agrochemicals. Special care will be taken to raise awareness on pesticide use and the impact on wome.</p>

			Specific provisions for OSH for pregnant and breastfeeding women should be introduced. FAO will undertake periodic inspections and a multistakeholder mechanism for monitoring should be put in place.	
7.9	Would this project provide or promote technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Low risk Technologies and practices promoted by the project are mostly good industry practices, additionally, project will invest in developing the capacities and skills to safely adopt these technologies in an inclusive manner. ESIA will be carried to ensure mitigation measures are identified for any additional risk related to OHS along with risks.
7.10	Would this project foresee that children <u>below</u> the nationally-defined minimum employment age (usually 14 or 15 years old) will be involved in project-supported activities?	LOW RISK	CANNOT PROCEED	Low risk The project will ensure that children under aged are not employed, adequate and verifiable mechanisms for age verification in recruitment procedures will be set to ensure children under the age of 18 should not be engaged in work-related activities that are likely to be hazardous or interfere with their compulsory child's education or be harmful to the child's health, safety or morals. Project promotes labour-saving technologies and practices (e.g. <i>conservation agriculture, conservation tillage, cover crops</i>) that can improve labour productivity and enable families to be less reliant on the labour of their children ²²⁰

²²⁰ FAO Framework on ending child labor in agriculture. https://fscluster.org/sites/default/files/documents/fao_child.labour.pdf

7.11	Would this project foresee that children <u>above</u> the nationally-defined minimum employment age (usually 14 or 15 years old), but under the age of 18 will be involved in project-supported activities?	LOW RISK	<p>MODERATE RISK</p> <p>Take action to anticipate likely risk of engaging young people aged 14-17 in child labour⁶ by changing design or introducing complementary measures. For children of 14 to 17 years, the possibility to complement education with skills-training and work is certainly important for facilitating their integration in the rural labour market. Yet, children under the age of 18 should not be engaged in work-related activities in connection with the project in a manner that is likely to be hazardous or interfere with their compulsory child's education or be harmful to the child's health, safety or morals. Where children under the age of 18 may be engaged in work-related activities in connection with the project, an appropriate risk assessment will be conducted, together with regular monitoring of health, working conditions and hours of work, in addition to the other requirement of this ESS. Specific protection measures should be undertaken to prevent any form of sexual harassment or exploitation at work place (including on the way to and from),</p>	<p>Moderate</p> <p>Due to country context, youth and children often assist with the farming work of their respective families, and there is a risk that these youngsters might work beyond what is age-appropriate (unless closely monitored). Though improve and inclusive Extension Services, FFS and FOs, as well as regular capacity building activities, the project will conduct sensitization training on safe, decent rural employment and age-appropriate work, given that youth often assist with the farming work. Additionally, decent work standards and enforce occupational, health and safety guidelines will be promoted. Adequate and verifiable mechanisms for age verification in recruitment procedures will be set to ensure children under the age of 18 should not be engaged in work-related activities that are likely to be hazardous or interfere with their compulsory child's education or be harmful to the child's health, safety or morals. When it comes to child labour issues, it is important to have a clear understanding of what constitutes child labour as opposed to indigenous traditions of engaging children in certain tasks.</p>
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			particularly those more vulnerable, i.e. girls.	
	Would this project operate in a value chain where there have been reports of child labour?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Moderate Due to country context, youth and children often assist with the farming work of their respective families, and there is a risk that these youngsters might work beyond what is age-appropriate (unless closely monitored). Project will conduct sensitization training on safe, decent rural employment and age-appropriate work, given that youth often assist with the farming work. Additionally, decent work standards and enforce occupational, health and safety guidelines will be promoted. Adequate and verifiable mechanisms for age verification in recruitment procedures will be set to ensure children under the age of 18 do not be engaged in work-related activities that are likely to be hazardous or interfere with their compulsory child's education or be harmful to the child's health, safety or morals. ESIA will be carried to identify additional potential social risks along with measures to mitigate, monitor and manage identified impacts.
	Would this project operate in a value chain or sector where there have been reports of	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	Low Project will work mostly with smallholders and family farmers characterized by family-focused motives such as favouring the stability of the farm household system, using mainly family labour for production and using part of the produce for family consumption. Furthermore, certification schemes (e.g., Fair trade & Rainforest Alliance) which follow good agriculture practices, which prohibits child labour as defined by

	forced labour ²²¹ ?			ILO minimum age and the worst forms of child labour conventions. ESIA will be carried to identify additional potential social risks along with measures to mitigate, monitor and manage identified impacts
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SAFEGUARD 8 GENDER EQUALITY

		No	Yes	Comments
8.1	Could this project risk reinforcing existing gender-based discrimination, by not taking into account the specific needs and priorities of women and girls?	LOW RISK	MODERATE RISK Take action to anticipate likely risk of perpetuating or reinforcing inequality by conducting a gender analysis to identify specific measures to avoid doing harm, provide equal opportunities to men and women, and promote the empowerment of women and girls.	Moderate risk A Gender Assessment and Action Plan has been prepared to ensure that the project does not exacerbate existing gender-based discriminations. Additionally, key indicators of the project are gender disaggregated additional information is found on GAP.
			MODERATE RISK	Low risk

²²¹ Forced labour is employed, consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. It includes men, women and children in situations of debt bondage, suffering slavery-like conditions or who have been trafficked. "In many countries, agricultural work is largely informal, and legal protection of workers is weak. In South Asia, there is still evidence of bonded labour in agriculture, resulting in labour arrangements where landless workers are trapped into exploitative and coercive working conditions in exchange for a loan. The low wages associated with high interest rates make it quite difficult for whole families to escape this vicious circle. In Africa, the traditional forms of "vestiges of slavery" are still prevalent in some countries, leading to situations where whole families (adults and children, men and women) are forced to work the fields of landowners in exchange for food and housing. In Latin America, the case of workers recruited in poor areas and sent to work on plantations or in logging camps has been widely documented by national inspection services and other actors." (ILO, Profits and poverty: the economics of forced labour / International Labour Office. - Geneva: ILO, 2014)

8.2	Could this project not target the different needs and priorities of women and men in terms of access to services, assets, resources, markets, and decent employment and decision- making?	LOW RISK	Take action to anticipate likely risk of socially unsustainable agriculture practices and food systems by conducting a gender analysis to identify the specific needs and priorities of men and women, and the constraints they may face to fully participate in or benefit from project activities, and design specific measures to ensure women and men have equitable access to productive resources and inputs.	A Gender Assessment has been conducted to consider the different needs and priorities of women and men. The project aims at targeting 50/50 men and women and will implement different measures to promote women participation in decision-making processes and throughout project life cycle. Refer to the Gender Assessment and Action Plan (Funding Proposal Annex 8).
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SAFEGUARD 9 INDIGENOUS PEOPLES AND CULTURAL HERITAGE

		No	Yes	Comments
9.1	Are there <i>indigenous peoples*</i> living outside the project area** where activities will take place? ⁸	LOW RISK	GO TO NEXT QUESTION	Yes
	9.1.1 Do the project activities influence the Indigenous Peoples living outside the project area?	LOW RISK	MODERATE RISK A Free, Prior and Informed Consent Process is required Project activities should outline actions to address and mitigate any potential impact Please contact the ESM/OPCA unit for further guidance.	Moderate risk FPIC will be carried out before any project activity is implemented, and it will consider the active participation of indigenous peoples living in the project area, as well as those indigenous peoples (nomadic pastors and hunter gatherers that depend on the resources of the project area of influence). Some of the project activities could affect IPs and their livelihood (e.g., loss of access to grazing land, interference with pastoralist livelihood), if these groups are excluded from planning and decision-making processes (e.g. indigenous groups are

				<p>represented in project main Committees). Any involuntary restrictions on land use and access to natural resources is subject to traditional ownership or under customary use (under Output 2) and will be addressed by ensuring IPs rights are respected and that they are involved in the development, implementation, and monitoring of the project and in the decision-making processes.</p> <p>The project activities will not lead to involuntary resettlement or displacement of people or communities; resources from the project will not be used for land acquisition or resources (refer to Appendix 1 - Exclusion List). All project activities will be subject to E&S Screening to ensure no displacement/resettlement takes place.</p>
9.2	Are there indigenous peoples living in the project area where activities will take place?	LOW RISK	<p>MODERATE RISK</p> <p>A Free Prior and Informed Consent process is required. If the project is for indigenous peoples, an Indigenous Peoples' Plan is required in addition to the Free Prior and Informed Consent process.</p> <p>Please contact the ESM/OPCA unit for further guidance. In cases where the project is for both, indigenous and non-indigenous peoples, an Indigenous Peoples' Plan will be required only if a</p>	<p>Moderate risk</p> <p>There are several indigenous communities (e.g., nomadic herders and hunter gatherers) in the project area, these include communities who live in the counties, as well as those nomadic and semi-nomadic herders/hunter gatherers who seasonally migrate over relatively short distances, and whose attachment to ancestral territories may be periodic, seasonal, or cyclic in nature. Proposed activities will mostly imply the involvement of communities on a purely voluntary and demand-driven basis.</p> <p>FPIC will be carried out before any project activity is implemented following FAO E&S guidelines and standards, with the support of</p>

			<p>substantial number of beneficiaries are Indigenous Peoples. project activities should outline actions to address and mitigate any potential impact.</p> <p>Please contact ESM/OPCA unit for further guidance. A Free, Prior and Informed Consent Process is required</p>	<p>FAO ESM/OPCA Unit. Based on the results of the FPIC, and IPP could be required for certain project activities or in certain counties (upon selection if targeted sites).</p>
9.3	<p>Would this project adversely or seriously affect on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (<i>physical*</i> and <i>non-physical or intangible**</i>) inside and/or outside the project area?</p> <p><i>*Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater.</i></p> <p><i>**Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the</i></p>	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required.</p> <p>Please contact the ESM unit for further guidance.</p>	<p>Moderate</p> <p>Project activities are not expected to seriously affect Indigenous peoples rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage. FPIC will be conducted, and ESIA will be carried out to further identify additional risks and mitigation measures related to the project activities. Any involuntary restrictions on land use and access to natural resources subject to traditional ownership or under customary use will be addressed by ensuring IPs rights are respected and that they are involved in the development of the project strategies. The project consultation process and project-level GRM will facilitate to integrate within the project, the needs and priorities expressed by the involved indigenous communities in manners that are culturally appropriate.</p>

	<i>instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some cases individuals, recognize as part of their spiritual and/or cultural heritage"</i>			
9.4	Would this project be located in an area where cultural resources exist?	LOW RISK	MODERATE RISK To preserve cultural resources (when existing in the project area) and to avoid their destruction or damage, due diligence must be undertaken to: a) verify that provisions of the normative framework, which is usually under the oversight of a national institution responsible for protection of historical and archaeological sites/intangible cultural heritage; and b) through collaboration and communication with indigenous peoples' own governance institutions/leadership, verifying the probability of the existence of sites/intangible cultural heritage that are significant to indigenous peoples. In cases where there is a high chance of encountering physical cultural resources, the bidding documents and	Moderate risk The project will preserve and protect the cultural heritage (tangible and intangible), avoiding and reducing the adverse impacts that the Project could cause on the cultural heritage. The project does not aim at using intangible forms of culture such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles for commercial purposes. Activities to be carried at Indigenous Peoples' territories are to be adequately consulted with them through FPIC. Refer to exclusion list (Appendix 1), the project recognizes that these are excluded areas and can be used only for the purposes for which they were established. Activities under component 2, related to planning process (Landscape Management Strategies of the counties) shall map or delimit this areas. Chance find procedure has been included as part of the Appendixes of the ESMF (Appendix 7).

			contract for any civil works must refer to the need to include recovery of “chance findings” in line with national procedures and rules	
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ADDITIONAL INFORMATION	YES	NO
Is there any other potential environmental and/or social risk of this project that has not been captured in the screening checklist?		
Is the proposed project considered potentially controversial?		

Appendix 7: Free Prior and Inform Consent (FPIC)

Guiding Principles:

Free, Prior and Informed Consent (FPIC) is a universal norm of international law as per: UNDRIP, the ILO Convention 169, and the Convention on Biological Diversity (CBD). Other relevant, legally binding instruments include: the International Covenant on Civil and Political Rights (ICCPR); the International Covenant on Economic, Social and Cultural Rights (ICESCR); the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD); the American Convention on Human Rights; and the African Charter on Human and Peoples' Rights (ACHPR).

In accordance with FAO Policy on Indigenous and Tribal People (2010), consultation and free, prior and informed consent will be sought when FAO projects directly affect Indigenous Peoples. The core principles of the policy are: self-determination; the respect for indigenous knowledge, cultures and traditional practices that contribute to sustainable and equitable development; and Free, Prior and Informed Consent. The policy is operationally reflected in FAO Environmental and Social Guidelines and the Guide to the Project Cycle. FPIC is an international human rights standard that derives from the collective rights of Indigenous Peoples to self-determination and to their lands, territories and other properties. FPIC is deeply rooted in this human rights-based approach as it prioritizes Indigenous Peoples' effective participation in determining how best to achieve meaningful and positive components to meet their needs and aspirations, particularly using parameters that emanate from their respective cultures.

FPIC should be applied in conjunction with all decisions that may affect Indigenous Peoples rights, respecting Indigenous Peoples' rights to be represented through their own institutions; to exercise customary law; to the ownership of the lands, territories and natural resources that they traditionally own, occupy or otherwise use; to self-identification; to manifest their cultures; and, more fundamentally, to self-determination. In accordance with international legal agreements such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the International Labour Organization (ILO) Convention 169 and the *Policy on Indigenous and Tribal Peoples* by the Food and Agriculture Organization (FAO), Indigenous Peoples share the following characteristics:

- They self-identify as indigenous and in some cases are recognized by other groups, or by State authorities, as having a distinct collective identity.
- They have ancient historical ties with respect to living in and using a specific territory.
- Their cultural distinctiveness is voluntary and handed down through generations. This may include aspects of language, social organization, religion and spiritual values, modes of production, laws and institutions.
- They have experienced or are experiencing subjugation, marginalization, dispossession, exclusion or discrimination.
- Note that, the recognition or identification of certain collectivities as "Indigenous Peoples" shall not be dependent on whether the national government has recognized them as such.

In the practical implementation of FPIC, Indigenous Peoples and local communities themselves, as the rights-holders, should shape the form, pace and participants in the process by which states and other actors respect FPIC. An FPIC process will vary according to the specific local context in which a project is to be developed. All elements within FPIC are interlinked, and they should not be treated as separate elements (Table 13).

Table 13 Defining the element of FPIC

Element of FPIC	Description
Free refers to a consent given voluntarily and without coercion, intimidation or manipulation. It also refers to a process that is self-directed by the community from whom consent is being sought, unencumbered by coercion, expectations or timelines that are externally imposed.	<ul style="list-style-type: none"> • Rights-holders determine the process, timeline and decision-making structure. • Information is offered transparently and objectively at the request of the rights-holders. • The process is free from coercion, bias, conditions, bribery or rewards, • Meetings and decisions take place at locations and times and in languages and formats determined by the rights-holders; and • All community members are free to participate regardless of gender, age or standing.
Prior means that consent is sought sufficiently in advance of any authorization or commencement of activities, at the early stages of a development or investment plan, and not only when the need arises to obtain approval from the community.	<ul style="list-style-type: none"> • Prior implies that time is provided to understand, access, and analyze information on the proposed activity. The amount of time required will depend on the decision-making processes of the rights-holders. • Information must be provided before activities can be initiated, at the beginning or initiation of an activity, process or phase of implementation, including conceptualization, design, proposal, information, execution, and following evaluation; and • The decision-making timeline established by the rights-holders must be respected, as it reflects the time needed to understand, analyze, and evaluate the activities under consideration in accordance with their own customs.
Informed refers mainly to the nature of the engagement and type of information that should be provided prior to seeking consent and also as part of the ongoing consent process. Relevant information includes: i) the nature, size, pace, duration, reversibility and scope of any proposed project; ii) project objective; iii) location of areas that will be affected; iv) preliminary assessment of potential impacts, risk and benefits; v) personnel/institutions likely to be involved in the implementation of the project; vi) GRM along with other procedures.	<ul style="list-style-type: none"> • Accessible, clear, consistent, accurate, constant, and transparent. • Delivered in appropriate language and culturally appropriate format (including radio, video, graphics, documentaries, photos, oral presentations). • Objective, covering both the positive and negative potential of the project activities and consequences of giving or withholding consent. • Complete, covering the spectrum of potential social, financial, political, cultural, environmental impacts, including scientific information with access to original sources in appropriate language. • Delivered in a manner that strengthens and does not erode indigenous or local cultures. • Delivered by culturally appropriate personnel, in culturally appropriate locations, and include capacity building of indigenous or local trainers. • Delivered with sufficient time to be understood and verified. • Accessible to the most remote, rural communities, including youth, women, the elderly and persons with disabilities, who are sometimes neglected. • Provided on an ongoing and continuous basis throughout the FPIC process, with a view to enhancing local communication and decision-making processes.

<p>Consent implies that Indigenous Peoples have agreed to the activity that is the subject of the consultation. Consultation and participation are key elements of a consent-seeking process. The parties must establish a dialogue allowing them to identify appropriate and workable solutions in an atmosphere of mutual respect and full and equitable participation, with ample time to reach decisions.</p>	<ul style="list-style-type: none"> • Consultation must be undertaken in good faith, indigenous views are accommodated in the process or objective justifications are provided as to why such accommodation is not possible. • A freely given decision that may be a “Yes” or a “No,” or offer “Yes with conditions” including the option to reconsider if the proposed activities change or if new information relevant to the proposed activities emerge. • A collective decision determined by the affected peoples (e.g. consensus, majority, etc.) in accordance with their own customs and traditions; • Indigenous Peoples and local communities must be able to participate through their own freely chosen representatives and customary or other institutions; participation of women, youth and elderly should be taken into account also.
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Implementing FPIC

Further consultation process will be conducted once the specific sites for the project activities and sub-activities have been defined. FPIC can be considered a positive engagement practice, even when Indigenous Peoples are not present, this project will utilize the FPIC process in instances where Indigenous Peoples are present, ensuring that these communities are: (i) engaged with material in their relevant language/dialect(s); (ii) understand that benefits accrued under the project are shared with all participants and community members; and (iii) given opportunity to confirm their respectively preferred Grievance Redress Mechanisms. As detailed in this ESMF, the community specific Grievance Redress Mechanism (GRM) will likely include additional representation of minority groups to ensure fair and transparent redress. The following provides a brief description of the main steps or elements to be considered as part of FPIC:

- 1. Identifying rights-holders:** Identify, in a participatory process, who are the existing rights-holders and land users in the targeted project area. This will help determine how local communities make use of the land, as well as what kinds of claims different groups may have to the targeted land and the natural resources therein, and who has the right to be consulted and to give or withhold consent to the project. Rights- holders should be identified throughout all parts of the targeted project area as well as bordering areas. Bordering communities may have claims to land within the project area or resources affected by the activities therein (e.g., water), or they may make seasonal use of these resources or have other forms of tenure relationships with people living inside the targeted project area.
- 2. Ascertaining the legal status of the lands:** Clarify the extent of Indigenous Peoples’ rights over lands and other resources, and where possible to secure these rights. The purpose of this step is to determine who has rights over the targeted project land, both in state laws and under customary law; how the legal status of the land will change if a company acquires it; and what effect this has on rights-holders.
- 3. Mapping claims to and uses of land:** Conduct a participatory mapping and documentation of land usage, natural resources, communication channels/media, and customary rights as part of the initial project assessment. Establish the extent of the lands and resources over which existing inhabitants of the targeted project area have both formal and informal rights and/or use. The maps should cover all parts of the targeted project area as well as bordering zones. Mapping should be a community-driven process, facilitated and supported by the the Organization (FAO) and/or the government, possibly

with the support of NGOs. Consider the maps to be a tool in this process, rather than an end in themselves. The map(s) should be accessible to all actors in forms and languages accessible to the communities.

- 4. Identify decision-making institutions and representatives:** Ensure that rights-holders are represented through individuals and institutions of their own choice, and who are accountable and legitimate to those they represent, in consultation, negotiation, decision-making and consent-seeking. This representation avoids misunderstandings and agreements that do not reflect the views of the community, which, in turn, may result in disputes. Ensure that rights-holders are represented through individuals and institutions of their own choice, and who are accountable and legitimate to those they represent, in consultation, negotiation, decision-making and consent-seeking. This representation avoids misunderstandings and agreements that do not reflect the views of the community, which, in turn, may result in disputes.
- 5. Carrying out interactive consultations and information-sharing:** share, in a multi-directional process, all relevant information pertaining to the projected development with relevant actors and rights-holders. With this information, communities are better placed to decide whether a project should or should not go ahead, and to discuss any modifications necessary to secure their consent. Consultations should occur at the location and with the frequency necessary for all parties to feel comfortable and confident participating actively, meaningfully and freely. For this consider:
 - planning local meeting with the agree communities; carry out participatory social and environmental impact assessments and share the findings with the affected communities; convey all information in forms and languages that are accessible and relevant to all parties; involve facilitators in consultations to ensure that all parties have equal space to voice their views; hire interpreters with adequate skills and experience; convey the right to say ‘no’ or ‘we don’t know’; involve as many communities in the consultation as necessary; help communities create a plan of action, others
- 6. Providing access to independent sources of information and advice:** Communities have the right to access independent sources of information throughout the process of respecting FPIC, including during the process of reaching consent and, in particular, prior to decision-making and agreement. The purpose of this is to allow communities to make informed decisions based on a comprehensive range of information of their own choice – including information on alternatives to the proposed development – independently of the project proponents’ interests.
 - Inform communities that they have the right to access independent sources of information throughout the process, as well as the right to seek advice from other Indigenous Peoples and from indigenous or non-indigenous organizations, as they see fit; provide a choice of facilitators; and support the use of advisors (including but not limited to lawyers, legal advisors or other allies).
- 7. Reaching agreement and making it effective:** Consent-seeking process is free of manipulation, that agreements reached are mutual and recognized by all parties, and that further steps can be introduced where consent is withheld, if this is agreed to by the local communities. Consent from all parties is necessary for completion of each step of the process, even where these steps are repeated. Moreover, even in a case where consent has been obtained from Indigenous Peoples and local communities, it must not result in the undermining of their human rights. Take the following into consideration:
 - Establish the role of the facilitator; note that negotiation is not about winning or losing – it is about cooperating so that all parties can achieve at least some of their objectives; be flexible.

When a community is opposed to certain parts of a project, try to establish which parts are acceptable to the community and which parts need to be adapted or abandoned; where consent is withheld, establish the causes, the conditions that would need to be met for the communities to give their consent, whether the community will consider renegotiation, and the terms and timing of eventual renegotiation. Document the process in forms and languages accessible to all parties, and provide for stakeholder review and authentication.

8. **Monitoring and verifying agreements.** Once consent has been reached, it is important to ensure that agreements made through the consultation process are respected in their practical implementation. If agreements are not respected, sanctions and/or mechanisms of redress need to be activated. Modes of monitoring and verifying agreements should be jointly defined before an agreement is finalized, and the monitoring and verification procedures should be described in the agreement.
 - Communities should be involved in joint monitoring of project implementation²²²; use of independent monitors; ensure that rights and voice of marginalized groups (women, youth, elders) is taken into account; offer respondents anonymity and maintain anonymity of inputs where requested; agree with the community at what stage grievance processes will be triggered, should problems emerge during monitoring.
9. **Establishing a Grievance process:** establish an independent mechanism for parties to raise concerns that may arise throughout the project's lifetime. The grievance mechanism should allow consent to be re-established through a more accessible and local alternative to external dispute resolution processes. The mechanism should be discussed and developed early on rather than left until disputes or breakdowns of consent occur. Thus, deciding on the form of the grievance process should be part of the consultation and consent-seeking process. The process should be available for use during pre-agreement stages and should be included in any agreements that are reached. Take the following into consideration:
 - Agree with the community on how to receive and register grievances; agree with the community on how to review and investigate grievances; agree on resolution options satisfactory to all parties; agree on how grievance resolution will be monitored; inform communities about government adjudication processes and access to justice; and formalize, document and publicize the grievance process.
10. **Providing access to remedy and conflict resolution:** this is essential to fulfil the right to remedy for actors who feel other parties have violated their rights. As with anticipating and establishing grievance mechanisms, conflict resolution mechanisms should be discussed and developed early on rather than left until disputes occur or consent breaks down. Consultations with local communities should be informed by any outstanding obligations of previous operators that have been documented, and forms of remedy should be discussed in the consent- and agreement-reaching stages. The outstanding obligations should be fulfilled once consent has been given for the project to go ahead.
11. **Documenting lessons learned:** During the FPIC process, and after it has been completed, it is important to document any lessons learned that can improve future actions. Work together with the community to document what was learned throughout each stage of the FPIC process, including both strengths and weaknesses.

²²² This includes community input on the design of the monitoring approach, the activities to be monitored, the monitoring methods, how diverse views will be solicited and how results will be recorded and shared with the wider community

Engagement Process with Indigenous Peoples

In order to effectively consult and engage with Indigenous People during implementation, the following process will be followed:

- a) Project sites and activities will be identified through the process detailed in full project funding proposal. Considering the activities to be implemented in the different counties will be very similar in nature and scale across the implementation area, it is proposed that screening for potential risks is undertaken at sub-activity level. Sub-activities constitute a valid tool to identify expected impacts and mitigation and monitoring measures. Identification of sub-activities will take place during the inception phase in Year 1. For each sub-activity, implementing sites will be identified along with activities, including capacity building/training and stakeholder engagement information specific to each site.
- b) Safeguards screenings will be conducted as detailed in the main ESMF, using FAO “Environmental and Social Screening Form”.
- c) FPIC consultations will commence in instances where indigenous communities are present. FPIC will be conducted following the process detailed by FAO in the FPIC Manual for Project Practitioners²²³. It is understood that this will involve:
 - Consultation and consent prior to commencement of any project activities. This involves providing ethnic minorities with the time needed to discuss based on a decision-making timeline identified by the respective communities.
 - Consent must be free – i.e., given voluntarily and without coercion, intimidation, or manipulation. It will also be obtained through a process which is sensitive and relevant to the ethnic minority community/communities involved.
 - Provision of information to indigenous communities in their relevant language/dialect, in a clear, consistent, accurate, transparent, and accessible way that is culturally sensitive. Information will also be given on an ongoing basis throughout the project, thus it is not a one-time transfer of communication, rather, an ongoing relationship between communities and project implementers/practitioners.
 - Consent, which refers to the collective decision made by the ethnic minority community (including women, youth, elderly peoples, and peoples with disabilities) reached through their own customary decision-making processes. The consent must be sought and granted (or withheld) according to the unique formal or informal political-administrative dynamic of each community.
- d) The information that is conveyed prior to consultation events should include, at a minimum:
 - Identify IPs in the project area, nature of the project, and how it is likely to affect the various stakeholder groups at the local level. Since different groups are likely to be affected differently, the information provided should be tailored to the different stakeholder groups to the extent possible.
 - If they are available, technical studies and reports should be provided, for example information from environmental and social impact assessments. In such cases, there may be a need to simplify or summarize technical reports, to avoid technical jargon and to make them more understandable to non-specialists.

²²³ <https://www.fao.org/3/i6190e/i6190e.pdf>

- Stakeholders should be asked in which format and manner they find information most useful — this could be through illustrations, role play, videos, or through other means, in addition to more traditional written or verbal communications.
 - A preliminary agenda for the events, summarizing the different topics that will be discussed.
 - What people’s rights and responsibilities are under the project, and how they can contribute to project design and implementation.
- e) The form of consultation should be tailored to the nature of the project, and based on the stakeholder analysis and engagement plan. A combination of different types of engagement may be considered, such as: public hearings or meetings; workshops and seminars; consultations with key informants; focus groups; round tables; discussions as part of conducting surveys or census studies ; consultations using electronic media; awareness campaigns and outreach. The consultation process will often require several separate events and different formats, and it may require follow up and engagement at different times with the same stakeholders. Different methods and types of events will be appropriate for different groups. Examples may include:
- If a project is spread over a large geographical area, consultations and discussions should be held in different locations to ensure that as many people as possible can attend.
 - There may also be temporal considerations to when consultations should be held: It may be better to reach people on a weekend or in the evening than during working days.
 - Some people may be labor migrants and away from the local community.
 - Some people may be seasonal users of land and resources, such as some nomadic or pastoralist groups.
 - If discussions are held at some distance from people’s homes, it may be necessary to arrange for transportation of some individuals and groups, such as elderly or disabled people.
 - If people are invited to a consultation event but do not participate, additional outreach or targeted efforts may be needed to reach them.
 - People who are informal or illegal occupants of a space, such as urban slum dwellers, or migrants from other countries who do not have residency permits, may need assurances of a “safe space” for the consultation process, and guarantees that they will not be evicted or harmed in any other way.
- f) Indigenous Peoples Plans will be developed for areas with ethnic minorities, incorporating details obtained through the FPIC process and baseline social and economic information about the relevant indigenous group(s). These plans will: (i) identify and assess potential impacts on the communities; (ii) identify and assess potential barriers to the ethnic minority groups’ ability to engage in (and benefit from) the project; (iii) specify the mitigation measures to be taken to address the risks identified and/or the additional actions/measures to be taken to overcome barriers to ethnic minorities’ participation; and (iv) specify the monitoring/reporting plan. **Refer to Appendix 8.**

Resources required to ensure FPIC implementation

Within the PMU, Safeguards Specialists and the Indigenous Peoples specialist will perform his/her duties in close collaboration with other specialist staff working in the project. These institutional arrangements will enable (and build the capacity of) other project-recruited staff to deliver and monitor the implementation of FPIC & IPP with support, guidance and oversight provided by the Indigenous Specialist. These other project staff will also benefit from an initial training (in PY1) and annual refresher trainings on environmental and social safeguards. These annual trainings will include content on FAO

environmental and social safeguards, and identifying, understanding and (as appropriate) responding to the needs and challenges of indigenous communities in the project area. The Indigenous Specialist will bear overall responsibility for delivering this element of the initial training and annual refresher trainings. All safeguards-related documentation will be reviewed/approved by the Lead Safeguards Specialist. For documentation that is specifically related to the development and delivery of FPIC and IPPs, the Indigenous Specialist will first be responsible for reviewing/approving such documentation before it is submitted to the Lead Safeguards Specialist.

To ensure adequate and ongoing consultations, monitoring, and reporting for safeguards – including engagement with Indigenous Peoples – the project already provisions for (as detailed further under ESMF budget): (i) hiring of Indigenous Peoples Specialist; ii) annual refresher trainings on safeguards; (iii) annual consultations with participants to identify changes in status, potential concerns, etc.; and (iv) monitoring and reporting on ESMPs (including ESMF, FPIC, IPP,) every six months. The project Indigenous Peoples Specialist will be responsible for consultations related to the FPIC process, and will provide ongoing engagement and support for monitoring and reporting insofar as it is related to ethnic minority communities.

Budgetary allocations for the development of and monitoring/reporting on FPIC is already included as part of the broader project budget (see ESMF Budget Appendix). The Indigenous Specialist will ensure that FPIC/IPP include provisions to minimize any negative risks/impacts on indigenous communities whilst also maximizing the extent to which these communities benefit from the project.

Appendix 8: Indigenous Peoples Plan (Table of Content)

If the proposed project may affect Indigenous Peoples, an Indigenous Peoples Plan (IPP) needs to be elaborated and included in the project documentation for every engagement with Indigenous Peoples. The IPP is to be elaborated and implemented in a manner consistent with the requirements of FAO Environmental and Social Safeguards on Indigenous People. The IPP will have a level of detail proportional to the complexity of the nature and scale of the proposed project and its potential impacts on Indigenous Peoples' rights, lands, territories, resources, traditional livelihoods, and cultural heritage. Where the specific project activities, and/or locations have not been fully defined, the executing entity must prepare an Indigenous Peoples Planning Framework (IPPF).

With the effective and meaningful participation of the affected peoples, the IPP shall be elaborated and contain provisions addressing, at a minimum, the substantive aspects of the following outline:

- A. Executive Summary of the Indigenous Peoples Plan: Concisely describes the critical facts, significant findings, and recommended actions.
- B. Description of the Project: General description of the project, the project area, and components/activities that may lead to impacts on Indigenous Peoples.
- C. Description of Indigenous Peoples: A description of affected Indigenous Peoples and their locations, including:
 - i. description of the community or communities constituting the affected peoples (e.g. names, ethnicities, dialects, estimated numbers, etc.);
 - ii. description of the resources, lands and territories to be affected and the affected peoples connections/ relationship with those resources, lands, and territories; and
 - iii. an identification of any vulnerable groups within the affected peoples (e.g., uncontacted and voluntary isolated peoples, women and girls, the disabled and elderly, others).
- D. Summary of Substantive Rights and Legal Framework: A description of the substantive rights of Indigenous Peoples and the applicable legal framework, including:
 - i. analysis of applicable domestic and international laws affirming and protecting the rights of Indigenous Peoples (include general assessment of government implementation of the same).
 - ii. analysis as to whether the project involves activities that are contingent on establishing legally recognized rights to lands, resources, or territories that Indigenous Peoples have traditionally owned, occupied or otherwise used or acquired. In such cases, this shall include: (a) identification of the steps and associated timetable for supporting legal recognition of such ownership, occupation, or usage with the support of the relevant authority, including the manner in which delimitation, demarcation, and titling shall respect the customs, traditions, norms, values, land tenure systems and effective and meaningful participation of the affected peoples, with legal recognition granted to titles with the full, free prior and informed consent of the affected peoples; and (b) list of the activities that are prohibited until the delimitation, demarcation and titling is completed.
- E. Summary of Social and Environmental Assessment and Mitigation Measures
 - i. A summary of the findings and recommendations of the required prior social and environmental impact studies, specifically those related to Indigenous Peoples, their rights, lands, territories, resources, traditional livelihoods, and cultural heritage. This should include the manner in which the affected Indigenous Peoples participated in such study and their views on the participation mechanisms, the findings and recommendations.

- ii. ii. Where potential risks and adverse impacts to Indigenous Peoples, their lands, resources and territories are identified, the details and associated timelines for the planned measures (including issues related to community-based natural resources management, tenure arrangements) to avoid, minimize, mitigate, or compensate for these adverse effects. Identification of special measures to promote and protect the rights and interests of the Indigenous Peoples including compliance with the affected peoples' internal norms and customs.
- F. Participation, Consultation, and FPIC Processes
 - i. A summary of results of the culturally appropriate consultation and FPIC processes undertaken with the affected peoples' which led to the Indigenous Peoples' support for the project.
 - ii. A description of the mechanisms to conduct iterative consultation and consent processes throughout implementation of the project. Identify particular project activities and circumstances that shall require consultation and FPIC.
- G. Appropriate Benefits: An identification of the measures to be taken to ensure that Indigenous Peoples receive equitable social and economic benefits that are culturally appropriate, including a description of the consultation and consent processes that lead to the determined benefit sharing arrangements.
- H. Gender assessment and action plan
- I. Capacity support: Description of measures to support social, legal, technical capabilities of Indigenous Peoples' organizations in the project area to enable them to better represent the affected Indigenous Peoples more effectively.
- J. Grievance Redress: A description of the procedures available to address grievances brought by the affected Indigenous Peoples arising from project implementation, including the remedies available, how the grievance mechanisms take into account Indigenous Peoples' customary laws and dispute resolution processes, as well as the effective capacity of Indigenous Peoples under national laws to denounce violations and secure remedies for the same in domestic courts and administrative processes. The GRM shall be consistent with GCF Indigenous Peoples Policy.
- K. Monitoring, Reporting, Evaluation: i) Mechanisms and benchmarks appropriate to the project for transparent, participatory joint monitoring (including independent expert), evaluating, and reporting, including a description of how the affected Indigenous Peoples are involved. ii. Define the mechanisms put in place to allow for periodic review and revision of the IPP in the event that new project circumstances warrant modifications developed through consultation and consent processes with the affected Indigenous Peoples.
- L. Institutional Arrangements: Describes institutional arrangement responsibilities and mechanisms for carrying out the measures contained in the IPP, including participatory mechanisms of affected Indigenous Peoples. Describes role of independent, impartial entities to audit, conduct social and environmental assessments as required, and/or to conduct oversight of the project.
- M. Budget and Financing: An appropriately costed plan, with itemized budget sufficient to satisfactorily undertake the activities described.

Note: The IPP will be implemented as part of project implementation. However, in no case shall project activities that may adversely affect Indigenous Peoples take place before the corresponding activities in the IPP are implemented. Where other project documents already develop and address issues listed in the above sections, citation to the relevant document(s) shall suffice.

For an IPPF, the above outline would be modified to include the procedures for screening, assessment and development of specific IPP(s) once the project components, sub-project activities and/or activities

have been fully defined. The procedures would generally replace section E above, however the IPPF would still seek to identify types of anticipated potential adverse social and environmental impacts.

Appendix 9: Example of additional mitigation actions of main production systems

Measures	Examples of Potential Adverse Impacts	Examples of Potential Mitigation Measures
Planning processes and implementation	<ul style="list-style-type: none"> Exclusion of normally marginalized groups or sectors (Indigenous People, PLWD, women, youth, elderly) Access to livestock and other agriculture activities can also be strongly gendered. 	<ul style="list-style-type: none"> Carry out FPIC before implementing activities in indigenous areas or before implementing any project activity that could impact indigenous communities. Developing educational materials on hazardous work for children and ways to reduce hazards (e.g. pesticides); incorporate health and occupational safety concerns as part of training curricula, raise awareness and enhance capacity of local stakeholders on health and safety risk assessments to identify work hazards for children and young workers and put in place, occupational safety and health (OSH) measures that address exposure of working children to identified hazards (through capacity-building workshops, trainings); conduct awareness raising about the benefits of education Capacitate cooperatives in adopting GESI strategies to address the disproportionate access to productive resources and assets and to prioritize women and youth-led cooperatives by building capacity, providing special support in preparing CRLCSA investment plans and mobilization of resources, and facilitating loan applications. The project will ensure women, PLWD, and youth have access to assets and training through the FFS Approach, and that each cooperative has a trained gender and youth focal point to document ongoing challenges in reaching, benefitting, and empowering women, youth, and PLWD, and that there are appropriate mechanisms within the cooperative to prioritize addressing these challenges.
Renewable Energy Source ▪ Solar PV systems: water heaters, pumps, cooling systems (refrigeration),	<ul style="list-style-type: none"> Inappropriate recycling of batteries containing potential environmental contaminants (lead-acid batteries, lithium batteries). This could lead to environmental contamination, as well as health and safety risks. Health and safety risks from equipment installation, inappropriate waste management and disposal. 	<ul style="list-style-type: none"> Environmental and Social Management Plan for appropriate waste management based on good practices (e.g., WHO guidelines on lead acid battery recycling)²²⁴ Enforcement of occupational, health. and safety (OHS) standards. Awareness raising and trainings on good industry practices protocols and other key considerations. Life-cycle emissions can be reduced by utilizing appropriate technology decommissioning

²²⁴ Good practice example: WHO manual for control measures for lead-acid batteries:
<http://apps.who.int/iris/bitstream/handle/10665/259447/9789241512855-eng.pdf;jsessionid=FBF0AFCD3FBFAA6ADAD26B077818EB7F?sequence=1>

<p>solar dryers or dehydrators</p> <ul style="list-style-type: none"> ▪ Bio-energy (biogas and biomass) 	<ul style="list-style-type: none"> ▪ Biogas plants could lead to inappropriate processing of slurry that could lead to soil and water contamination. Further, if plants are not calibrated to the amount of waste-available on site it could lead to the use of other materials to support biogas generation. ▪ Inappropriate waste management/ disposal of cooling materials or industrial waste ▪ Increase use on energy 	<p>practices, supporting the recycling of parts possible, to the greatest extent possible and based on good practices.</p> <ul style="list-style-type: none"> ▪ ESMP for biogas measures, to ensure appropriate measures are applied to minimize impacts. ▪ ESMP for waste disposal/ management to ensure appropriate measures are adopted. Old equipment should be properly decommissioned, recycled and/or disposed of to avoid GHG emission leakages. ▪ Awareness raising and trainings on best industry practices, and ESS.
<p>Water reservoirs and irrigation</p> <ul style="list-style-type: none"> ▪ Micro and small dams or water reservoirs 	<ul style="list-style-type: none"> ▪ Could generate adverse impacts on community health and safety depending on the technology used, locations, the size of reservoirs, among others. ▪ Increase vectors and water-borne diseases ▪ Increase use of water & energy 	<ul style="list-style-type: none"> ▪ Adequate site identification to minimize impact on community health and safety. ▪ ESMPs for appropriate risk mitigation (on-site) ▪ Enforcement of occupational health and safety (OHS) standards, and integration of international best practices and guidelines²²⁵ <p>Conduct education and awareness raising with the local end-users regarding (a) sanitation and health issues related to Water-borne and/or water related diseases a; b) and make emphasize on the use of small dams/water tanks or any water reservoir system for livestock and irrigation purposes (not as domestic water supply, this should be discourage); and integrated water management approach to save use water efficiently.</p> <ul style="list-style-type: none"> ▪ Besides empowering communities and increasing engagement and awareness of endemic zoonotic, vector borne disease prevention, the project will also integrate vector control activities that includes: the use farmer field schools to promote integrated pest management and integrated vector management (e.g. increased larval source management by deployment of microbial larvicides, create buffer zones between water reservoirs and the settlements); adequate shoreline management around small dams and reservoirs by zoning and adequate coverage, such as vegetation or pebbles; reducing standing water by installing proper drainage systems; where feasible, use of covered tanks or storage in groundwater rather than open water storage; capacitate

225 FAO. 2010. Manual on small earth dams A guide to siting, design and construction. Available at <https://www.fao.org/4/i1531e/i1531e.pdf>. Additional reference document includes: World Bank. 2021. Safety of dams and downstream communities. Technical Note 4 – Small Dam Safety. Available at: <https://documents1.worldbank.org/curated/en/421311619169006919/pdf/Small-Dam-Safety.pdf>

		<p>communities to enhance participatory vector surveillance and monitoring, among others.</p> <ul style="list-style-type: none"> ▪
Agriculture practices	<ul style="list-style-type: none"> ▪ Direct and indirect impact on biodiversity and ecosystems: habitat conversion or degradation, water usage, pollution, introduction of invasive species, inappropriate cultivation techniques. Indirect impacts relate to in-migration, and induced changes to access for traditional land uses (including hunting, fishing, and recreation) ▪ Inappropriate use and handling of agrochemicals can lead to air, soil, and water contamination, and negatively impact the health of workers. ▪ Soil salinization due to accumulation of salts from irrigation water. ▪ Disruption of hydrological flows and water bodies due to clearance of vegetation in upper catchments and over-abstraction of surface- and groundwater for irrigation ▪ Exposure to organic dust: expose workers to dust from threshing, milling, handling, and storage of grain or hay (e.g. cleaning silos, dryers, and grain hoppers, etc. ▪ Potential exposure to pathogens, microbial contaminants and noxious odors associated with the use of manure.) 	<ul style="list-style-type: none"> ▪ Exclusion of land acquisition, land use restriction and land use change, unless land use change occurs on degraded land and is for the purposes of restoration of these degraded lands. ▪ Establish a biodiversity conservation plan ²²⁶ or biodiversity action plans ²²⁷, following good practices. ▪ Develop a Pesticide Management Plan, prepared in accordance with FAO guidelines on pesticide management ²²⁸, and should be consistent with country commitments under the Stockholm ²²⁹, Rotterdam ²³⁰, and Basel Conventions ²³¹ ▪ Develop a comprehensive nutrient management plan (CNMP) based on the 4Rs of fertilization management (right source, right rate, right time, and right place); ▪ Landscape Management Strategies will identify critical key biodiversity hotspots, environmental degradation, land-use, to planned appropriate investments in county. ▪ Trainings on good practices, including appropriate use of agrochemicals (e.g., quantities, types of agrochemicals, alternative products, safety equipment and appropriate practices). ▪ Prioritize the use of organic fertilizers (apply compost, manure) combined with conservation agriculture practices: cover crops (nitrogen-fixing legumes), green manure, crop rotation). ▪ Trainings for monitoring and evaluating E&S risk and impacts ▪ Respect of decent work standards, and provide guidance on OHS.
Livestock	<ul style="list-style-type: none"> ▪ Onset or spread of animal disease. ▪ Erosion and loss of soil fertility due to overgrazing. ▪ Pollution of water bodies and groundwater. ▪ Potential exposure to pathogens, microbial contaminants and 	<ul style="list-style-type: none"> ▪ Establish and implement bio-safety protocols in entire operation chain and production facilities: control farm animals, equipment, personnel, and wild or domestic animals entering the facility (e.g., quarantine periods for new animals, washing and disinfecting crates, disinfection, and coverage of shoes, providing protective clothing to personnel, etc.).

²²⁶ Guide to protect biodiversity in production landscapes:

undp.org/content/dam/undp/library/Environment%20and%20Energy/biodiversity/PBiPL.pdf

²²⁷ IFC

²²⁸ http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/CODE_2014Sep_ENG.pdf

²²⁹ <http://chm.pops.int/>.

²³⁰ ¹¹ <http://www.pic.int/>.

²³¹ <http://www.basel.int/>.

	<p>noxious odors associated with the use of manure.</p> <ul style="list-style-type: none"> Food and safety impacts: development of antibiotic resistance by pathogenic bacteria is of concern and arises when bacteria acquire resistance to one or more of the antibiotics to which they were formerly susceptible. Concerning risks to community health and safety from the ingestion of hazardous substances in beef, milk, and pork, the FAO/WHO Codex Alimentarius provides guidance on veterinary drug residues (such as growth hormones) and pesticide residues and provides official Codex standards for dairy and meat products, such as cheese and ham. 	<ul style="list-style-type: none"> Develop a veterinary health plan (disease prevention strategies, treatments, vaccinations protocols, Identify and segregate sick animals and develop management procedures for adequate removal and disposal of dead animals). Develop grazing land management systems to keep pastures under their carrying capacities (e.g., GIS-based systems, grazing fees, community-based regulation of access). Ensure that animals and unauthorized people are not present in the areas where pesticides or other potentially harmful products are handled, stored, or applied. Develop a comprehensive nutrient management plan (CNMP) for pasture management, based on the 4Rs of fertilization management (right source, right rate, right time, and right place). Reduce use of antimicrobial by improving animal health and hygiene practices, animal welfare (e.g. ensuring good air and water supply quality, appropriate ventilation rates and space allocation). Establish a detailed animal health program supported by the necessary veterinary and laboratory capability. Train workers in the application of animal health products Only work with locally adapted species, breeds and genotypes. Especial care will be place during reproduction or breeding process to ensure that plant and animal species/breeds do not carry diseases or parasites. Furthermore, the project will not use or introduce genetically altered organisms, nor will it introduce or use experimental genetic technologies; neither will the project collect living material from the wild. Species/breeds to be used and promote are locally adapted ones
Poultry & Meat processing	<ul style="list-style-type: none"> Increase consumption of water and energy Exposure to chemical hazard: Potential exposure to pesticides, disinfecting agents, minerals, antibiotic, and hormonal products. Inappropriate waste management and disposals, include risk of handling hazardous materials (e.g., disinfecting agents, antibiotic and hormonal products, pesticides applied to barns or housing units), 	<ul style="list-style-type: none"> Select energy-efficient machinery and equipment (e.g., tractors, ventilation systems, drying and storage systems, cooling devices) and consider on-board fuel-use monitors (reduce heat loss from thermal processes, improve cooling efficiency) ESMPs for appropriate risk mitigation (on-site) Separate and collect product waste, including rinse waters and by-products, to facilitate recycling or further processing for subsequent use, sale, or disposal (e.g. whey and casein). Adopt best-practice methods for facility cleaning. Use combine techniques for treating industrial process.

	<ul style="list-style-type: none"> ▪ Water contamination from inappropriate handling of organic and inorganic waste. ▪ Spread of animal diseases specially in livestock operations this can affect other animal population as well as communities' health and safety ▪ Exposure to biological agents: Exposure to a range of pathogens such as bacteria, fungi, mites, and viruses (including "bird flu") transmitted from live birds, excreta, carcasses and parasites and ticks. If antibiotics are used in feed antibiotic resistant micro-organisms might develop in the gastrointestinal tract of birds. Resistant bacteria can potentially infect humans on or in the vicinity of the farm. ▪ Exposure to a series of physical hazards related to equipment and vehicle operation and repair, trip and fall hazards, and lifting heavy weights, which are common to other industries. ▪ Community health and safety impacts during the construction or rehabilitation of processing plants, slaughterhouses 	<ul style="list-style-type: none"> ▪ Provide workers with PPE that is appropriate for the process activity and ongoing training on OHS. ▪ Implement food safety standards consistent with the principles and practice of HACCP and Codex Alimentarius. ▪ As far as possible, ensure full traceability of all materials and products throughout the supply chain. ▪ Comply with veterinary regulations and precautions for management of waste, sludge, and by-products. ▪ Control and monitor effluent from processing plant (agro-facilities), such as: pH, BOD, COD, suspended solids, oil & grease, antibiotics, coliform bacteria, etc.).
Forest Plantations	<ul style="list-style-type: none"> ▪ Inappropriate site-species matching that can lead to negative environmental impacts (soil degradation, reduced water availability) ▪ Displacement of alternative land uses, competition with food crops if countries do not have appropriate legislation in place for the establishment of forest plantations. ▪ Social conflicts on indigenous territories and domains. ▪ Risk of forest fires ▪ Increase use of agrochemicals ▪ Harvesting and silvicultural practices (e.g. thinning) can pose a risk for OHS if not appropriately conducted with appropriate safety equipment and practices. 	<ul style="list-style-type: none"> ▪ Exclusion of land acquisition, land use restriction and land use change, unless land use change occurs on degraded land and is for the purposes of restoration of these degraded lands. ▪ Deforestation risk assessment will identify hotspots and develop country-specific criteria to support the assessment of projects, as well as the monitoring and evaluation of such projects. ▪ Project will only support the use of locally adapted tree species, native species, NO use of invasive species. ▪ Environmental and social management plans, including stakeholder engagement plans, should be developed that outline how social and environmental impacts will be minimized and addressed. ▪ The application of the Indigenous Peoples planning framework and the implementation of an Indigenous Peoples Plan can mitigate conflict in the respective territories and domains. ▪ Trainings on good practices for developing management plans, good practices for plantation forestry (OHS and appropriate harvesting and

		silviculture practices, forest fire prevention and management, and site-species matching).
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Source: Authors' own elaboration.

Appendix 10: Biodiversity Management Planning Framework

Introduction

The risk to biodiversity from the project “*Transforming Livelihoods through Climate Resilient, Low Carbon, Sustainable Agricultural Value Chains in the Lake Region Economic Bloc, Kenya*” is considered low. The project aims to generate significant positive environmental benefits by investing in the community-based sustainable management and restoration of agricultural landscapes. These practices will enhance the resilience of ecosystems, local communities and agricultural sector to climate change while also reducing land degradation.

The Biodiversity Management Framework outlines the planned approach of the “*Transforming Livelihoods through Climate Resilient, Low Carbon, Sustainable Agricultural Value Chains in the Lake Region Economic Bloc, Kenya*” project to protect biodiversity resources, manage potential impacts, and mitigate any negative effects that may arise during project implementation. It provides an overview of potential risks and impacts and details strategies to avoid and mitigate them. The ESMPs will include a section on biodiversity to ensure the effective integration and implementation of biodiversity management planning frameworks.

Biodiversity characterization

Kenya boasts a highly diverse and rich flora and fauna of global importance, represented within six kingdoms of life: Bacteria, Protozoa, Chromista, Fungi, Animalia, Plantae; being animals and plants the two most studied kingdoms in Kenya. Close to 60% of Africa’s floral diversity is represented in Kenya by at least 7,004 species, comprising 1,720 genera, across 240 families (MEWRA, 2015).

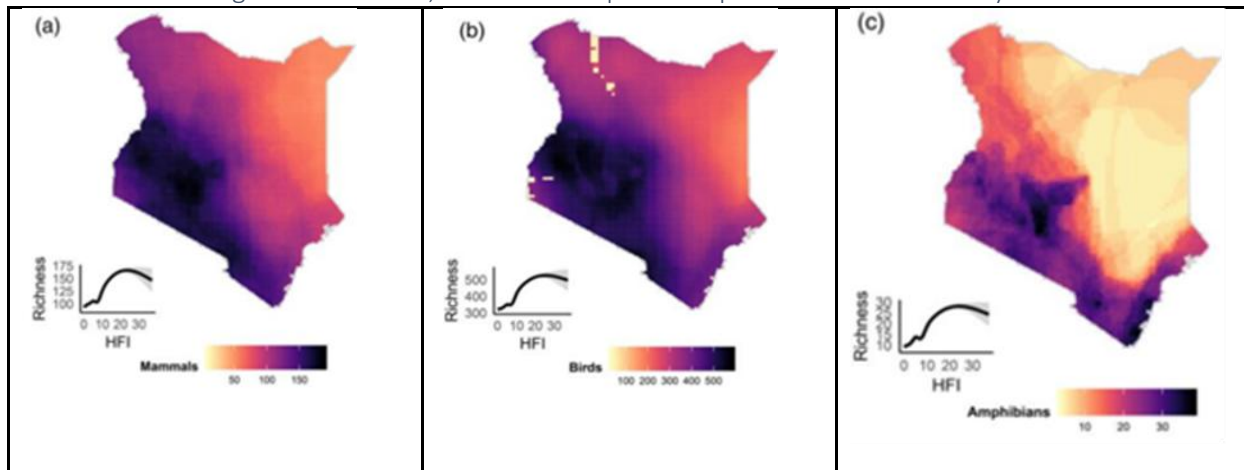
Biodiversity as an asset of Lake Victoria basin offers both social and economic uses in tourism, traditional medicine, food security and trade in traditional handicraft goods. According to the Kenya National Biodiversity Threat Assessment report (2020), Lake Victoria Basin (LVB) accounts with high biodiversity areas (Figure 7):

- **Mammal** species richness in Kenya is comparatively high for Africa with 390 to 405 species described, depending on the source and nomenclature. Of the mammal species found in Kenya, 41 are threatened (IBAT, 2020), while 91 species are experiencing declines in their global populations (IUCN Red List, 2020). The highest mammalian species richness occurs along the coastal belt, the central and western highlands, and the southern border.
- **Birds (avifauna):** The avian diversity in Kenya is among the highest in Africa owing to the mosaic of habitats ranging from semi-arid scrub to montane forest and Congo-Guinean rainforests. The number of bird species (including migrants and vagrants) described in Kenya ranges from 1,121 to 1,187 belonging to 28 orders and 104 families. Overall, population trends (at the global level) for 698 species occurring in Kenya are either stable or increasing, however populations of 354 species, or approximately 32%, are on the decline.
- **Amphibians:** Kenya has between 111 to 115 species of amphibians that belong to two orders, Anura (frogs and toads) and Gymnophiona (caecilians). Kenya’s amphibian species diversity is highest at

lower altitudes, along the humid coastal belt, and in the Western highlands where Central African forest forms can be found.

- **Plants** in Kenya belong in six classes Magnoliopsida, Pylpodiopsida, Liliopsida, Pinopsida, Cycadopsyda and Lycopodiopsida (IUCN Red List, 2020) and include roughly 7000 species (MEWNR, 2015). According to data extracted from the IBAT Country profile of Kenya (2020), for plants assessed and occurring in Kenya, a total of 122 species (CR: 25 and EN: 97) were highly threatened with extinction.

Figure 7 Mammal, birds and amphibian species richness in Kenya²³²

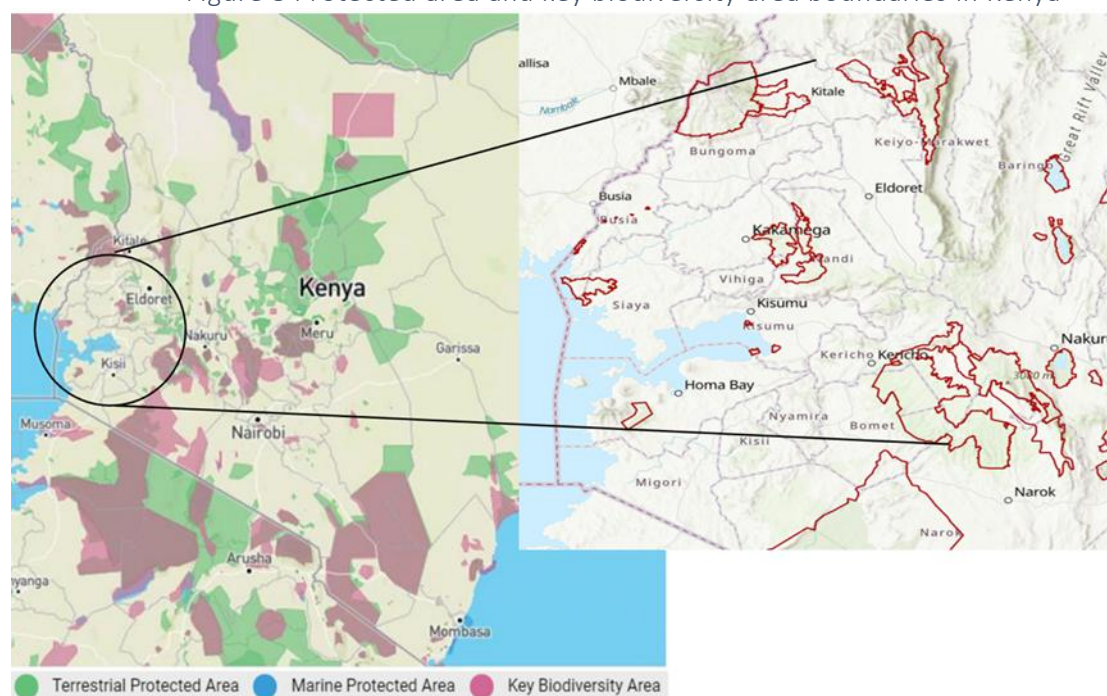


Lake Victoria and its tributary rivers are a major biodiversity hot spot, in their report Van Soesbergen et.al (2018), indicates that the LVB besides being critical habitat for multiple fish species, it is also important for other taxa such as aquatic plants, reptiles, amphibians, and mammals. There are at least 234 fish species, 135 aquatic plant species, 50 freshwater mollusk species, and five freshwater crab species native to the LVB. In addition, there are five species of freshwater turtles, aquatic snakes, monitor lizard, the Nile crocodile, three species of otters, and hippopotamus.

According to Kenya National Biodiversity Threat Assessment (IUCN-BIODEV2030, 2020), Kenya has 73 identified Key Biodiversity Areas (KBAs) sites of which 67 are Important Bird Areas (IBA) and 6 are Alliance for Zero Extinction Sites (AZEs), with a further 47 potential KBA sites. Since 1980, there has been a 7.5% increase in the coverage of KBAs within PAs in Kenya (IBAT, 2020). IUCN-BIODEV2030 report indicates that, between 2004 and 2018, the 'State' (which measures bird population trends, and extent and quality of habitat within KBAs), remained stable. Thus, there were no recorded species extinctions, de-gazettement of PAs that are KBAs, and new KBA sites were identified. However, KBAs were subjected to increasing pressure from illegal tree harvesting, poaching, human encroachment, increased infrastructure development, and land use conversion (those KBAs lacking formal protection were the most impacted).

²³² The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Figure 8 Protected area and key biodiversity area boundaries in Kenya^[1]



KBAs in the Project Area

The following subsection describes the most important KBAs in the Project area^[2]:

- Mount Elgon (112,916 ha):** A terrestrial and freshwater system, with an altitude between 2,100-4,280 meters above sea level. The Mount Elgon forest has suffered severely from encroachment on the lower slopes: very little lower-altitude forest remains. The forests contain valuable timber, in particular *Olea capensis*. Illegal timber extraction and (more recently) licensed commercial logging by Rai-Ply, an Eldoret-based company, have done tremendous damage to the forest structure. Mount Elgon faces similar management problems to most other forests in Kenya, with the Forest Department finding difficulties in controlling fuelwood collection, fires set by honey hunters, collection of poles, debarking of medicinal trees, and forest grazing. The moorland has also suffered damage from fires set during drought periods, though there is evidence that some of the vegetation communities there are fire-maintained. The wooded grasslands on the north-east are an unprotected and undervalued habitat whose special birds are in imminent danger of disappearing, as expansion of cultivation and destruction of habitat continue apace. The mountain lies across the international border, which has made it difficult to control the poaching of large animals on the Kenyan side, and organized smuggling has at times created a security problem, deterring visitors to the National Park. Surveys are needed to: establish the status of *Macronyx sharpei* on the moorland, and the effects of seasonal burning on this species; map out the wooded grassland and assess the populations of Sudan–Guinea Savanna biome species; and assess the current status of all the forest birds. An integrated management plan for Mount Elgon is needed that will take into account the conservation requirements of all its habitats, develop the mountain's enormous potential for ecotourism, and put the interests of local people and sustainable use of resources above destructive, short-term exploitation. The main threats to this area

remain: Climate change and severe weather; shifting agriculture; small-holder farming; agro-industry farming and nomadic grazing.

- **Mau Forest Complex (275,512 ha):** It is a terrestrial and freshwater system, with an altitude of 1,800 – 3,000 meters above sea level. This forest complex covers a substantial area of the south-western highlands of Kenya, and probably represents the largest remaining near-continuous block of montane indigenous forest in East Africa. The forests cloak the western slopes, and part of the crest, of the Mau Escarpment, a block of raised land that forms the western wall of the Gregory Rift Valley, rising steeply from the floor and sloping away more gradually to the west. The Mau has deep, fertile, volcanic soils, and rainfall in places is among the highest in Kenya. The surrounding areas are intensively farmed, with human population densities about twice as high on the western side of the forest as on the east. Vegetation patterns are complex, main habitats include Montane Forest (forest) and Bamboo-montane (savanna). The most valuable parts of the Mau for bird conservation are the relatively intact forests of the lower parts of the South-western Mau, and the high montane forests on the eastern rim (small proportion of the forest). The main conservation problem in the Mau is that facing many Kenyan forests: increasing pressure on productive land from an expanding population. A particular complication in this case is the presence of the forest-dwelling Ogiek people, several thousand of whom have been evicted from the forest since the mid-1980s and are awaiting resettlement. The Ogiek may have used the forest's resources sustainably in the past, but their hunter-gatherer lifestyle was in direct conflict with forestry policy. Immigration of other ethnic groups to the eastern edge of the forest (particularly from the densely populated western borders) has added to the number of people expecting to be resettled, and increased the pressure on forest resources. Current use of the forest by local people includes illegal hunting, honey-gathering (forest trees are cut and debarked to construct hives), fuelwood collection and grazing. These activities, which might be carried out sustainably, are largely unregulated at present, causing further degradation and preventing degraded areas from recovering. Main threats remain: Livestock farming & ranching (mainly nomadic grazing), small-holder grazing, ranching or farming; construction/expansion of roads and railroads and gathering terrestrial plants.
- **Mau Narok – Molo grassland (75,053 ha):** A terrestrial system with an altitude of 2,700 to 3,100 meters above sea level. An extensive area of montane grassland along the crest of the Mau Escarpment, which forms the western wall of the central Rift Valley in Kenya. This high, open plateau runs for c.80 km south-east to north-west, and is bounded on each side (and partially interrupted) by the forests of the Mau forest complex (IBA KE051). The original vegetation is short grassland, with some heather and scrub on the ridges where the soil is deeper. The area has high potential for cultivated agriculture, and has gradually been settled and cultivated since the 1950s; it is now heavily populated, with a landscape severely modified by cultivation. Cereals are the major crops, and much grassland has been converted by ploughing and re-seeding with exotic species to provide better grazing for sheep. Kenya's unique montane grasslands have no formal protection. Main threats are related to: small-holder farming, nomadic grazing, gathering terrestrial plants, human intrusion (work and other activities), and soil erosion and sedimentation.
- **Kakamega Forest:** The forest lies in the Lake Victoria catchment, c.40 km north of Kisumu, and just east of the Nandi Escarpment that forms the edge of the central highlands. This forest is unique as it

contains many species found nowhere else in the country. The main habitats include forest (61-70%); artificial-terrestrial (1-10%) and grassland (21-30%). The forest holds a large population, several mammals, snakes, amphibians, butterflies (round 350 species are thought to occur, including at least one endemic species), unique and distinctive avifauna (including endemic taxa) and rich diversity of trees^[3]. Kakamega is a complex and fragmented forest, and one that has been under attack, from inside and out, for many years: logging for commercially valuable timber, and clear-felling of indigenous forest to make way for plantations; tea plantations (the 'Nyayo Tea Zones'), illegal tree-felling and charcoal burning, others. Continuing forest fragmentation and destruction in Kakamega appears to have taken its toll on the avifauna. Some forest species, such as *Ploceus tricolor*, have not been recorded for many years, and may now be locally extinct. A number of montane forest birds that formerly occurred here, such as *Tauraco hartlaubi* and *Campethera tullbergi*, seem to have disappeared. The Kenya Indigenous Forest Conservation Programme (KIFCON) developed an innovative conservation plan for Kakamega in the early 1990s, but this has never been implemented. The main threats include: small-holder farming; agro-industry farming, logging & wood harvesting, fishing & harvesting aquatic resources.

- **North Nandi Forest (11,371 ha):** A terrestrial system with an altitude of 1,700 to 2,130 meters above sea level. This area is a strip of high-canopy forest on the edge of the Nandi escarpment, above and immediately east of Kakamega forest. Drainage is mainly eastwards into the Kigwal and Kimondi river systems, which flow through the South Nandi forest and westwards into the Yala river and Lake Victoria. Biogeographically, North Nandi is transitional between the lowland forests of West and Central Africa (the easternmost outlier of which is Kakamega) and the montane forests of the central Kenya highlands. It is higher in altitude than Kakamega and the vegetation is floristically less diverse. Common trees include *Diospyros abyssinica*, *Croton macrostachyus*, *Syzgium guineense* and *Celtis africana*, with a dense undergrowth of *Acanthus* and *Brillantaisia*. North Nandi is an unusual and important forest. It contains many bird species that have very limited ranges in Kenya: a number occur only here and in Kakamega. The forest remains a relatively narrow strip, under severe pressure from illegal timber extraction, charcoal burning, forest grazing of livestock, and unsustainable removal of forest products (firewood, honey and medicinal plants). Main threats to this KBA remain: small-holder farming; agro-industry farming and small holder grazing, ranching and farming (livestock).
- **South Nandi Forest (17,110 ha):** A terrestrial system with an altitude of 1,700 to 2,130 meters above sea level. This area is a mid-elevation forest lying just west of Kapsabet town and south of the main Kapsabet–Kaimosi road. South Nandi was once contiguous with Kakamega forest, and the two forests are still no more than a few kilometres apart at their closest points. South Nandi is one of the most threatened IBAs in Kenya. The forest is drained by the Kimondi and Sirua rivers, which merge to form the Yala river flowing into Lake Victoria. The landscape is gently undulating and underlain by granitic and basement complex rocks, which weather to give deep, well-drained, moderately fertile soils. The South Nandi area has high agricultural potential and human densities around it are also high, particularly to the west. A dense and rapidly growing human population surrounds the forest, and pressure on land is very high, illegal hunting takes place along with tree poaching. The logging operation is also intensive and appears very poorly managed, with enormous structural damage to the forest. Livestock grazing inside the forest occurs but may be a less serious problem than at Kakamega. Areas cleared for the development of tea plantations but not planted with tea are heavily

grazed, preventing forest regeneration. A proper management plan for the forest, produced with the whole-hearted involvement of both the Forest Department and Kenya Wildlife Service, and incorporating the needs of local people as opposed to industrial timber companies, is urgently needed. Main threats to this KBA remain small holder grazing, ranching and farming (livestock); extension/construction of roads and railroads; logging and wood harvesting; human intrusion (recreational activities, work and others); invasive non-native/alien species.

- **Cherengani Hills (105,757 ha):** It is a terrestrial and freshwater system, with an altitude from 2,000 to 3,365 meters above sea level. The Cherangani Hills, an old fault-block formation of non-volcanic origin, form an undulating upland plateau on the western edge of the Rift Valley. The hills are largely covered by a series of Forest Reserves: Kapkanyar, Kapolet and Kiptaberr Forest Reserves together form a large western block of forest (totaling 20,000 ha); to the east, the Forest Reserves of Lelan, Embotut, Kerrer, Kaisungor, Toropket, Chemurokoi, Kupkunurr, Cheboit, Sogotio and Kapchemutwa are less well connected. Apart from a large south-eastern block along the escarpment crest, the forests here are fragmented and separated by extensive natural grasslands, scrub and (especially in the central part) farmland. The Cherangani forests are important for water catchment and sit astride the watershed between the Lake Victoria and Lake Turkana basins. Streams to the west of the watershed feed the Nzoia river system, which flows into Lake Victoria; streams to the east flow into the Kerio river system. The main forest conservation problems include: encroachment, degazettement for settlement, poaching of trees for building or charcoal burning, livestock grazing, and tree-felling by honey gatherers (for honey, or for manufacturing bee hives). Furthermore, Grazing is a major concern, especially in Kapkanyar, which borders land occupied by the pastoralist subgroup of the Pokot people. Hundreds of cattle are left to roam in the forest for the entire dry season period, causing enormous damage. Main ongoing threats include storm and flooding, shifting agriculture, nomadic grazing, hunting & collecting terrestrial animals, road extension/construction, logging and wood harvesting, invasive non-native/alien species, and soil erosion and sedimentation.
- **Sio Port Swamp (1,365):** It is a terrestrial and freshwater system, with an altitude of 1,130 meters above sea level. This site is a papyrus *Cyperus papyrus* swamp at the extreme north of the Kenyan section of Lake Victoria, on the Kenya/Uganda border. The site consists of mature, almost undisturbed, continuous papyrus stands, stretching from the mouth of the Sio River southwards for about 3.5 km along the lakeshore. Sio Port is an important site because of the size of the swamp and its relatively pristine condition. Like other papyrus swamps around Lake Victoria, it is increasingly threatened by unsustainable use and is in urgent need of better protection. Infestation by the exotic water-hyacinth *Eichhornia crassipes* in many parts of the lake has prevented fishermen from fishing, forcing them to seek alternative forms of livelihood and adding greatly to the human pressure on wetlands. Papyrus shows remarkable powers of regeneration, but excessive cutting for the local mat-making industry, combined with large-scale clearing for cultivating rice and other crops, could rapidly destroy this wetland. Main threats are related to climate change & severe weather (storms and floodings); hunting and collecting terrestrial animals, Fishing & harvesting aquatic resources, Invasive non-native/alien species/diseases; human intrusion (recreational activities); Livestock farming & ranching; small-holder farming and habitat shifting and alteration.

- **Yala Swamp complex (19,854 ha):** It is a terrestrial and freshwater system, with an altitude between 1200-1220 meters above sea level. The wetland is located in the delta of the Yala river, on the north-east shore of Lake Victoria. The site has three main components: the Yala swamp itself (currently c.6,500 ha after drainage of the eastern 20%); Lake Kanyaboli in the north-eastern corner; and Lake Sare, the most southerly of several outlets of the Yala river into Lake Victoria. The predominant vegetation is papyrus *Cyperus papyrus*, with *Phragmites Mauritianus* in shallower areas and swamp grasses around the periphery. A thick fringe of papyrus surrounds both Lake Kanyaboli and Lake Sare; in the case of Lake Sare, this merges with the main swamp. The Yala swamp complex is by far the largest papyrus swamp in the Kenyan sector of Lake Victoria, making up more than 90% of the total area of papyrus. The swamp acts as a natural filter for a variety of biocides and other agricultural pollutants from the surrounding catchment, and also effectively removes silt before the water enters Lake Victoria. The site supports an important local fishery for the Luo and Luhya people who live to its south and north, respectively. The area around the swamps is densely populated, and most people make a living from agriculture and fishing. Apart from drainage, major threats include water offtake for irrigation upriver, intensification of fertilizer and biocide inputs, and unsustainable exploitation of papyrus. Large-scale cutting, mainly for the mat-making industry, and extensive burning to open up land for cultivation are taking their toll on the swamp, despite the remarkable regenerative abilities of papyrus.
- **Koguta swamp (1,015 ha):** Terrestrial and freshwater system with an altitude between 1,130 meters above sea level. Koguta swamp is a wetland at the mouth of the Sondu-Miriu river, a few kilometers south-west of the Nyando river mouth on the shores of Lake Victoria. The vegetation consists mainly of reeds *Phragmites* spp. interspersed with patches of papyrus *Cyperus papyrus* and *Vossia cuspidata*. Koguta is flooded during the wet season, while during the dry season the area is heavily grazed and trampled by cattle and hippopotamus *Hippopotamus amphibius*. The site is almost inaccessible from the lakeward side due to dense mats of water-hyacinth *Eichhornia crassipes*. As in many parts of Lake Victoria, infestation by this exotic weed has prevented fishermen from fishing, forcing them to seek alternative forms of livelihood. This adds greatly to the human pressure on papyrus swamps and other wetlands. Unsustainable cutting of papyrus and overgrazing by cattle during the dry season when the water level recedes threatens Koguta. It requires formal protection, and a community conservation programme that will work towards controlled, sustainable use of the wetland. Main threats are storms and flooding, small-holder farming, agro-industry farming; hunting & collecting terrestrial animals; increase in fire frequency/intensity.
- **Kusa swamp (1,037 ha):** Terrestrial and freshwater system with an altitude between 1,130 meters above sea level. Kusa swamp, at the mouth of River Nyando, is a wetland at the easternmost end of Lake Victoria's Winam Gulf. Dense stands of papyrus *Cyperus papyrus* are fringed on the lakeward side by the water grass *Vossia cuspidata* and along the shore by reeds *Phragmites* spp. Kusa remains a sizeable enough papyrus swamp to be of conservation importance. However, uncontrolled cutting of papyrus by local residents and pollution and siltation from the Nyando river are serious threats. Though papyrus shows remarkable powers of regeneration, unsustainable cutting for the local mat-making industry has the potential to destroy the wetland. Local residents are also opening the swamp for rice farming. *Tragelaphus spekii*, though already rare, are hunted. The lakeward side is almost

choked by water-hyacinth *Eichhornia crassipes*. As in many parts of Lake Victoria, infestation by this exotic weed has prevented fishermen from fishing, forcing them to seek alternative forms of livelihood and adding greatly to the human pressure on wetlands.

- **Dunga swamp (502 ha):** Terrestrial and freshwater system with an altitude between 1,130 meters above sea level. Dunga (or Tako river mouth) is a wetland situated about 10 km south of Kisumu town on the shores of Winam Gulf, Lake Victoria. At the western limit is a beach, used as a major fish landing point. Papyrus *Cyperus papyrus* stands stretch south-eastwards along the shore from here for c.1.5 km, in a strip that varies in width from about 50 to 800 m. A number of streams drain into the lake through the swamp, the main one being Tako river. Dunga is close to a major town, and this puts particular strain on the wetland. Papyrus harvesting is often excessive and unsustainable. The incoming streams bring pollution in the form of sewage and solid wastes from nearby residential estates. Lake Victoria's papyrus swamps are under increasing pressure in general. Water-hyacinth *Eichhornia crassipes* has infested much of the Winam Gulf. By preventing fishermen from fishing, it forces them to seek other forms of livelihood. Often, the only alternative available is to harvest papyrus, or to clear it in order to cultivate crops. Dunga urgently requires formal protection, as it has no conservation status at present. Main threats are: residential and commercial development (housing and tourism); storms and floodings, small-holder farming, small-holder grazing, ranching or farming, industrial aquaculture, fishing harvesting, mining & quarrying, road expansion, invasive non-native/alien species/diseases and garbage and solid waste management.
- **Busia Grasslands (371 ha):** Terrestrial system with an altitude between 1130-1160 meters above sea level. This area comprises a chain of small grassland patches (some seasonally flooded) in western Kenya, including Mungatsi (36 ha), Matayo (210 ha), Sikoma (1 ha) and Malanga (3 ha). All the patches are surrounded by intensive agriculture, mainly maize and sugarcane, and are grazed by livestock. The tiny grassland patches in Busia District are under severe and immediate threat. Busia has a high human population density that is increasing very fast, and there is great pressure on land (e.g. conversion of grassland areas into sugar-cane plantations). Main threats are caused by expansion of commercial and industrial areas and the agro-industry farming.
- **Ruma National Park (10,048 ha):** Terrestrial system with an altitude between 1200-1600 meters above sea level. Is situated 10 km east of Lake Victoria in western Kenya, south-west of Homa Bay and east of the Gembe and Gwasi Hills. It lies on the flat floor of the Lambwe valley, bordered by the Kanyamaa escarpment to the south-east. The terrain is mainly rolling grassland, with tracts of open woodland and thickets dominated by species of *Acacia* and *Balanites*. The soil is largely 'black cotton' clay. The surrounding area is settled, with a mix of small-scale cultivation and grassy pastureland. Ruma represents a valuable island of natural habitat in a sea of human settlement. The surrounding population density is high, but people and their livestock avoid the Ruma area because of the presence of tsetse fly. Wildlife poaching along the boundaries has been reported in the past. Main threats remaining are caused by storms & floodings, increased fire frequency/intensity, human intrusion, and disturbance and invasive/ non-native/alien species/disease.

As highlighted above, several factors have led to the destruction of native and endemic biota specific to the Lake Victoria basin and in the KBAs in the project area. Deforestation and land-use change in particular, the conversion of natural land to agriculture are the main human activities that threaten

natural ecosystems, such as freshwater ecosystems leading to changes the composition and quantities of material load in rivers and streams; eutrophication; shifts in food chains; outbreaks of invasive species, among others. Lake Victoria eutrophication is severe, with agriculture estimated to be responsible for 22% of nitrogen and more than 50% of phosphorus loading^[4]. The intensification of agriculture and the increased use of pesticides have also led to the contamination of water with pesticide residues.

Assessment of the project's impact on biodiversity

The project is in line with the Kenya National Biodiversity Strategy and Action Plan (2020). This plan aims to maintain a clean and healthy environment with abundant biodiversity resources through community sensitization and empowerment. It promotes participatory management practices and the use of environmentally friendly techniques and technologies. The project also aligns with the Forest Conservation and Management Act (FCMA) of 2016 and the Environmental Management and Coordination Act of 1999.

Overall, the project is expected to have a predominantly positive impact on biodiversity. This will be achieved through the implementation of climate-resilient agricultural practices that support a transition towards more sustainable development. The project takes a holistic and integrated approach, focusing on climate-resilient agriculture and sustainable land management. It aims to build the capacities of local authorities, farmers, farmer cooperatives, and other stakeholders. By doing so, it will raise awareness of climate risk and vulnerability, promote best practices, and strengthen the resilience of local livelihoods and ecosystems. This includes the conservation and protection of both agro-biodiversity and biodiversity in other ecosystems.

The benefits of climate-resilient agricultural practices on biodiversity are numerous. They include soil protection from wind and water erosion through vegetative cover from cover crops and agroforestry. They also include improved soil nutrition from the use of green manure, compost, and integrated pest management practices that provide alternatives to harsh agrochemicals. Furthermore, such practices enhance the protective functions of ecosystems, making them more resilient to extreme climate-related hazards like flooding and droughts. Agroforestry also buffers micro-climates, and the promotion of local varieties and diverse production systems further contributes to the conservation of biodiversity. Additionally, the project interventions will not only improve production but also reduce pressure on surrounding ecosystems. By providing better production alternatives, the project will enhance local livelihoods on existing agricultural land.

However, considering the history of agricultural expansion into forested areas and biodiversity hotspots, it is crucial that the project team carefully monitors all biodiversity impacts and risks. Measures should be taken to avoid or mitigate these risks and ensure the robust safeguarding of biodiversity.

The following table provides an overview of potential impacts, and measures to be implemented to avoid or mitigate any adverse negative impacts or risks.

Overview of the project's impact on biodiversity

Component/ Activity	Impact on biodiversity	Mitigation measures
Component 1. Enabling local government support for adaptation and mitigation		

Activity 1.1.1	No risk	Ensure the mainstreaming of biodiversity throughout trainings, and raise awareness and build capacities on the project benefits and safeguards related to biodiversity.
Activity 1.1.2.	No risk	
Activity 1.1.3.	No risk	
Activity 1.1.4	No risk	
Activity 1.1.5.	No risk	
Activity 1.1.6.	No risk	
Component 2. Sustainable Resilient Agricultural Landscapes		
Activity 2.1.1.	This activity aims to have positive effects on biodiversity by encouraging sustainable climate-resilient landscape management. The assessment and characterization will be conducted in the project areas using the Land Degradation Surveillance Framework method and/or the Restoration Opportunities Assessment Model. These methods provide a biophysical baseline at the landscape level and assess processes that contribute to land degradation neutrality, including changes in land use and land cover. They also help prioritize restoration opportunities and activities. The information gathered will be used to assist counties in prioritizing sites and types of interventions.	To ensure the integration of biodiversity into climate-resilient and low-carbon agricultural landscape management strategies at both the county and regional level, it is important to raise awareness and enhance capacities regarding the benefits and safeguards associated with biodiversity. Additionally, it is crucial to collect baseline information on key biodiversity areas located within and in close proximity to the counties.
Activity 2.1.2.	Each county will implement various actions, such as reforestation, conservation, restoration, afforestation, watershed management, forest landscape restoration, and improved land management, in degraded hotspots covering 200 hectares per county. In total, 12,800 hectares will be covered. However, it is important to carefully screen the regional climate-resilient and low-carbon agricultural landscape management strategies and activities to ensure that there are no negative impacts on biodiversity resulting from the restoration, conservation, and afforestation efforts. The risk of such impacts is considered relatively low, as the strategies and activities will be developed in close collaboration with local communities. After 6 years, the counties will conduct a new survey and assessment of the landscape to fully document the results and inform the next iteration of the strategy.	Ensure that climate-resilient and low-carbon agricultural landscape management strategies do not comprise activities that would have an adverse impact on biodiversity.
Component 3 - Resilient livelihoods		
Activity 3.1.1.	These activity is anticipated to primarily benefit biodiversity by advocating for sustainable, climate-resilient agricultural practices. These practices aim to reduce pesticide usage, promote agrobiodiversity, support local seed systems, and implement soil restoration techniques, thereby maintaining or enhancing ecosystem services.	Ensure biodiversity mainstreaming throughout trainings, events and fora, and raise awareness and build capacities on best practices to generate biodiversity-related benefits from climate-resilient
Activity 3.1.2.		

		agriculture and emphasize key practices to safeguard biodiversity.
Activity 3.1.3.	No risk	
Activity 3.1.4.	No risk	
Component 4 - Scaling through CRLCSA market and finance		
Activity 4.1.1.	No risk	Ensure biodiversity mainstreaming throughout trainings, events and fora, and raise awareness and build capacities on best practices to generate biodiversity-related benefits from climate-resilient agriculture and emphasize key practices to safeguard biodiversity. Recommend measures for financial products and insurance to consider biodiversity within screening, monitoring and reporting.
Activity 4.1.2.	No risk	
Activity 4.2.1.	No risk	
Activity 4.2.2.	No risk	
Activity 4.2.3.	No risk	

Source: Authors' own elaboration.

A detailed analysis of potential negative impacts will be carried out in the elaboration of the project's ESMPs, particularly in areas where protected areas and areas of significant biodiversity value are identified. This is crucial because specific implementation areas will be determined during project implementation, and therefore, careful attention must be given to ensuring that the selection process considers biodiversity and complies with the planning framework and the ESMF in general. Screening will be conducted using FAO's environmental and social screening checklist, which will help identify sub-activities that require mitigation measures. For sub-project activities that require mitigation measures, an environmental and social management plan will be developed and monitored throughout the implementation phase.

^[1] https://www.ibat-alliance.org/country_profiles/KEN

^[2] Unless stated otherwise, the description of the KBAs was elaborated based on the information obtained from “Key Biodiversity Areas Partnership (2023) Key Biodiversity Areas factsheet”, available at:

<https://www.keybiodiversityareas.org/sites/search>

^[3] <https://whc.unesco.org/en/tentativelists/5508/>

^[4] (Soesbergen, Sassen, Kimsey, & Samantha Hill, 2018)

Appendix 11: Project approach to conflict and risk

FAO's commitment to integrating conflict resolution and peace-building

FAO is committed to integrating conflict resolution and peace-building into its work. Agriculture, natural resources, ecosystems, food security, and nutrition can either promote peace or contribute to conflict, crisis, and recovery. In fragile, conflict- and violence-affected (FCV) contexts, FAO ensures that its activities do not contribute to divisions, disputes, or violent conflicts, and that they do no harm. Whenever possible, FAO identifies and supports positive contributions to local peace that align with its mandate. This commitment was first formalized in 2018 in the [Corporate Framework to Support Sustainable Peace in the Context of Agenda 2030](#).

Conflicts and fragility in Kenya

Kenya is ranked 35th on the Fragile State Index, with a score of 87.8, indicating a decrease compared to the 2018 index of 97.4^[1]. According to the Notre Dame Global Adaptation Initiative (ND-GAIN), Kenya is ranked 150th in terms of vulnerability and preparedness, with an index of 0.51^[2].

Compared to other countries in Sub-Saharan Africa, Kenya is not classified as a "Fragile and Conflict-affected country" (FCV) by the World Bank in 2024^[3]. However, despite a decline in al-Shabaab activity since October 2023, there has been a resurgence in March 2024 with an increase in violent events, including battles with state forces and the planting of IEDs. These incidents are mainly observed in the eastern part of the country near the border with Somalia and not in the counties included in this project^[4].

Furthermore, this project acknowledges that climate change is a driver of social conflict in Kenya. Challenges such as widespread poverty, unemployment, limited access to resources, and social inequalities are worsened by climate change. This poses a threat to overall peace and can contribute to conflicts such as political violence, community and chieftaincy disputes, ethnic intolerance, and others.

Handling conflict risk during the project implementation

The *"Transforming Livelihoods through Climate Resilient, Low Carbon, Sustainable Agricultural Value Chains in the Lake Region Economic Bloc, Kenya"* project is designed to catalyze a broad shift towards a new sustainable equilibrium for ecosystems, livelihoods, and agriculture in the LREB/LVB. This shift aims to move from a state of high climate vulnerability to an alternative paradigm that promotes climate-resilient, low-carbon, environmentally sustainable, and financially viable agriculture value chains. This shift will ultimately benefit people and communities.

There are potential conflict risks associated with Output 2: Reduced emissions from and increased adaptive capacity of the AFOLU sector. These risks arise from (i) the selection of degraded hotspots to be restored or conserved, (ii) the selection of participants to develop climate-resilient and low-carbon agricultural landscape management strategies at each county, and (iii) the implementation of these plans, which could lead to conflicts. Additionally, conflicts may arise around Output 3: Increased smallholders' climate resilience and production of commodities using climate-resilient, low-carbon technologies. These conflicts could be triggered by (iv) the selection of farmers to access Farmer Field Schools, (v) the selection

of Farmer Cooperatives to participate in the project activities, and (vi) the distribution and access to inputs and equipment for climate-resilient, low-carbon technologies.

The project will address any conflicts that may occur within and among communities in the targeted counties by investing in conflict prevention. Conflict assessment, prevention, and management are key components of the project design. The project will employ a community-based and participatory approach known as Integrated Landscape Management for land planning and restoration across communities. This approach will ensure active community engagement, including women and youth, and promote consensus-building in activities 2.1.1, 2.1.2, 3.1.1, and 3.1.2. Women's groups, traditional leaders, local governments, and other community structures with mediation capacities will be involved in identifying restoration areas and selecting climate-resilient, low-carbon practices and technologies for dissemination through Farmer Field Schools.

Conclusion

In recent years, FAO has developed corporate tools, guidance, and training on context analysis, conflict sensitivity, and sustaining peace. These guides and tools have been jointly developed with Interpeace, a global peace-building organization, after extensive field-testing and feedback. FAO plays a leading role in UN-wide initiatives that combine climate change and peace-building efforts. For example, there is the 2023 thematic review on climate security and peace-building, which can be found at https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/climate_security_tr_web_final_april10.pdf.

This equips FAO with the capacities and tools necessary to ensure business continuity and adaptability in the face of external political or social conflict risks that may arise during project implementation.

^[1] Fund for Peace, 2024. See Kenya database: <https://fragilestatesindex.org/country-data/>

^[2] <https://gain-new.crc.nd.edu/country/malawi>

^[3] <https://thedocs.worldbank.org/en/doc/608a53dd83f21ef6712b5dfef050b00b-0090082023/original/FCSListFY24-final.pdf>. For the methodology used by the World Bank, see <https://thedocs.worldbank.org/en/doc/fb0f93e8e3375803bce211ab1218ef2a-0090082023/original/Classification-of-Fragility-and-Conflict-Situations-FY24.pdf>

^[4] <https://acleddata.com/2024/04/08/regional-overview-africa-march-2024/>

Appendix 12: Labour Management Plan (indicative outline)

Introduction

The Labour Management Procedure (LMP) is designed to ensure the project alignment with FAO's commitment to fostering decent work in sustainable food and agriculture, as outlined in FAO's Environmental and Social Standard on Decent Work (ESS7) of the Environmental and Social Management Guidelines (ESMG).

Beyond complying with ESS7 of ESGM, the LMP should align with Kenya's national legislation, regulations, and relevant international guidelines. The LMP purpose is to guide the planning and implementation of labor-related safeguards for the *“Transforming Livelihoods through Climate Resilient, Low Carbon, Sustainable Agricultural Value Chains in the Lake Region Economic Bloc, Kenya”* project, addressing any adverse impacts related to decent work and labor practices.

This section should offer a concise overview of the project, detailing its objectives, expected outcomes, key results by geographical area, timeline, implementation arrangements, and the key risks triggering the application of ESS7.

Common risks in agricultural projects encompass poor working conditions, forced labor, child labor, occupational health and safety (OHS) issues, and an influx of project workers. During the risk screening process, additional potential impacts may emerge, which the LMP should consider in its development.

Labour Use Overview

Types of labour expected to be involved in the project activities during the implementation phase include: direct workers (employed or engaged directly by FAO and Agriterro as co-executing entities), contracted workers (employed or engaged by third parties), and primary supply workers (employed or engaged by primary suppliers). Full-time, part-time, temporary, seasonal, and migrant workers are the different types of employment considered under these categories.

When describing the workers' profiles, the following information will be included:

- Number of workers per type (as previously described);
- Timing: Specify when the workers will be engaged in the project. It will also include information on the planned activities and/or project phases.
- Contract type: Indicate the type of employment contract for each worker.

In the event that workers accommodation is present, this section will provide a description of the accommodation arrangements and indicate their location in relation to the project implementation area and local communities. It will also specify the number of workers residing in the accommodation and the duration of their stay, among other details.

Description of Key Potential Risks and Migration Measures

This section will describe the potential risks that may lead to the application of ESS7 of FESM, as well as the corresponding mitigation measures. These risks may include security risks, forced labor, child labor, gender-based violence and sexual harassment, occupational health and safety (OHS) risks related to the spread of communicable diseases (such as COVID-19 or similar situations), and risks related to natural disasters, among others.

The necessary information can be presented in a table format, as shown in the example below. The table should be organized by project activity, type of risk/impact, parties affected, and mitigation measures. For the mitigation measures, please indicate the estimated budget (if available), the responsible implementing party, and the implementation timeline. If applicable, include any additional information regarding technical expertise or support required.

Project activity	Key risks/ impacts	Type of worker affected	Mitigation measures	Implementation of mitigation measures			Monitoring		
				Budget	Responsible party	Timeline	Budget (if not allocated under implementation)	Responsible party	Timeline/frequency

For primary supply workers, this section will indicate how the project will ensure the application of ESS4 and/or ESS5 of FESM requirements and which instruments will be in place to ensure suppliers' application of such requirements (this may include contractual clauses, for example). It will also describe how the application will be monitored.

Legal Framework

This section will provide an overview of the main elements of national and international labor regulations that pertain to the risks identified in section 3. It will also ensure that the legal framework is linked with the project description and the types of employment that are applicable to the project.

The requirements and restrictions that are applicable under the relevant labor laws and regulations often address issues such as women's employment and gender discrimination (including gender-based violence), minors and child labor (it is necessary to provide a description of what the host government considers as the working age), the migrant workforce, types of employment (which include working hours, overtime, wages and deductions, dismissal, and freedom of organization), occupational health and safety (OHS), and so on.

The legal framework may be presented in a table format, organized by the type of legal requirement (law), and/or in accordance with the FAO ESS4 and/or ESS5 requirements of the FESM.

Workplace Grievance Management

The grievance mechanism for labour related risks may utilize existing project's grievance mechanisms, which is recommended. However, these mechanisms must be properly designed and implemented, promptly address concerns, and be easily accessible and understandable for the project's workforce. If necessary, the existing mechanisms may be supplemented with project-specific arrangements. For more information on the structure, functioning, and accessibility of the project's grievance mechanism, please refer to the project GRM guidance and template in the Stakeholder Engagement Guidance Note.

It is important to note that confidentiality will be integrated in the grievance redress mechanism, especially in cases of gender-based violence, and more generally to reduce the risk of retaliation.

The section will also provide a description of how the project's grievance mechanism will function and how it will ensure accessibility. Additionally, it will explain how confidentiality and protection from reprisals will be guaranteed for individuals filing complaints.

Monitoring an Implementation

This section will outline the responsibilities pertaining to the implementation of labor management good practices, as defined by the Employment Standard System 4 (ESS4) and Employment Standard System 5 (ESS5) of the Field and Environmental Safety Manual (FESM) and their corresponding General Notices (GNs), within the scope of this project. It will specify the implementation partners and their respective roles, as well as the monitoring and enforcement of LMP requirements. Additionally, please consider any budgetary implications.

This information may be presented in a table format.

It will also include engagement and management of project workers, contractors/sub-contractors (including compliance with labor management requirements from FAO), Occupational Health and Safety (OHS), etc., as applicable to the specific project.

The section will contain information regarding worker training.

Appendix 13: Example of Terms of References for Environmental and Social Safeguards Specialist

I. General Objectives of the Assignment

The following are terms of reference for the preparation and monitoring of safeguards instruments (risk mitigation plans) for the GCF-FAO Project *“Transforming Livelihoods through Climate Resilient, Low Carbon, Sustainable Agricultural Value Chains in the Lake Region Economic Bloc, Kenya”*. As per the Project risk category and guidance received by the ESM Unit, the instruments to be prepared are: the project Environmental and Social Management Plans (ESMP), implementation safeguards documents, an Indigenous Peoples Plan, etc. These will inform FAO's approach to environmental and social management issues to be adopted under the Project (which is described above).

The main objective of this assignment is to develop, implement and monitor the above-mentioned risk mitigation plans. The assignment includes the collection and analysis of primary and secondary data, information and materials. This shall provide clear, comprehensive and practical guidance to the FAO on integrating an environmental/social due diligence process into the project implementation.

After the completion of the assignment, FAO should be knowledgeable on the key due diligence issues to be expected for the project, and have the analytical capabilities and capacity to manage them in line with international good practice.

II. Specific Tasks

The consultant is encouraged to use [FAO's templates](#) for the risk management plans. In any case, the instruments should cover the scope of the FAO template. The consultant should contact ESM-unit@fao.org for further guidance on how to apply FAO's Environmental and Social Management Guideline.

The objective of the preparation of an comprehensive project ESMP and implementation safeguards documents is to ensure sufficient guidance is provided to FAO in the selection, preparation and implementation of project's activities in order to avoid or minimize environmental and social risks and negative impacts and enhance the environmental and social performance. This will be accomplished through the development and application of proper selection criteria for activities, planning that takes into account environmental and social criteria, sound implementation and monitoring, and disclosure, consultation and feedback. To achieve this objective and with the support of FAO the consultant/s will carry out the following tasks through research, interviews, field visits and teleworking:

- Based on a detailed description of the project, develop and provide guidance on environmental and social criteria to be used during the identification and selection of priority activities. Also develop a list of activities and potential activities not recommendable for support, due to their poor environmental or social performance.
- Compile a summary of key domestic legislative, regulatory and administrative regimes in each of the project countries, within which the project will operate, with a focus on requirements that will apply to the planning, approval and implementation of activities; research and summarize

regional agreements and treaties that are relevant to project planning and implementation, as well as environmental management and due diligence.

- Establish a clear understanding of the institutional requirements, roles and responsibilities for adopting and implementing the ESMP and implementation safeguards documents. Importantly, this should include a thorough review of the authority and capability of institutions at different levels (e.g. local, district, governorate and national) and their capacity to manage and monitor ESMP implementation.
- Identify all relevant potential environmental risks and social concerns that may arise as a result of the project;
- Propose realistic and effective arrangements for FAO to develop the capacity to manage environmental and social due diligence processes and activities in the project; propose reporting lines, review and approval functions; identify the required resources and technical assistance measures to establish and maintain capacity for the project duration and beyond; develop a process (incl. timeline, budget, organizational requirements, required trainer profiles and expertise) for building and enhancing the capacity of the institutions responsible for implementing the ESMP.
- Define the requirements for technical assistance to FAO, civil society organizations (CSO), service providers and public sector institutions to implement, manage, supervise, observe or support the implementation of the ESMP.