Integrated Landscape Management for conservation and restoration of the Mt. Elgon Ecosystem in Western Kenya

Part I: Project Information

Name of Parent Program
Food Systems, Land Use and Restoration (FOLUR) Impact Program

GEF ID
10598

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
  CBIT **No**
  NGI **No**

Project Title
Integrated Landscape Management for conservation and restoration of the Mt. Elgon Ecosystem in Western Kenya

Countries
Kenya

Agency(ies)
FAO

Other Executing Partner(s)
Kenya Forestry Service

Executing Partner Type
Government

GEF Focal Area
Multi Focal Area

Taxonomy

Focal Areas, Land Degradation, Land Degradation Neutrality, Land Cover and Land cover change, Land Productivity, Carbon stocks above or below ground, Sustainable Land Management, Sustainable Livelihoods, Improved Soil and Water Management Techniques, Community-Based Natural Resource Management, Sustainable Agriculture, Income Generating Activities, Integrated and Cross-sectoral approach, Restoration and Rehabilitation of Degraded Lands, Biodiversity, Mainstreaming, Ceritification - International Standards, Agriculture and agrobiodiversity, Influencing models, Demonstrate innovative approache, Deploy innovative financial instruments, Convene multi-stakeholder alliances, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Stakeholders, Indigenous Peoples, Beneficiaries, Local Communities, Communications, Strategic Communications, Behavior change, Public Campaigns, Awareness Raising, Civil Society, Non-Governmental Organization, Community Based Organization, Academia, Private Sector, SMEs, Financial intermediaries and market facilitators, Non-Grant Pilot, Individuals/Entrepreneurs, Type of Engagement, Participation, Partnership, Consultation, Information Dissemination, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Sex-disaggregated indicators, Women groups, Gender results areas, Knowledge Generation and Exchange, Capacity Development, Access to benefits and services, Participation and leadership, Integrated Programs, Food Systems, Land Use and Restoration, Sustainable Food Systems, Landscape Restoration, Deforestation-free Sourcing, Smallholder Farming, Integrated Landscapes, Comprehensive Land Use Planning, Sustainable Commodity Production, Food Value Chains, Capacity, Knowledge and Research, Learning, Adaptive management, Theory of change, Indicators to measure change, Knowledge Exchange, Peer-to-Peer, Conference, North-South, South-South, Twinning, Field Visit, Innovation, Knowledge Generation, Seminar, Workshop, Training

Sector
AFOLU

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 1

Climate Change Adaptation
Climate Change Adaptation 1

Submission Date
3/10/2022

Expected Implementation Start
6/1/2022

Expected Completion Date
5/31/2027

Duration

60In Months

Agency Fee($)

481,913.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
IP FOLU	Transformation of food systems through sustainable production, reduced deforestation and land degradation from commodity supply chains, and increased landscape restoration.	GET	5,354,587.00	46,506,320.00
		Total Project Cost($)	**5,354,587.00**	**46,506,320.00**

B. Project description summary

Project Objective

To transform coffee and staple food production systems through integrated landscape management for the conservation and restoration of Mt. Elgon Ecosystem

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
1. Development of integrated landscape management systems	Technical Assistance	Outcome 1.1 Mt. Elgon landscape managed sustainably with ILM plans under implementation. Indicators: - 178,880 hectares of landscape covered by 4 ILM plans, informed by inclusive multi-stakeholders dialogue. - 5 effective multi-stakeholder platforms operational to promote ILM - At least 2 gender-responsive policy frameworks updated/developed supporting ILM	Output 1.1.1: Multi-stakeholders dialogue and County Environment Committees strengthened to harmonize and influence policies, actions, and catalyze and scale-up green investments. Output 1.1.2: Capacity building programs implemented to support inclusive and equitable participatory development and implementation of ILM Output 1.1.3: Integrated participatory landscape management plans developed in the Mt. Elgon landscape.	GET	747,874.00	10,420,612.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
2. Promotion of sustainable food production practices and responsible value chains	Investment	**Outcome 2.1** Improved efficiency and sustainability of inclusive and equitable coffee and maize production systems. Indicators: - 43,000 farmers (at least 30 % women) benefited from training and access to services to support sustainable coffee and maize production and marketing - 50,000 hectares of landscapes under improved practices. - At least 1,000 hectares of coffee farms in the process of certification - At least 30% of increase in coffee and maize yield per tree/hectare for smallholder farmers by the end of the project - 40 entrepreneurs/ community groups (50% women, youth, Ogiek community) supported through small grants to develop Nature-based enterprises for economic empowerment and livelihood	Output 2.1.1: Inclusive and equitable capacity development programs implemented for smallholder farmers, cooperatives and other value chain actors to promote sustainable coffee and maize production. Output 2.1.2: Innovative Business hubs established to promote market access and service delivery to smallholder farmers. Output 2.1.3: Sustainable coffee standards, certification and traceability systems developed and promoted with innovative incentive mechanisms. Output 2.1.4: Gender responsive incentive mechanisms established to promote sustainable coffee value chain development. Output 2.1.5: Capacities of entrepreneurs/community groups	GET	2,167,213. 00	19,861,125. 00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
3. Conservation and restoration of natural habitat	Investment	Outcome 3.1 Increased Mt Elgon landscape area under conservation and restoration. Indicators: - 10,000 hectares of degraded farmland and forest under restoration/rehabilitation and improved management. - 8,201,468 metric tons of CO2e of GHG Emissions Mitigated - 10,000 men and women (at least 30%) trained and engaged in restoration planning, implementation and monitoring	Output 3.1.1: Capacity of county and community-level institutions for conservation, restoration and rehabilitation of degraded lands and forest habitats strengthened in both degraded forest and agricultural landscapes. Output 3.1.2: Highly degraded forest sites are restored and sustainably managed. Output 3.1.3: Highly degraded agricultural lands are restored. Output 3.1.4: Sustainable and innovative financing mechanisms identified and piloted for conservation and restoration.	GET	1,536,207.00	9,283,686.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
4. Project Coordination, Collaboration, Communication and M&E	Technical Assistance	Outcome 4.1 Effective knowledge management and M&E supporting scale-up and impact at national and global level Indicators: - Project M&E system operational - At least 25 knowledge products and tools shared and/or adopted from the Global FOLUR Platform, regional and national platforms. - Targeted technical support from Global FOLUR Platform to strengthen public-private dialogue on policies, practices and financing. - At least 1,000 people reached through Transboundary Knowledge sharing platform	Output 4.1.1: Gender-responsive knowledge products, tools and approaches developed and shared through the FOLUR IP Global platform and other relevant value chain platforms such as Kenya Coffee Platform. Output 4.1.2: Effective M&E system established for the project Output 4.1.3: Transboundary integrated knowledge sharing system established for the Kenyan and the Ugandan Mt. Elgon landscape	GET	738,879.00	5,211,614.00
				Sub Total ($)	**5,190,173.00**	**44,777,037.00**

Project Management Cost (PMC)

Project Management Cost (PMC)

	GET	164,414.00	1,729,283.00
	Sub Total($)	**164,414.00**	**1,729,283.00**
	Total Project Cost($)	**5,354,587.00**	**46,506,320.00**

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Bungoma County	In-kind	Recurrent expenditures	10,635,343.00
Recipient Country Government	Trans Nzoia County	In-kind	Recurrent expenditures	10,379,254.00
Recipient Country Government	Kenya Water Towers Agency	In-kind	Recurrent expenditures	3,082,000.00
Recipient Country Government	Kenya Forest Service	In-kind	Recurrent expenditures	5,288,317.00
Recipient Country Government	Kenya Agricultural and Livestock Research Organization	In-kind	Recurrent expenditures	6,109,961.00
Private Sector	Coffee Cooperatives	In-kind	Recurrent expenditures	2,678,200.00
GEF Agency	FAO	Grant	Investment mobilized	7,155,860.00
Civil Society Organization	E4IMPACT Foundation	In-kind	Recurrent expenditures	1,177,385.00
			Total Co-Financing($)	**46,506,320.00**

Describe how any "Investment Mobilized" was identified

Investment mobilized from FAO represents grants for the land governance and programme and Forest and Farm Facility programme in Kenya. E4IMPACT as well has received funding to implement ARABIKA project which is targeting project site area. Additional co-financing, especially from key private sector stakeholders, will be concretized during project implementation.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
FAO	GET	Kenya	Biodiversity	BD STAR Allocation	2,181,078	196,297	2,377,375.00
FAO	GET	Kenya	Land Degradation	LD STAR Allocation	1,338,647	120,478	1,459,125.00
FAO	GET	Kenya	Multi Focal Area	IP FOLU Set-Aside	1,834,862	165,138	2,000,000.00
				Total Grant Resources($)	**5,354,587.00**	**481,913.00**	**5,836,500.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required   **true**

PPG Amount ($)

150,000

PPG Agency Fee ($)

13,500

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
FAO	GET	Kenya	Biodiversity	BD STAR Allocation	112,500	10,125	**122,625.00**
FAO	GET	Kenya	Land Degradation	LD STAR Allocation	37,500	3,375	**40,875.00**
				Total Project Costs($)	**150,000.00**	**13,500.00**	**163,500.00**

Core Indicators

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	10000.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	3,000.00		

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	7,000.00		

Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	50000.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	20,000.00		

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	30,000.00		

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	0	8201468	0	0
Expected metric tons of CO?e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)		8,201,468		
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting		2022		
Duration of accounting		20		

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)				
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		30,000		
Male		30,000		
Total	0	60000	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Project Justification

1a. Project Description

1) Global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

Global context

1. Kenya is a lower middle-income country with great geographic and topographic diversity where the agricultural sector plays a major role in the country?s economy. Agriculture is the second largest contributor to Kenya?s gross domestic product (GDP) after the service sector and employs more than 40 percent of the total population (21 million Kenyans) and more than 70 percent of Kenya?s rural population. The sector accounts for 65 percent of the export earnings, and provides livelihood sources (employment, income and food security needs) for more than 80 percent of the Kenyan population. Smallholder farmers play a significant role in the overall agricultural production accounting for 78 percent of total production in the country.

2. Kenya ranks among the leading producers of several commodities in Africa and globally. The country is the 4th largest producer of coffee in Africa and 16th in the world. It also ranks as the 4th largest producer of maize in Africa. Kenyan coffee is regarded as one of the best in the world, characterized by its rich flavor.

3. Unfortunately the unsustainable and inefficient production of these commodities is also contributing to the degradation of Kenya?s important ecosystems. It is for this reason that Kenya joined the Food Systems, Land Use and Restoration (FOLUR) Impact Program (IP) of GEF, to address barriers to the development of sustainable and inclusive coffee and maize systems.

Environmental context

4. Kenya can be divided into eight eco-climatic zones which are shaped by rainfall, temperature and evapotranspiration, which affect vegetation, land-use and agricultural potential.

Biome/ Ecosystem	Area (%)	Major geological structure	Major Soils	Landform	Average rainfall (mm)		Average temperature (ºC)		Population density/ km²
					Min.	Max.	Min.	Max.	
Forest	2.7	Pyroclastic and ultrabasic igneous	Eutricplanosols, mol-licandosols, and humicnitisols	High-gradient montane, plain and ridges	600	2 400	14	28	50
Woodland	3.2	Marine and ultrabasic igneous	Eutricplanosols	Plain, high-gradient hills and mountains	260	2 200	14	29	20
Shrubland	22.3	Marine and ultrabasic igneous, Gneiss, mignetite , pyroclastic, sandstone	Gleyicsolonetz, haplicsolonetz and rhodicferrasols, Calcaricregosols, ferralicsolonchaks	Plain, high-gradient hills and mountains, plateau, and medium gradient mountains	250-270	1 900	14-16	29-32	10-30
Grassland/ Savannah	47.1	Gneiss, magnetite and sandstone	Calcaricregosols, calcic solonetz and haplicsolonetz	Plain, plateau, and high gradient mountains	200	1 900	18	32	5
Desert/Dunes/ Bare	1.0	Basalt and clastic sediment	Calcaricregisols, calcic solonetz and ferralics-olonchaks	Plain	200	2 000	18	33	5
Waterbodies/ Wetland	4.5	Pyroclastic and limestone other carbonate rocks-Sandstone, olian and fluvial	Haplicsolonetz, eutric-fluvials and eutricver-tisols	Plain; plain and ridges	200	1 600	14-17	29-33	10-30
Cropland	19.2	Gneiss, mignetite	Rhodicferralsols and humicnitisols	Plain, ridges, and medium-gradient hills	250	2 000	13	29	200
Urban	0.1	Basic Igneous and pyroclastic	Eutricvertisols and humicnitisols	Plain and ridges	600	1 600	13	28	5 500

Figure 1. Eco-climatic zones of Kenya (MENR, 2015 Kenya Biodiversity Atlas)

5. ***Biodiversity:*** Kenya is home to five globally important biodiversity hotpots and 61 important bird areas (IBAs). Ten of the world?s fourteen biogeographical biomes can also be found within Kenya?s borders. This makes Kenya the richest biotic region in Africa and among the richest of nations worldwide. In addition to its overall biotic diversity, Kenya has several distinctive biomes of global significance. They include the East African coastal biome; the coastal forests of Arabuko Sokoke and the lower Tana River; **the afro-montane forests** of Mt. Kenya, the Aberdares and **Mt. Elgon**; Kakamega Forest, the Eastern-most outlier of the Guineo-Congolian equatorial forests; the Somali-Maasai zone; the expansive afro-tropical grassland and highlands biome; the Victoria Basin biome; and the Sudan and Guinea Savannah biome. These biomes contain high levels of animal species diversity and genetic variability, and have many endemic, rare, endangered and threatened species. Figure 2 shows the overlap between Key Biodiversity Areas and Protected Areas.
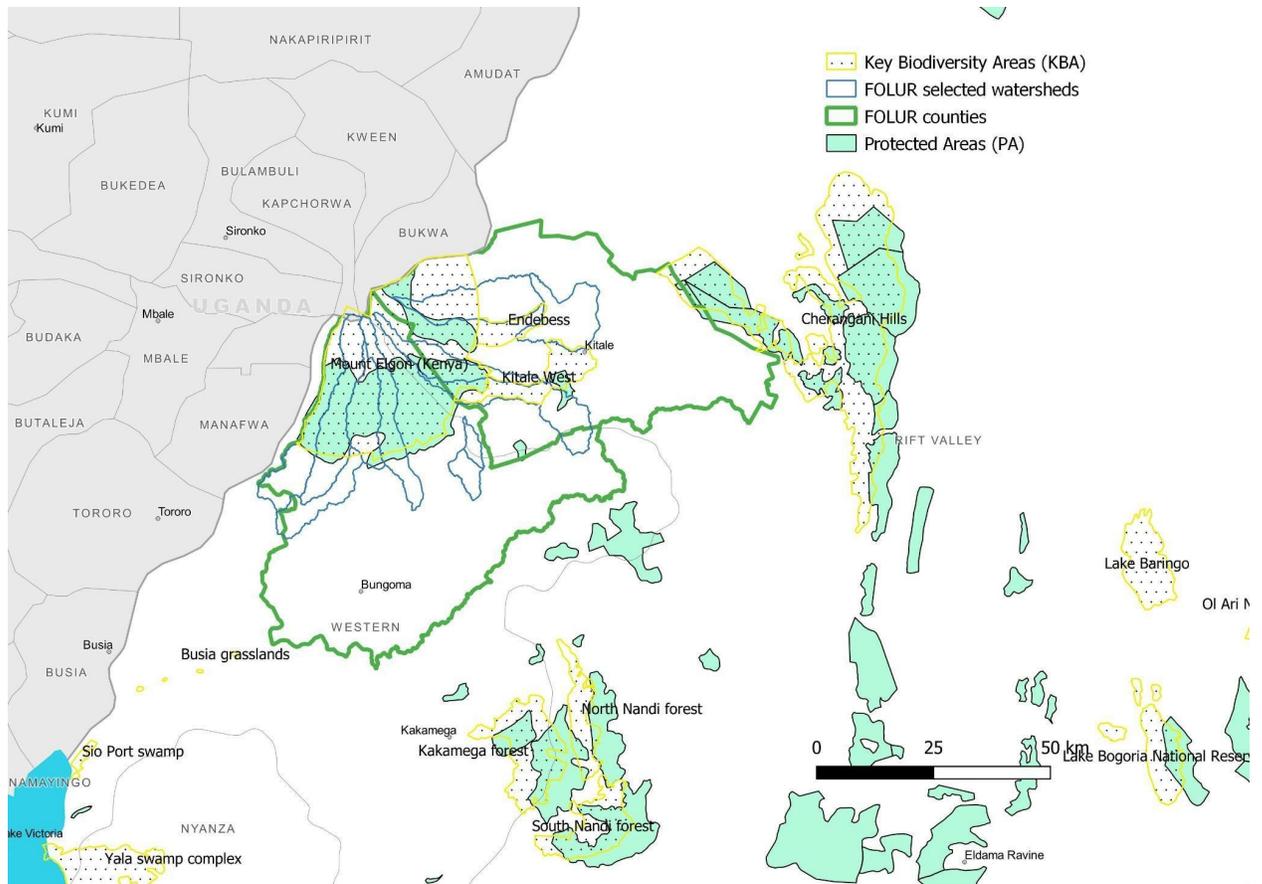
Figure 2: Protected Areas and Key Biodiversity Area Boundaries in Western Kenya (Birdlife International, 2021)[1][1]

6. Kenya has 73 identified KBA sites of which 67 are Important Bird Areas (Gacheru et al., 2019) and 6 are Alliance for Zero Extinction Sites (AZEs), with a further 47 potential KBA sites. Since 1980, there has been a 7.5 percent increase in the coverage of KBAs within protected areas (PAs)in Kenya (IBAT, 2020). Within the targeted FOLUR counties, there are 3 KBAs and 4 PAs.

7. Kenya?s known biodiversity assets include 7,000 plants, 25,000 invertebrates (21,575 of which are insects), 1,133 birds, 315 mammals, 191 reptiles, 180 freshwater fish, 692 marine and brackish fish, 88 amphibians and about 2,000 species of fungi and bacteria (NEMA 2009a). Kenya is ranked third in Africa in terms of mammalian species? richness with 14 of these species being endemic to the country (IGAD 2007).

8. Kenya is also known for its richness and abundance of its terrestrial vertebrates. Underpinning and providing the foundation for this diversity is the richness and abundance of its plant life. The East African region has a documented 12,317 species and at least 7,004 are found in Kenya. Mt. Elgon is

among three key areas with high plant diversity, with 650 to 950 species per 0.5 kilometer square. Of the 7,004 plant species found in Kenya, 577 (some 8 percent) are endemic.

9. The forests in Western Kenya also harbour wild coffee of the diploid *Coffea eugenioides* which is diminishing as the forest is being degraded. This is an important in situ conservation ecosystem of the species with ex-situ conservation efforts going on from 1970s with the accessions being preserved in the Coffee Research Institute (CRI) at the Kenya Agricultural and Livestock Research Organization (KALRO) and through international exchanges.

10. *Forests:* Kenya has 3.5 million hectares of forests, including indigenous forests, open woodlands and plantations and an additional 24.6 million hectares of ?bushland?. Forests and forest products significantly contribute to Kenya?s economy. The forest industry (formal and informal) directly employs an estimated 750,000 Kenyans and indirectly benefits at least 4 million more.[2][2] Government figures suggest forests? contribution to the Kenyan economy is 3?3.6 percent of GDP.

11. Kenya?s forests support a large variety of floral and faunal species while the forest ecosystems provide multifarious services to a range of stakeholders. For example, forests are a major source of biomass energy, accounting for approximately 56 percent of the national energy needs. Forests also sustain vital water catchments on which rivers, hydropower dams and underground aquifers depend for water recharge. They are also a source of herbal medicine, pharmaceutical ingredients and cultural nourishment for local communities.

12. Since the early 1900s, the demand for timber, fibre and fuelwood spawned by Kenya?s economic growth over the last half century, coupled with an insufficient forest plantation, settlement schemes and illegal farming and herding, greatly accelerated forest loss and degradation. Although there has been some revival of forested areas, particularly plantations and farm forestry, Kenya?s forests continue to decline as large areas of tree cover succumb to the pressures of human activity and climate driven changes. Kenya?s total forest cover currently stands at 7.2 percent of the total land area.

13. In 2020, a study[3][3] was conducted to determine what direct threats from human sources were impacting biodiversity from a national and county perspective, and to what extent. The study shows that agriculture and forestry appear ? according to the current STAR analysis ? as the two main economic activities affecting species extinction risk in Kenya. When also considering the intricate links between agricultural (crop) expansion, effluents, logging and wood harvesting, the potential to reduce species declines is multiplied significantly by focusing on synergies between the agriculture and forestry sectors

Agriculture sector context

14. Agriculture dominates the Kenyan economy, accounting for 40 percent of the overall workforce. The country?s major agricultural exports are tea, coffee, cut flowers, and vegetables. Kenya is the world?s leading exporter of black tea and cut flowers. Kenya also ranks fourth in Africa and 16th in the world for coffee production. Kenya?s high rainfall areas constitute about 10 percent of Kenya?s arable land and produce 70 percent of its national commercial agricultural output. These same areas also constitute some of the most densely populated areas in Kenya (Figure 3 below) which exacerbates

competition for natural resources, land and water and has led to wide-scale fragmentation of landscapes. The Mt. Elgon landscape is located within the highly populated western region.
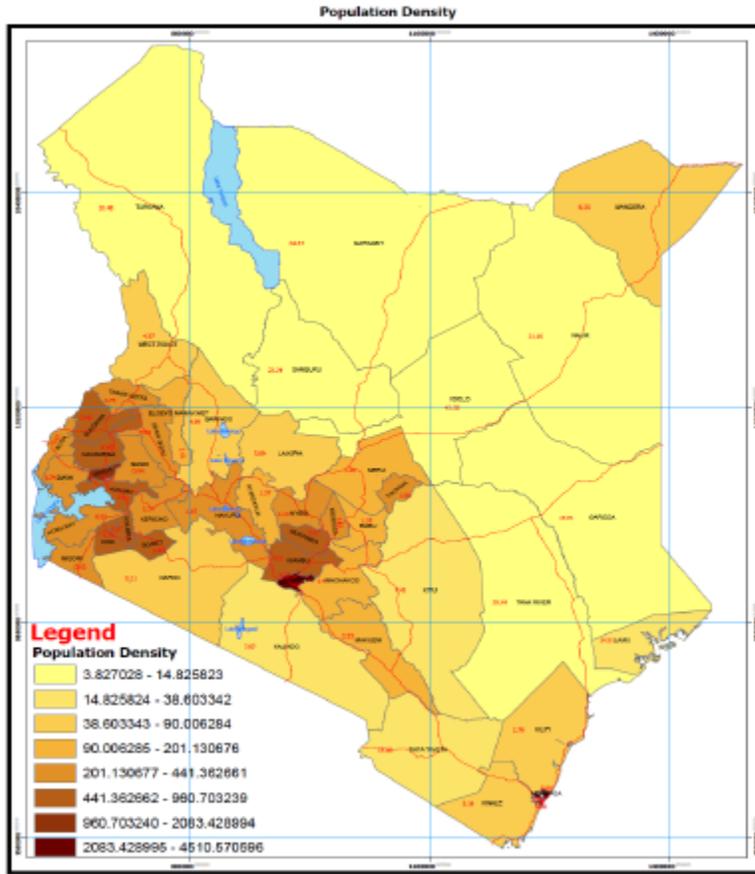

Figure 3. Population density of Kenya, 2015

15. The growth of the agriculture sector accounted for the largest share of poverty reduction between 2005 and 2015 (World Bank, 2018). As such, the sector is central to the government?s Vision 2030 and the President?s Big 4 development Agenda aiming to attain 100 percent food and nutritional security for all Kenyans by 2022. Maize and coffee are among value chains that have been identified as highest-potential value chains for agricultural transformation and prioritized under Kenya?s Agricultural Sector Transformation and Growth Strategy (ASTGT 2019 ? 2029).

16. The overall context of coffee and maize in Kenya is presented briefly in the next sub-section.

Maize production and productivity

17. Maize is the main staple food crop in Kenya, and it is grown for consumption and as a cash crop. The average annual production of 40 million bags or approximately 3.6 million tons is not sufficient to meet the national estimated demand of 52 million bags (or 4.68 million tons) required annually. Inadequate and underdeveloped market and distribution systems trigger high food price volatility, which rapidly translates into national food insecurity. Despite the availability of diverse food sources in the country, Kenyans continue to rely heavily on maize for food. The current national average

production is between 16 and 20 bags per hectare (average- 1.77 t / ha). The trend in production and yield in the past 5 years is depicted below.
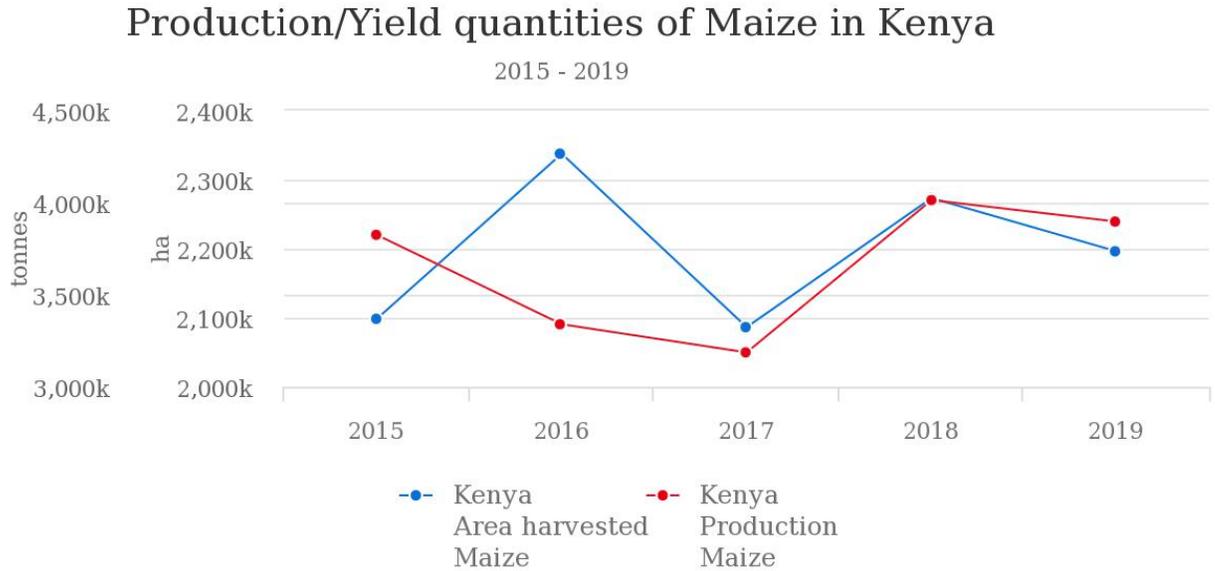
Production/Yield quantities of Maize in Kenya

2015 - 2019

Figure 4. Production/yield of maize in Kenya, FAOSTAT 2019

18. The FOLUR project counties of Bungoma and Trans Nzoia are amongst the top four counties which together produce 45 percent of the maize produced in Kenya, with small-scale farmers accounting for about 67 percent of the total production in both counties. This category of farmers typically follows the low-input, low-output maize production systems, characterized by limited access to agricultural credit; limited and inefficient use of fertilizers, high yielding maize varieties and improved seed; and sub-optimal pest and disease control measures.

Kenya's farmers, pastoralists, and fisherfolk can be mapped to seven agro-ecological zones
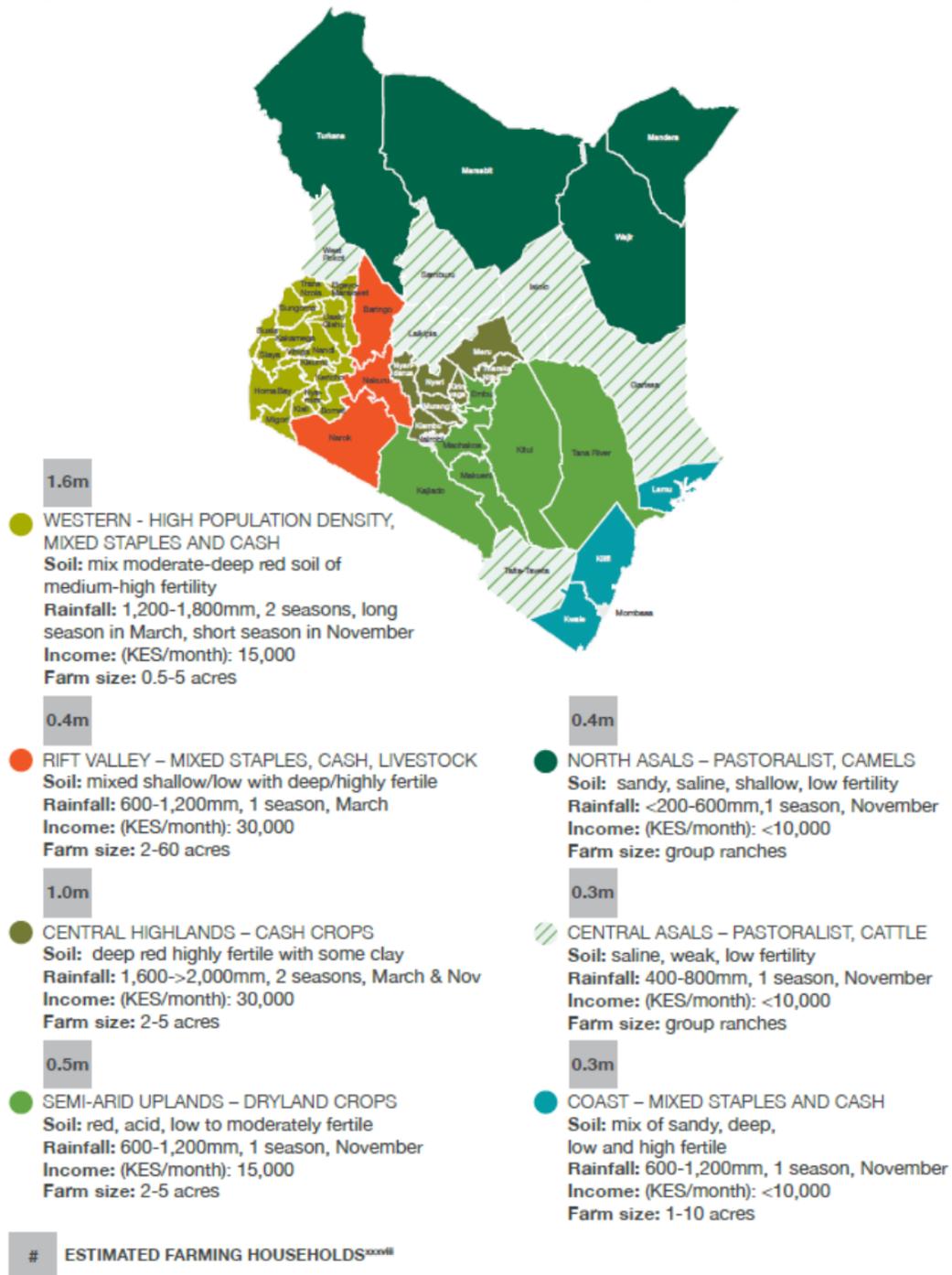

1.6m

● WESTERN – HIGH POPULATION DENSITY, MIXED STAPLES AND CASH
Soil: mix moderate-deep red soil of medium-high fertility
Rainfall: 1,200-1,800mm, 2 seasons, long season in March, short season in November
Income: (KES/month): 15,000
Farm size: 0.5-5 acres

0.4m

● RIFT VALLEY – MIXED STAPLES, CASH, LIVESTOCK
Soil: mixed shallow/low with deep/highly fertile
Rainfall: 600-1,200mm, 1 season, March
Income: (KES/month): 30,000
Farm size: 2-60 acres

1.0m

● CENTRAL HIGHLANDS – CASH CROPS
Soil: deep red highly fertile with some clay
Rainfall: 1,600->2,000mm, 2 seasons, March & Nov
Income: (KES/month): 30,000
Farm size: 2-5 acres

0.5m

● SEMI-ARID UPLANDS – DRYLAND CROPS
Soil: red, acid, low to moderately fertile
Rainfall: 600-1,200mm, 1 season, November
Income: (KES/month): 15,000
Farm size: 2-5 acres

0.4m

● NORTH ASALS – PASTORALIST, CAMELS
Soil: sandy, saline, shallow, low fertility
Rainfall: <200-600mm,1 season, November
Income: (KES/month): <10,000
Farm size: group ranches

0.3m

▨ CENTRAL ASALS – PASTORALIST, CATTLE
Soil: saline, weak, low fertility
Rainfall: 400-800mm, 1 season, November
Income: (KES/month): <10,000
Farm size: group ranches

0.3m

● COAST – MIXED STAPLES AND CASH
Soil: mix of sandy, deep, low and high fertile
Rainfall: 600-1,200mm, 1 season, November
Income: (KES/month): <10,000
Farm size: 1-10 acres

ESTIMATED FARMING HOUSEHOLDS[xxxviii]

Figure 5: Kenya?s agro-ecological zone. Source: Agricultural Transformation and Growth Strategy.

19. The low productivity is partially attributed to the high levels of soil erosion on the sloped landscape that has led to the loss of nutrient-rich top soil, depletion of soil organic matter content, degradation of

soil structure and low water retention capacity leading to farmers? encroachment of the forest land seeking for more productive land.

20. Monocropping of maize has caused depletion of specific soil nutrients and build up and spread of pest and diseases, and as a result more fertilizers, pesticides and other agrochemicals are required to sustain production. The maize stalk borer continues to be a great challenge in maize production in the landscape, attacking plants that are 3 to 5 weeks old and therefore farmers must continuously and consistently use pesticides. Over the past 3 years, fall armyworms (FAW) and locust invasion that attacked the crop across the country have also contributed to the low yields and poor maize quality in the region. All these factors have adversely contributed to low production and productivity.

21. Most smallholder farmers do not have the appropriate structures to store their maize for a long time once it is harvested. The maize ends up being infested by pests and contaminated by aflatoxin. It is estimated that 20-25 percent of maize and cereal production is lost post-harvest[4][4].

22. Post-harvest, the majority of farmers sell their maize as individuals and rely on informal markets (local wholesale and retail traders) which offer lower prices as compared to formal markets e.g. National Cereals and Produce Board (NCPB), millers. This happens because of various factors:

?   Due to poverty levels, some farmers sell the crop while still on farm before harvest season in order to access money to support their livelihoods.

?   There are few functional cooperatives involved in maize marketing in the region (e.g., Nzoia Grain Marketing and processing co- operative society Ltd in Endebess) that have the potential to mop-up the maize dry and sell in bulk to gain economies of scale.

?   Poor drying practices by the farmers (a result of unpredictable weather) and poor storage facilities impacts on the quality of the maize which end up being infested by pests and aflatoxin and hence cannot attract good competitive prices from NCPB and the millers who demand quality. The latter require maize moisture content to be at or below 13.5 percent.

23. The Government has introduced a new policy on Warehouse Receipt System (WRS) to address some of the system challenges highlighted. Under WRS, farmers can store grains in certified stores and be issued with receipts. They can use those as collateral for loans and other financial assistance as they wait for prices to improve. Alternatively, large buyers (traders and millers) could be linked to certified stores. Farmers need to form strong cooperatives to benefit optimally from this policy reform.

Coffee production and productivity

24. Coffee was first planted in Kenya in 1893 in Taita Hills in Taita Taveta County and was reserved for Europeans until the 1930s when the privilege was extended to Africans in Kisii and Meru counties on an experimental basis. The 1932 Coffee Industry Ordinance established an intrusive regulatory framework, which viewed coffee as a public property, mainly for foreign exchange earnings. The framework entailed stringent control of all activities related to coffee. It prohibited coffee planters from exporting their coffee or selling it except with the consent of the Coffee Board, among other prohibitions. The Ordinance was later amended and eventually consolidated with the Coffee Marketing Ordinance to become the Coffee Ordinance. After independence in 1963, the Coffee Ordinance became the Coffee Act and retained the licensing regime to control the value chain. The independent

government also created the Coffee Development Authority (CDA) to provide extension services and funding of wet mills for smallholder farmers under the ambit of cooperatives.

25. Shortly after independence, cooperative societies emerged as strong platforms for farmers? collective economic empowerment through formation of District Cooperative Unions. These unions provided extension services, inputs, food, and offered loans for school fees and development, as well as bursaries for children from poor families. The unions also offered banking services to their member societies and received sales proceeds from the Coffee Board of Kenya (CBK) through Kenya Planters Cooperative Union (KPCU). The unions were affiliated to KPCU since it was the sole miller. It offered them loans to lend to farmers against the parchment deliveries. However, the 1977 coffee boom coupled with mismanagement of key coffee institutions necessitated reforms. The collapse of the International Coffee Agreement (ICA) in 1989 precipitated a major decline in coffee prices globally and locally and ignited the call for reforms in the coffee sub-sector in Kenya. These initiatives for reforms gained momentum in 1993 and were partly pushed by the Coffee and Tea Parliamentary Association (COTEPA). Consequently, the government licensed three millers to compete with KPCU. As part of the reforms, the threshold for estate licenses was reduced to five acres.

26. Kenya produces some of the best coffee in the world thanks to rich volcanic soils, well-distributed rainfall, high altitude and moderate temperatures. In addition, the washed method of processing coffee contributes significantly to the quality attributes that consumers value. In foreign exchange earnings, the sub-sector ranks fourth after tourism, tea and horticulture. The sub-sector also contributes to growth in agriculture through family farm incomes, employment creation and food security, supporting approximately 5 million people (30 percent of the agricultural labour force) through forward and backward linkages.

27. Coffee-growing areas are located within the Western, Rift Valley, Central Kenya and Mt Kenya regions (Figure 6). Kenya grows Arabica coffee that is globally recognized and is normally blended and upgraded with other relatively inferior brands. Coffee is grown in the high potential areas between 1,400 and 2,200 metres above sea level, with temperature ranging from 15?C to 24?C, in red volcanic soils that are deep and well drained. Over 99 percent of Kenyan coffee is Arabica, whose main varieties are SL 28, SL 34, K7, Ruiru 11, Batian and Blue Mountain.
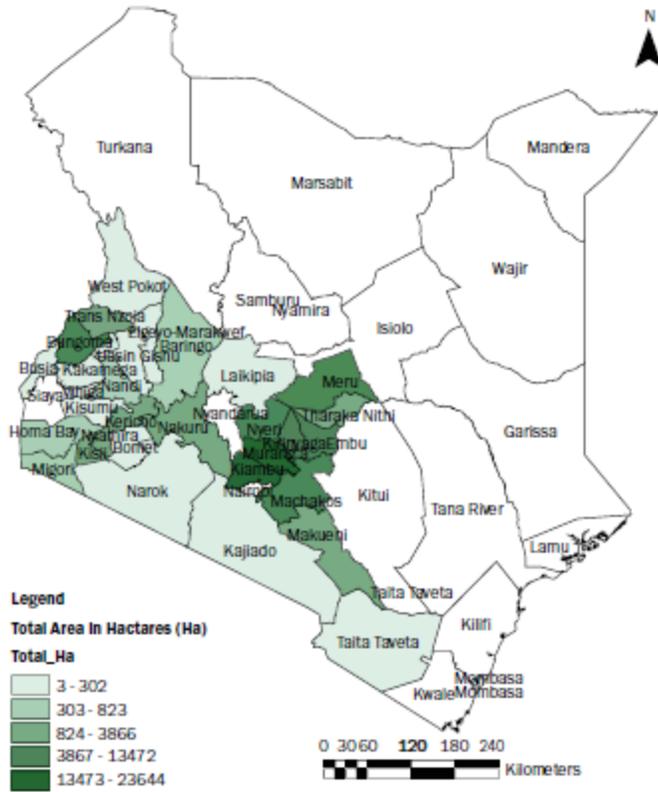
Figure 6. Coffee growing Counties in Kenya (Source: ICO 2019)

28. Coffee occupies 119,627 ha and is grown in 32 counties by two distinct categories of farmers; smallholders (less than 2 ha) and estate[5][5]. The estates are further classified into small estates (2 - 8 ha), medium (8 - 20 ha) and large estates (>20 ha). The smallholders are the majority, estimated to be 700,000 organized into 513 cooperatives, whereas the number of active estate farmers are 2,132. Although smallholder farming dominates Kenya?s coffee sector, their productivity lags behind at an average yield of 280 kg/ha annually while estate yields averages 556 kg/ha and the national average is estimated at 302 kg/ha. On average a coffee tree in Kenya yields 2 kg annually against a potential of 30 kg.

29. Coffee establishment, which involves digging holes and transplanting, is mainly done by male adults and youth, who also undertake crop protection activities, while weeding, harvesting, delivering to the coffee factories and sorting is mostly done by women and the youth. The average age of coffee farmers is 58 years and the youth and women face challenges when it comes to owning the land.

30. In the year 1988/1989, Kenya produced 129,637 MT of clean coffee from 170,000 ha; out of which the smallholder sector produced 84,863 MT of clean coffee and the estates 44,774 MT clean coffee, a ratio of 65 percent and 35 percent respectively. On the overall, production declined by 71.5 percent from 129,637 MT of clean coffee in 1987/88 to 36,873 MT of clean coffee in 2019/2020 (Figure 7). The export earnings declined from USD 500 million in the 1990s to USD 159 million in 2018/19.
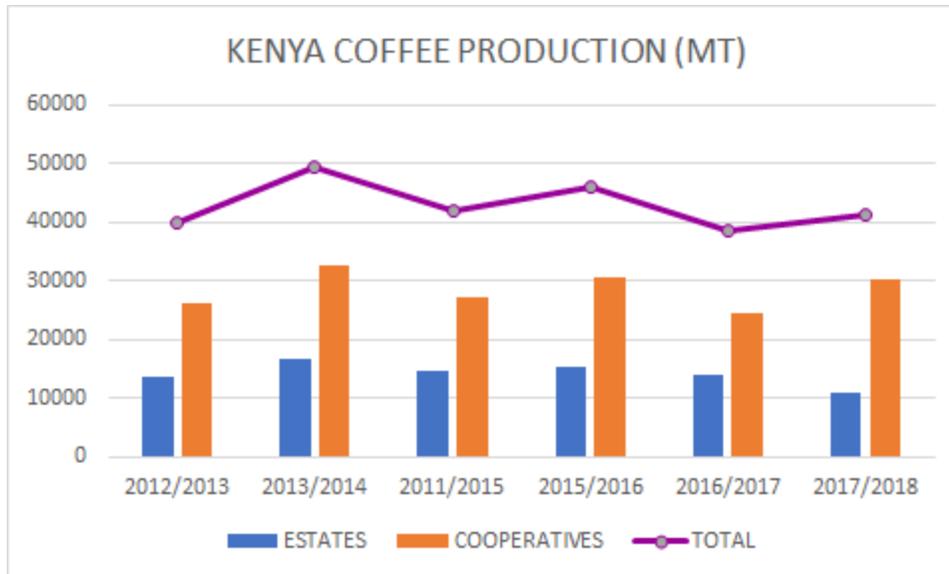
Figure 7. Kenya coffee production Constructed from ICO Country coffee profile 2019

31. The country exports coffee to various destinations in Europe, North America, Asia and Africa. The top export destinations in 2019/20 were: the United States of America (20 percent), both Germany and Belgium (17 percent) and Korea (9 percent). The total volume exported was 46,333 MT of Green Bean Equivalent (GBE) valued at ~ US$ 210 million.

32. The coffee sector in Kenya is confronted with many challenges, among which are: low production and productivity driven by declining soil fertility, aging farming community, effects of climate change, reduced investments in coffee research, insufficient extension services, low adoption of Good Agricultural Practices (GAPs) and low investments as a result of low earnings.

Global environmental problems and drivers

33. Kenya is experiencing an increasing degradation of its key ecosystems, loss of globally significant biodiversity, and reduced productive capacity and livelihood resilience. This is reflected in the below analysis of land use change carried out in the framework of the Land Degradation Assessment in Drylands (LADA) in 2016[6][6], which shows a 7.3 percent increase in agricultural land, 2.6 percent increase in bare lands and 1 percent forest loss. Land degradation hotspots, such as the Mt. Elgon, are experiencing much higher rates of degradation.

Table 1. Spatial analysis of land use changes In Kenya

Land use/Land Cover Change	Changed Area (Km2)	Percent Change
Forest 1990-2000	5199.3	-0.8
Forest 2000-2010	983.2	-0.2
Total Loss of Forest (1990-2010)	**6182.5**	**-1.0**
Agriculture 1990-2000	25159.6	+3.9

Agriculture 2000-2010	22237.4	+3.4
Total increase in Agricultural land (1990-2010)	**47397.1**	**+7.3**
Rangeland 1990-2000	46399.2	+7.1
Rangeland 2000-2010	12152.8	+1.9
Total increase in rangelands (1990-2010)	**58552.1**	**+9.0**
Bare land 1990-2000	26457.1	+4.1
Bare land 2000-2010	9508.5	-1.5
Total change in bare lands (1990-2010)	**16948.6**	**+2.6**

34. The main causes and drivers of this degradation include the following: unsustainable use of land resources, with agriculture encroachment on forests and wetlands outside and inside protected areas, illegal and excessive extraction of natural resources (timber, firewood, hunting, non-timber forest products), and widespread use of maladaptive farming and forestry practices, driven by population growth, poverty and inequality, and exacerbated by climate change and the recent COVID-19 pandemic.

35. Agricultural expansion has escalated over the past 20 years, driven by the ever-increasing demand for food, water and energy from a rapidly growing population against a diminishing resource base. Limited land resources often lead to a division of land into smaller pieces. Rapidly declining per capita land area is associated with the conversion of forest land and other land use into cropland. Expansion into more fragile land has also been a common challenge accompanying the decline in arable land. Increasing pressures on agricultural land have resulted in much higher nutrient outflows and the subsequent breakdown of many traditional soil-fertility maintenance strategies and the opening of new lands. Increasing population also compels people to expand cultivation into less suitable land, accelerating the rate of degradation. Analysis of baseline data for the Agriculture Sector Development Support Programme revealed that only 40 percent of surveyed households practiced some form of sustainable land management. Mulinge et al. (2016) estimate the annual costs of land degradation in Kenya between 2001 and 2009 at USD 1.3 billion.

36. *Climate change impacts:* Current climate change projections for Kenya indicate an average increase of 1 - 2?C by 2050. For 2100, warming ranging between 1.3?C and 3.9?C is likely with some models suggesting an increasing of 4?C. With rainfall, there are significant variations between model predictions and less certainty. Some indicate a tendency towards an increase in annual precipitation, with more intense and more frequent heavy rainfall as well as a slight decrease in the duration of dry spells, is predicted[7][7].

37. Climate change vulnerability assessment of Kenya?s Water Towers ecosystems (Mau, Cherangany and Mt. Elgon)[8][8] shows that there is a decline in rainfall, along with increasing variability in the length of rainy seasons. Indeed, prolonged drought has been experienced in parts of Mt. Elgon over the past few years, affecting crops and livestock production and water resources. Currently Mt Elgon Water Tower has 57 percent under a Low Climate Vulnerability index according to the above study, but in both the RCP 4.5 and 8.5 scenarios, this area shrinks significantly in the mid future (2050s) and is almost non-existent in the far future (2070s) (see figure 8 below). With the degradation of the ecosystems due to deforestation and land-use change, projected future changes will have significant negative consequences on food security and livelihoods, water resources, biodiversity, and other ecosystem services.
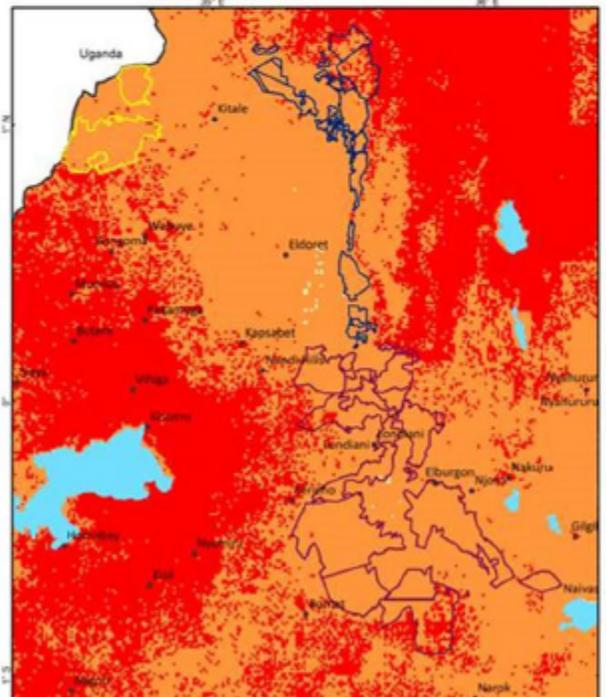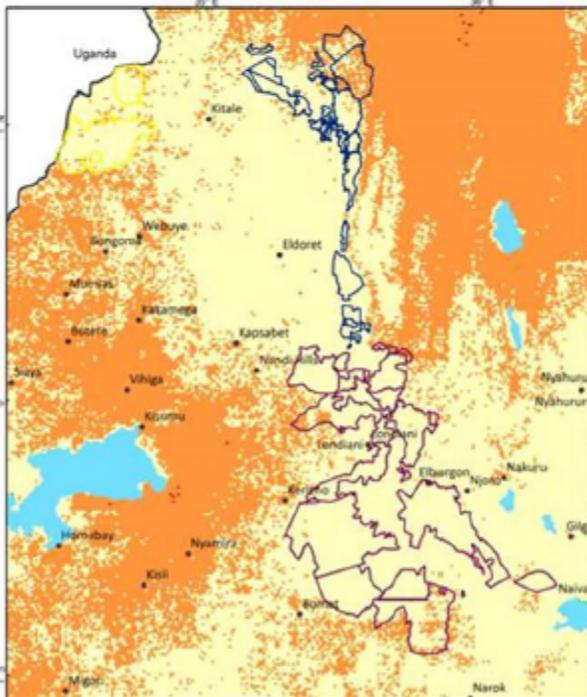
Mid-future (2050)   **Far-future (2070)**

RCP 4.5

RCP 8.5

Vulnerability Index

Very Low   Low   Moderate   High   Very High
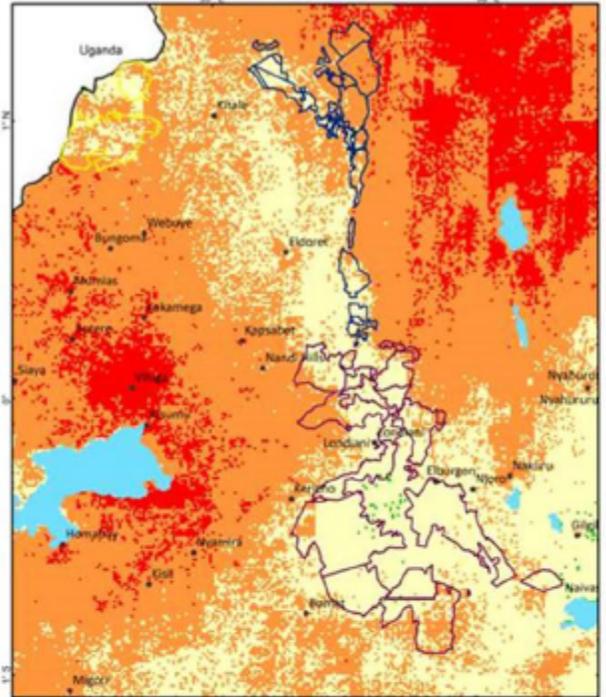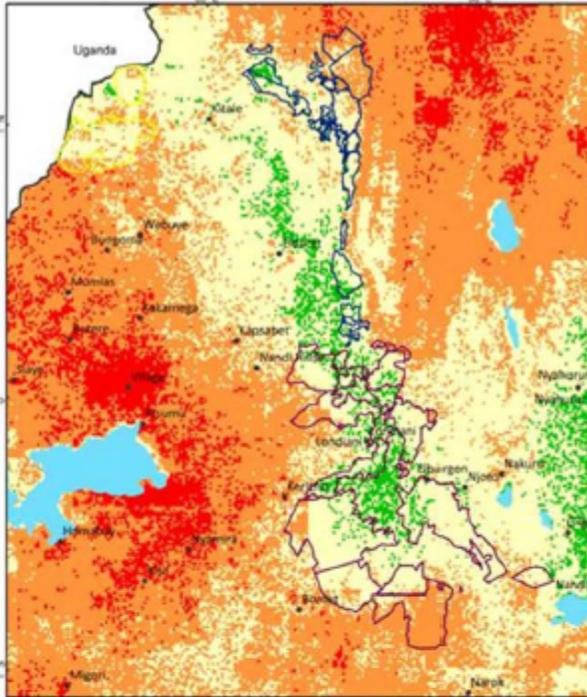
Figure 8. Climate change vulnerability of 3 key Water Towers in future periods for Representative Concentration Pathway (RCP) 4.5 and 8.5 (Mwangi et al, 2020)

38. The adaptive capacity of the agricultural sector is particularly low due to various factors such as heavy reliance on rain-fed agriculture, limited access to and adoption of resilient production technologies, and limited technical and operational capacity of extension services.

39. Women are among the people most vulnerable to climate change. They manage over 40 percent of Kenya?s smallholder farms and provide 80 percent of the labour for crop production. Most women spend 1-5 hours per day looking for firewood. Decreased availability of natural resources due to climate change will seriously affect them. Indirect effects on women and girls include climate change-induces conflicts and disease outbreaks (particularly malaria). Women?s adaptive capacity to climate change is limited by their restricted access and ownership of land and capital ? women own only 1-5 percent of land titles in Kenya.

40. ***Impacts of COVID-19:*** As a result of COVID-19, farmers in Kenya face several concerns and challenges leading to a significant decline in household income. The global lockdown hurt Kenyan agriculture exports due to restrictions on the movement of goods. A study carried out by the Europe-Africa-Caribbean-Pacific Liaison Committee (COLEACP) in 2021 indicates that Kenya?s agricultural sector suffered a loss of roughly USD 3 million every day during COVID-19 lockdowns. Unavailability of agricultural inputs and uncertainty about the marketing of products has reduced production. At least 45 percent of farmers have seen their household income fall. Other sources of income like poultry and livestock could not help them much due to a substantial drop in demand. Generally, restrictions have led to increased cost of food production in both rural and urban areas, driven by an increase in transportation costs as a result of limited public transport capacity and increased input prices.

41. Studies in Western Kenya affirm that COVID-19 limited farmers' access to inputs and markets, pushed up their price of production and caused household incomes to plummet with 67 percent of farmers reporting a significant reduction in household incomes. Thus, the impacts of consumers? low demand for food and farmers? reduced incomes will be felt differently in the short and long-term ? hindering food security in the short term and in the long term, it could reduce farmers? interest in farming and encourage migration to urban areas in search of other livelihoods.

Project target landscape

42. The project will work on the Kenyan side of the Mt. Elgon landscape within the **Bungoma and Trans Nzoia counties.** The area is located approximately 450 km west of Nairobi, between latitudes 00? 52? and 10? 18? north and longitudes 34? 38? and 35? 23? east (see figure 9 below).

43. The landscape covers 170,983 ha, which are characterized by a mosaic of gazetted forest areas, National Park, agricultural buffer zones and maize and coffee production systems (Mt. Elgon National Park - 10,542 ha, Chepkitale National Reserve - 19,768 ha, gazetted forest area - 72,548 ha and 5 km buffer zone of 68,080 ha). There are also wetlands in the project area important to birdlife which are under significant degradation due to agriculture (growing of vegetables, sugarcane and other crops), livestock rearing, unsustainable removal of craft materials (e.g. basket making) and extraction of herbal medicines, especially during the dry season.

44. The estimated annual monetary value of ecosystem goods and services from the Mt. Elgon was estimated at KES 115 billion in 2018. A more recent study carried out in 2021, estimated the aggregate monetary value of products from Mt Elgon at around KES 3.4 billion which underscores the importance of the ecosystem for local livelihoods and incomes and the Kenyan economy.
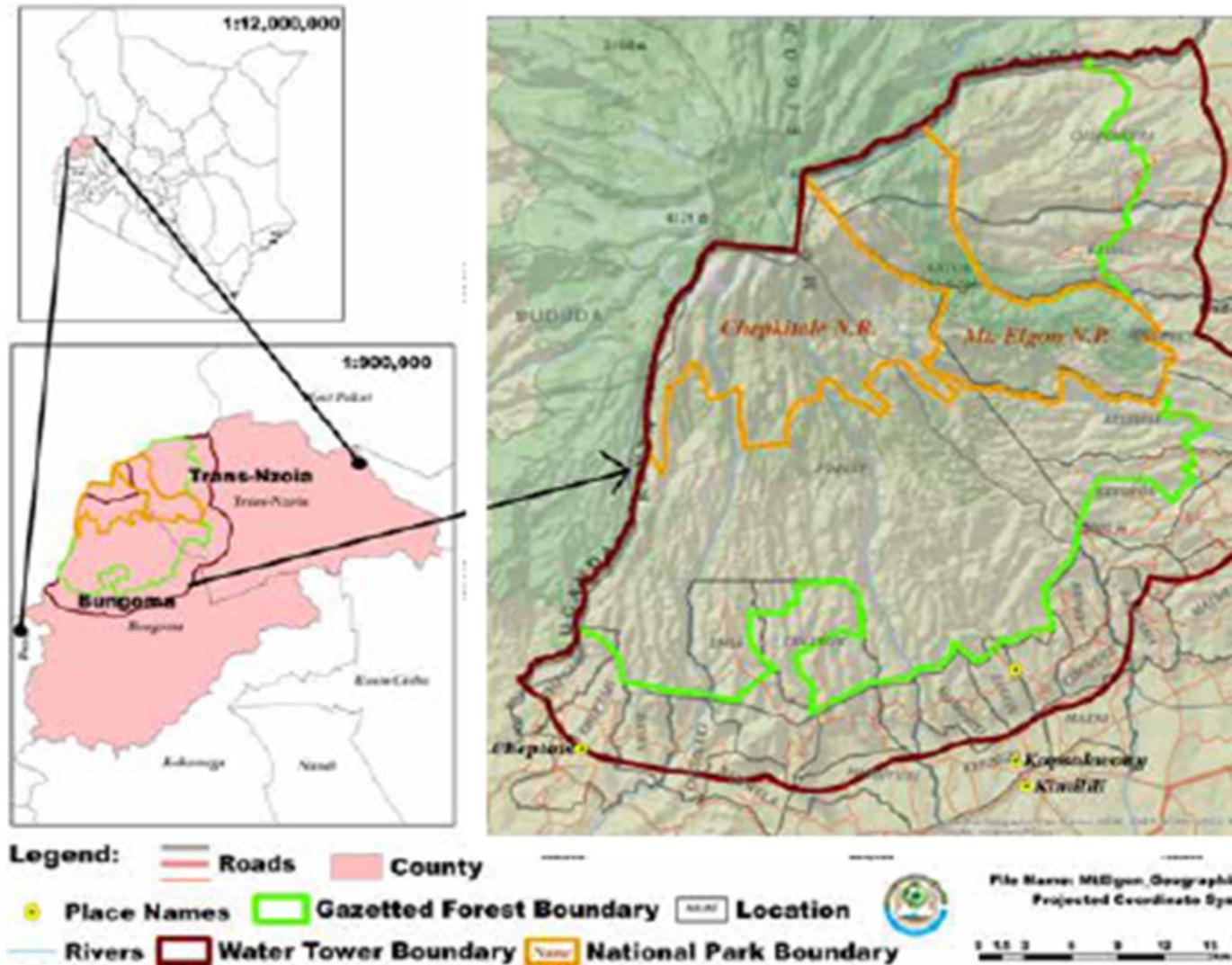

Figure 9. Mount Elgon Water Tower

45.   The area around Mt. Elgon is a heavily populated landscape, with an estimated 2 million people. Bungoma and Trans Nzoia counties are amongst some of the densest counties within Kenya (Figure 10). The rapid population growth is affecting this unique ecosystem. The majority of the communities living around the Water Tower are from the ethnic groups of Luhya, Teso and Sabaot. Other tribes include: Kalenjin, Kikuyu, Turkana, Kisii, Luo, and some immigrants from Uganda. The livelihood of the community is dependent on subsistence agriculture. Nearly 80 percent of the residents in the region were directly dependent on land through low-input subsistence agriculture or direct extraction of natural resources (RoU 2013). Most households practiced crop farming and livestock rearing.
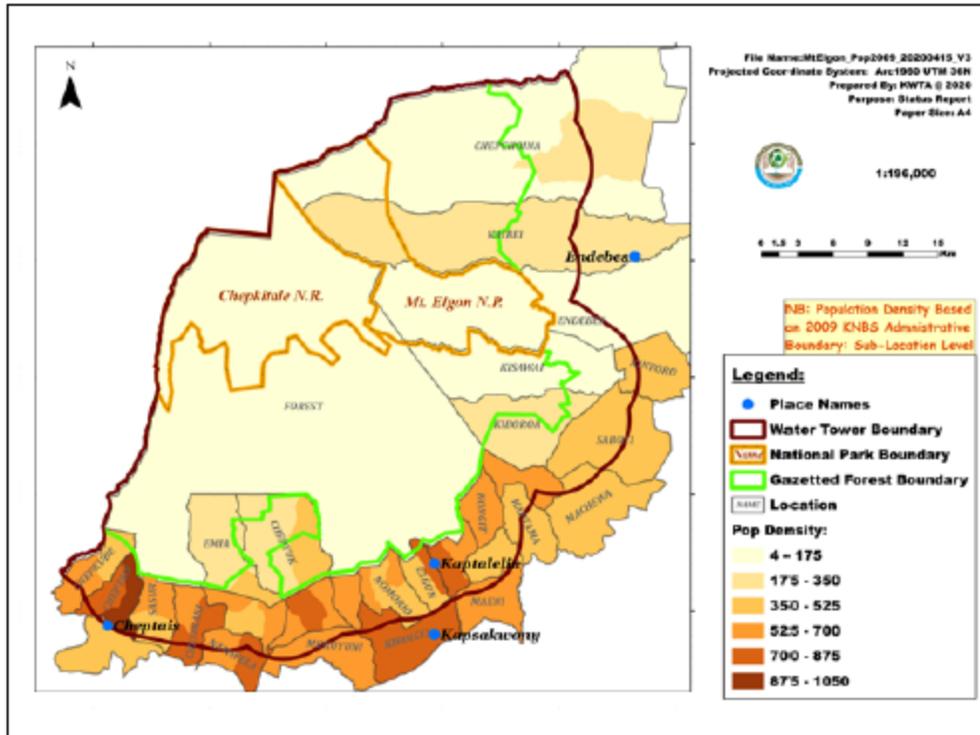
Figure 10. Population Density in Mt. Elgon (persons/km2). Source: Kenya Water Tower Agency

46. The Ogiek are an indigenous ethnic minority community in Kenya who mainly reside around the Mau forest complex and Mt. Elgon ecosystem. Today, the population of the Ogiek community in the Mau forest complex is constituted of approximately 30,000 members and the Ogiek community in the Mt. Elgon forest is constituted of about 18,000 members of which 3,000 members are residing within the forested areas in Chepkitale which supports a rich montane forest and moorland landscape with high biodiversity. Historically the traditional livelihood practice of the Ogiek community was hunter-gathering. Today, for several reasons, livelihoods have been diversified to be more reliant also on farming and livestock keeping, although traditional practices such as beekeeping and herbalism remain common within the community. Up to today, the Ogiek community of the Mau and Elgon, identify themselves as hunter-gatherers and depend on the respective forests to sustain their livelihoods. Indeed, forests provie them with food, medicine, shelter and are fundamental to preserving their unique culture and traditions.

47. As is the case for many hunter-gatherer communities and IPs around the world, the Ogiek community has a history of marginalization in the management, conservation and right to their traditional lands. Large areas of forest land in both Mau and Mt. Elgon Forest have historically been de-gazetted, which led to the loss of the Ogiek?s ancestral lands. In the past, the Ogiek has repeatedly been resettled from areas within the gazetted forests to outside of the forest boundaries. On 26 May 2017, the Ogiek won a case at the African Court on Human and Peoples? Rights based in Arusha, Tanzania, which ruled that the Kenyan government had violated the rights of the Ogiek people by repeatedly evicting them from their ancestral lands in the Mau Forest. In a similar manner, in 2021, the Ogiek are petitioning for a similar ruling related to evictions in the Mt. Elgon forest and a degazettement of the Chipkitale reserve for the Ogiek.

<u>Project Site selection criteria</u>

48. The Mt Elgon Water Tower was selected due to its overall importance for biodiversity conservation and critical functions and provision of services. Because of the large area, the PPG team had to discuss with key stakeholders to narrow down the actual project intervention areas based on the following criteria:

? importance of biodiversity

? hotspots of degradation and opportunities for restoration

? presence of ongoing projects

? presence of coffee and maize value chain actors

? existence of community-based natural resource management frameworks

49. Four sub-counties out of the eight identified (table 2 below) as the most vulnerable to degradation during the consultative process have been selected through intensive consultations with stakeholders at the local level (county government administrations, NGOs, CBOs and local farmers) and their views and interest in the project helped shape the final choice. Consequently, two sub-counties in each county were selected based on their proximity to the protected area system (forest and wildlife park), agricultural buffer zones and the production agricultural landscape. These sub-counties will form the administrative boundary of the project. Project interventions and investments will be implemented according to the different sub-catchments identified which will ensure a continuum along the landscape approach promoted through the project.

Table 2. Project site location (source: Bungoma CIDP 2018-2022 and Trans Nzoia County Spatial plan 2020-2030)

	County	Sub-county	Population	Size (km2)	Coordinates
1.	Bungoma	Mount Elgon	241,171	963.3	N 1.149051, S 0.757288, W 34.402124, E 34.812072
		Cheptais			
2.	Trans Nzoia	Endebess	91,192	676.9	N 1.299827, S 0.999116, W 34.550690, E 34.950231
		Saboati	166,482	349.9	N 1.062796, S 0.843124, W 34.672375, E 35.033375

50. The focus of this project is to intervene in key ecologically important areas, which were selected based on their global environmental significance, as well as their cultural and socio-economic

relevance to the local communities who are their custodians and are dependent on them. These ecological areas are also the main watersheds for Trans Nzoia and Bungoma Counties. As such 10 sub-catchments areas were selected to prioritize the interventions (figure 11).

51. As mentioned, the Mt. Elgon Water Tower was selected due to its overall importance for biodiversity conservation and other critical ecosystem functions. The first level of intervention (component 1) will cover the entire landscape, to provide an overarching framework for integrated landscape management. The second level of intervention and investments (components 2 and 3) will be implemented in ten sub-catchments identified through intensive consultations with key stakeholders during PPG based on: (1) important biodiversity areas; (2) degradation hotspots and opportunities for restoration; (3) presence of coffee and maize value chains; and (4) existence of community-based natural resource management frameworks. The 10 sub-catchment areas are key ecological areas, with global environmental significance, as well as cultural and socio-economic relevance to the local communities who are their custodians and are dependent on them. These areas, which fall under administrative borders of Cheptais, Mount Elgon, Endebess and Saboati sub-counties, are also the main watersheds for Bungoma and Trans Nzoia counties (see Figure 11 below).
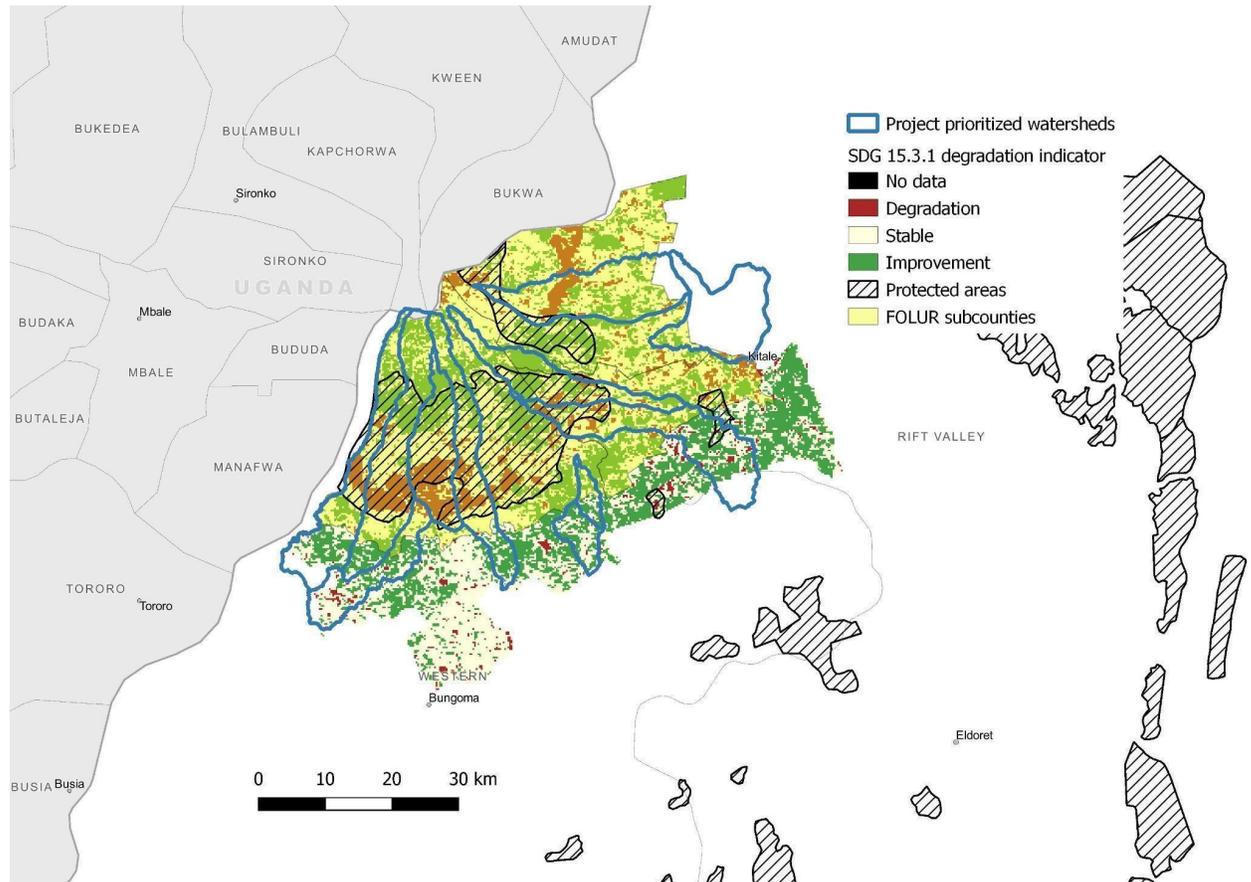

Figure 11. Prioritized watersheds in Mt. Elgon landscape.

Institutions and governance structures

52. The current Kenya Constitution was promulgated in 2010. Creation of County Governments (devolution) was one of the main provisions. Article six establishes the national and county governments as distinct and inter-dependent entities. One of the objects of devolution is the recognition of communities? participation in the management of natural resources, promotion of equity in sharing of benefits accruing from local resources, and decentralization of state organs and strengthening of local institutions.

53. Since the successful completion of devolution process in 2013, responsibilities for agriculture and natural resources rest with the counties. Therefore, the counties established departments responsible for the development, maintenance and management of their respective sectors. However, the overall responsibility for natural resource management and climate governance remains with the respective ministries at the National level. Counties have created County Environment Committees and County Agriculture Sector Steering Committees to facilitate coordination, cooperation and consultation of stakeholders and partners in their respective sectors.

54. Regarding forests, the project counties signed a Transition Implementation Plan (TIP) with Kenya Forest Service (KFS) to ensure the smooth transfer of devolved forestry functions, including forest governance and farm forestry extension services. This has been supported by the Devolved Government Act No 1 of 2012 and the Constitution of Kenya. In 2016 the Forest Act was revised to the Forest Conservation and Management Act providing for the development of management plans in state or local (community) forests that are implemented through signing forest management agreements between the local communities and KFS. These Participatory Forest Management Plans (PFMPs) are valid for three years.

55. The County department of agriculture implements policies pertaining to food crops, livestock and fisheries and commodities such as tea, coffee and others. KFS, Kenya Wildlife Service (KWS), Kenya Water Tower Agency (KWTA), Water Resources Authority (WRA), National Environment Management Authority (NEMA) and Kenya Agricultural and Livestock Research Organization (KALRO) are all national institutions whose influence is felt at the county level. At the community-level, we have sector-based organizations such as the Water Resource User Associations (WRUAs), Community Forest Associations (CFA) and Farmer Cooperatives. Community Wildlife Associations are encouraged under the Wildlife Act, but none have been formed in Mt Elgon. The forest dependent community of Ogiek developed their own governance structure and documented the "Chepkitale Ogiek Community By-laws". The general community in the project area has also formed a web of welfare organizations based on specific interests such as Savings & Credit. All of these governance structures have their influence on the management of resources in the county.

Biodiversity in Mt Elgon

56. Mt. Elgon is Kenya?s second highest mountain and is an ancient, eroded volcano known for a rich and unique plant and animal life and acts as a refuge for many globally threatened and endemic species. The ecosystem constitutes a critical part of much of the ?Eastern Afromontane? biodiversity hotspot, globally recognized for a high level of endemism with most cloud forests in the network hosting unique species and subspecies of many floras and faunas. The Mt. Elgon complex also acts as a key water tower supplying feeding tributaries to Lake Victoria, Lake Turkana and the Rift Valley drainage system and thus acts as a critical source of water for a much wider network of critical biodiversity areas such as Lake Victoria, Lake Kanyaboli and Kingwal Swamp.

57. The flora of the ecosystem is separated into four (4) distinct ecological zones starting with high moorland zones above 3,500m ASL; zones of high montane heath from 3,000m ? 3,500m ASL; a belt of bamboo and low canopy forest between 2,500m- 3,000m ASL; and a community of mixed forest zones below 2,500m ASL. Localized and varied climatic zones, rainfall and slopes have given rise to varied ecological niches within the various zones. The mountain slopes are coved with olive *Olea hochstetteri* and *Aningueria adoli-friedericii* wet montane forest. At higher altitudes, this changes to Podocarpus gracilior forest, and then to Podocarpus and bamboo Arundinaria alpina zone. Above this zone there is a Hagenia abyssinica zone and then moorland with heaths Erica arborea and Philippia trimera. Additionally, there are tussock grasses such as Agrosis gracilifolia and Festucapilgeri, herbs such as Alchemilla Helichrysum, Lobelia, and the giant groundsels Senecio barbaipes and Senecio elgonensis. Generally, botanical diversity of the Water Tower includes giant Podocarpus, and Elgon olive trees, cedar (Juniperus procera), pilar wood (Cassipourea malosana), elder (Sambucus adnata), pure stands of elder (Sambucus) and many orchids (KWTA, 2018 ?Kenya Water Towers Status Report: Mt. Elgon?). The majority of the Mt. Elgon flora has not been sufficiently studied and classified and there is a high likelihood that the ecosystem hosts a large number of undiscovered endemic species. The ecosystem also hosts endemic plant species such as Elgon Teak (Olea welwitschii) which has been logged for its high value as hardwood to the point that it is now considered a threatened species. The critically endangered plant species ?Bothriocline auriculata? is also hosted in the gazetted and agricultural landscapes in Mt. Elgon. The population of the species is in rapid decline due to conversion of its natural habitats to agricultural land.

58. The faunal biodiversity of Mt. Elgon is equally unique and impressive and includes 37 globally threatened and/or endemic species of which 22 are mammals, 2 insects and 13 are bird species including species such as critically endangered Du Toit's Torrent Frog (*Arthroleptides dutoiti*) which has also been listed as a priority species in the EDGE programme due to its distinct evolutionary importance and unclear status as critically endangered and possibly extinct. Other critically important biodiversity includes: Mount Elgon mole shrew (*Surdisorex schlitteri*) which is a locally endemic shrew only observed from one specimen on the Kenyan side of Mt. Elgon; Barbour?s vlei rat (*Otomys barbouri*) a local endemic and endangered rat species; Rudd?d African Mole Shrew (*Tachyoryctes ruddi*), Thomas pygmy mouse (*Mus sorella*), Mt Elgon Forest Gecko (*Cnemaspis elgonensis*), Mount Elgon Grass Bushcricket (*Horatosphaga elgonis*), Mount Elgon Crab (Local endemic), all considered as locally or regionally endemic and in many cases, considered as threatened species. Other unique biodiversity features are the ?lava tube? caves, some over 60 m wide and frequented by elephants (and other animals).

59. In terms of birdlife, Mt. Elgon hosts a rich afromontane avifauna with over 300 species of bird including 40 restricted range species. Some species include the globally endangered and restricted-range Sharpe"s Longclaw (*Macronyx sharpei*); the near threatened Elgon Francolin (*Scleroptila elgonensis*) and Ring-necked francolin (*Francolinus streptophorus*); and, The Mount Elgon White-starred robin (*Pogonocichla stellata elgonensis*) a local endemic subspecies of the White-starred robin. In 2019, the first countrywide census was organized to estimate the Kenyan Grey Crowned Crane (*Balearica regulorum*) population. In the dry season the majority of these African endemic birds frequent wetlands, croplands and grasslands either side of the Great Rift Valley. In Bungoma and Trans-Nzoia counties, a total of 616 and 174 birds respectively were observed which is over 10 percent of the total estimated Kenyan bird. Habitat loss and degradation due to conversion of wetlands to

agricultural landforms an important threat to the species. The use of pesticides by large-scale and smallholder farmers also affects the invertebrate prey. Other threats include overgrazing and burning of grasslands.

60. Due to the rich plant and animal life, high level of local and regional endemism, and high prevalence of globally threatened and endangered species the Mt. Elgon landscape has been designated as a UNESCO Biosphere Reserve in 2003 as well as an Important Bird Area. Outside the gazetted and protected forest boundaries, in the productive agricultural landscapes, an additional two sites have been designated as Key Biodiversity Areas: Endebess and Kitale West, both constituting largely unprotected and unique freshwater ecosystems.

Ecotourism

61. From 2003-2013 the Mt Elgon National Park which is managed by KWS received on average 5,000 visitors per year which translated to USD 36,400 revenue in sales each year. There has been an upward trend in the number of visitors for the past 10 years since 2002, but this is relatively low compared to similar parks such as Mt Kenya, Aberdares or Amboseli. The Mt Elgon Reserve and Cheptikale Reserve received negligible number of visitors, despite the unique biodiversity, landscape and cultural heritage. The Kitum Cave and its associated salt-mining elephants and the waterfall of the Making?ny Cave are a few of the possible attractions. The Mount Elgon Elephant Project is one of the projects that are continuously supporting sustainable conservation and development of the area.

Land tenure in Mt. Elgon

62. Currently, land in both counties is predominantly held privately under leasehold and freehold tenure system. The remainder tenure falls under communal land. Recent titling program by the county in Trans Nzoia has settled lots of issues, but there are still instances of land conflict due to lack of comprehensive inventory of all the land as per various categories and their sizes. Other land issues relate to subdivision of land both of private land and communal lands which go unrecorded.

Bungoma County: socio-economic baseline and agricultural activities

63. Bungoma County has a land area of about 303,240 hectares consisting of 61,800 hectares gazetted forest reserve; 6,100 hectares non-gazetted forest; and 5,070 hectares Mt. Elgon National Park. The county has an estimated population of 1.67 million people (49 percent male and 51 percent female), 90 percent of which live in the rural areas. The county is the fifth most populated in Kenya and 52 percent of the population live in absolute poverty, with the population living below the poverty line i.e. USD 1.90 a day accounting for 0.46 percent of the national share.

64. Agriculture is the mainstay of the county?s economy with 50 percent of the population deriving their income from the sector. Major crops include maize, beans, and a variety of other food crops as well as coffee, sugarcane, cotton, palm oil, sunflowers and tobacco as cash crops. About 130,000 hectares of land is under food crops and 31,000 under cash crops. Bungoma County is the fourth largest producer of maize in Kenya.

65. Maize production covers 95 percent of the land under food crop production and 80 percent of the value of food crops produced annually. An estimated 81-100 percent of the county?s population is involved in the maize value chain, with a total of 262,063 households engaged in maize production. This constitutes 93 percent of the total farming households in the county. In 2018 a total of 0.34 million

tonnes of maize was produced in Bungoma (9.5 percent of national production). The average farm size of maize is 0.39 ha per family and the county productivity is 5.25 tons/ha. In Trans Nzoia, the average farm size of maize per household is 0.85 ha and productivity is 4 tons/ha. Thus, even though on average the maize productivity in the project target area is above the national average of 1.77 tons/ha, it is still below the global average (5.9 tons/ha) and its full potential over 12 tons/ha. A study carried out in 2017 highlights the limited number of smallholder farmers accessing extension services (12 percent), accessing loans and insurance (1.8 percent) and using certified inputs (22 percent) [9][9].

66. An estimated 258,000 tons of maize is produced per year. Markets are dominated by middlemen who buy maize at the farm gate to then sell to local consumers at local market centers, millers, schools, hospitals and the National Cereals and Produce Board (NCPB). The overall annual production does not meet consumption requirements, and as a result the county must import maize from neighboring counties.

67. Coffee production: In 2019 the land under coffee in the project area of the County was estimated at 9,400 hectares. Within the project area, there were 19 Coffee Cooperatives with a total membership of 34,003 coffee farmer. In 2019-2020 coffee cooperatives produced around 2M kg of coffee, compared to 80K produced by estates in the county. This represents around 5.7 percent of national production. The average coffee yields are generally low (average 474 kg/ha/year green beans) compared with yields in neighboring Ethiopia which are almost double (FAO, 2018). The coffee crop presents about a quarter to a half of total smallholder income. Among the poor farmers, coffee is more important for households managed by ?the poorest and oldest heads? due to limited diversification in income sources and poor management of coffee plantations (removal of secondary branches, use of chemicals and fertilizers) while younger farmers have ?more diversified farms? and are willing to carry out labor intensive activities. The number of coffee factories increased from 32 in 2015/2016 to 41 in 2019/2020.

Trans Nzoia County: socio-economic baseline and agricultural activities

68. Trans Nzoia County covers an area of 245,500 hectares. The population in 2019 was estimated at 990,341 people (49 percent male; 51 percent female). The county has an absolute poverty level of 50 percent, with 41 percent of the population living below the poverty line. Trans Nzoia County is divided into three major agroecological zones: the Upper Midland Zone covers 50 percent of the total land area, the Lower Highland Zone accounts for 34% of the total land area, while the remaining 16 percent falls within the Upper Highland Zone (least potential for farming activities).

69. Similar to Bungoma, agriculture is the backbone of the county?s economy, with the majority of the population practicing mixed crop-livestock farming. The average land holding in the county is 0.8 ha acres for small-scale farmers and 22 ha for large-scale farmers. However, the average land holding size is continuously declining due to the subdivision of land driven by population pressure. Maize, beans and Irish potatoes are the main food crops and cover 107,000, 45,600 and 1,400 ha respectively. Coffee is grown on x ha of land.

70. Maize production. An estimated 80 percent of the population is involved in maize production for both substance and commercial purposes. Total county production is estimated at 0.48 million tonnes

annually (13.5 percent of national production). The maize value chain consists of small to large-scale input suppliers, smallholder and medium-large scale producers, processors, as well as small-large scale markets. Historically, in Trans Nzoia County, maize is planted once per year during the long rains, but given the increasingly unpredictable weather occasioned by changes in rainfall patterns, growing maize twice a year is gaining in popularity.

71. In terms of post-harvest infrastructure, due to high grain post-harvest losses estimated at about 30 percent of the total output, the County Government has constructed four grain warehouses: three with a capacity of 90 kg; and one with 540 bag capacity. Nzoia grains cooperative, Chemungo grain grower?s society in Endebess and Saboti sub-counties respectively also have grain warehouses that are used by their members to store maize in anticipation for better prices.

72. Maize farmers in Trans Nzoia are price-takers because they are in no position to bargain. Prices are determined by the market forces of supply and demand. A large part of the produce is sold in informal or unstructured markets i.e. small-scale traders in rural and urban markets, with a small percentage sold in structured markets such as the National Cereals and Produce Board (NCPB) and Cargill Limited. Only a scant 5 percent of farmers had contractual arrangements (ASDSP, 2014).

73. Coffee production: In 2018 the area under coffee in the project area of the county was estimated at 2,535 hectares, with 3,910 smallholder farmers and 327 small, medium and large estates. There are seven Coffee cooperatives with a membership of 1,743 coffee farmers. In 2019-2020 cooperatives in Trans Nzoia produced around 102,000 of coffee, compared to 378,000 produced by the larger estates. Further details on coffee value chain in Kenya are presented in Annex O.

Key challenges and opportunities: coffee and maize production systems

74. During PPG consultations, farmers highlighted the challenges to accessing improved varieties of coffee seedlings, despite the existing public and private nurseries in the counties. These improved varieties are crucial as it reduces the utilization of harmful pesticides, enhances the resilience against pests and diseases and climate change impacts and allows farmers to produce more per tree.

75. Both for maize and coffee, the extension services lack sufficient capacity, and changes in institutional policies have rendered extension services more demand-driven and hampered their provision. Historically, extension officers visited farmers without invitation, but now farmers must invite the extension agents to visit them, and this seldom happens, so productivity has declined. Weak extension linkages have led to low adoption rates of technologies, an issue further aggravated by their high cost and the dearth of financial resources available to farmers. The high cost of technologies and high input costs have contributed to high production costs. This problem has been compounded by inadequate access to affordable credit facilities, which has resulted in a vicious cycle wherein every planting season is characterized by delays in seed supplies and fertilizer shortages.

76. Climate change impacts and the prevalence of pests and diseases (mainly fall army worm) were also critical challenges highlighted by farmers in both Bungoma and Trans Nzoia counties which negatively affected crop production.

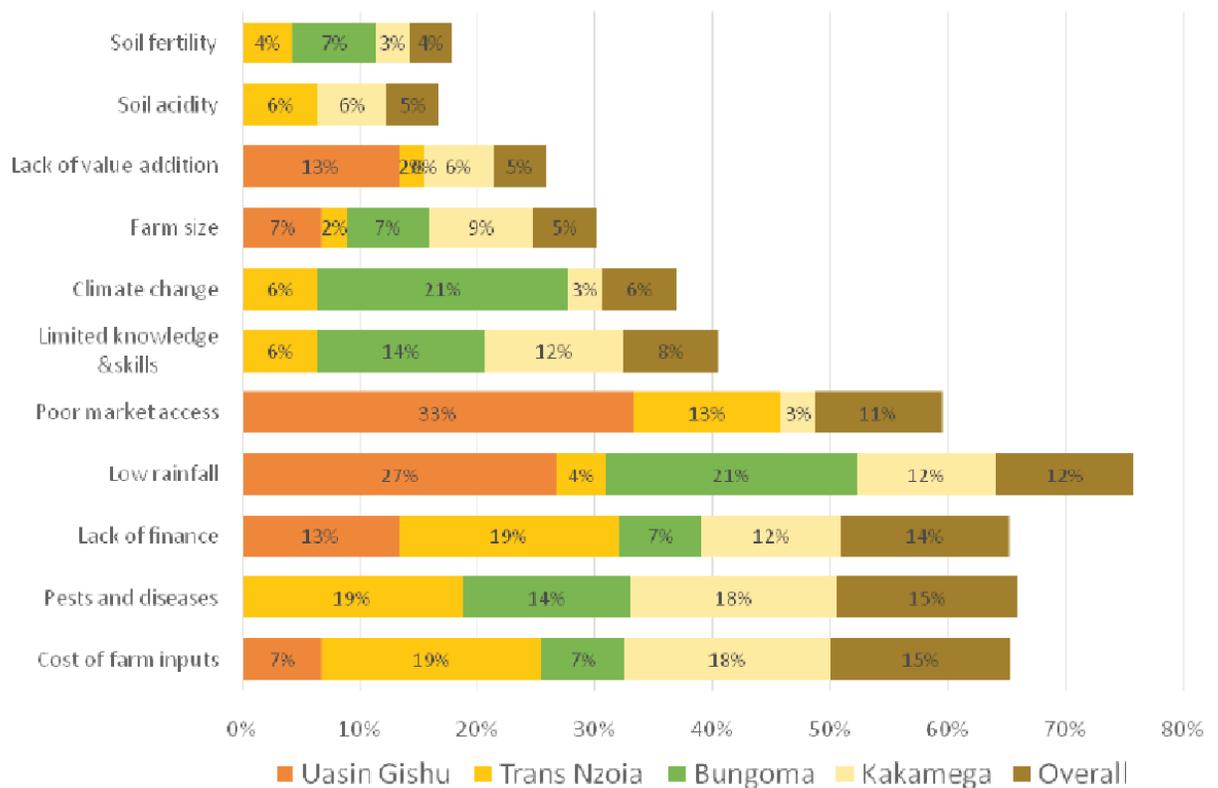## Major constraints in maize farming (% of households)

Constraint	Uasin Gishu	Trans Nzoia	Bungoma	Kakamega	Overall
Soil fertility		4%	7%	3%	4%
Soil acidity		6%		6%	5%
Lack of value addition	13%	2%		6%	5%
Farm size	7%	2%	7%	9%	5%
Climate change		6%	21%	3%	6%
Limited knowledge & skills		6%	14%	12%	8%
Poor market access	33%		13%	3%	11%
Low rainfall	27%	4%	21%	12%	12%
Lack of finance	13%	19%	7%	12%	14%
Pests and diseases		19%	14%	18%	15%
Cost of farm inputs	7%	19%	7%	18%	15%

Figure 12. Farmer?s perceptions on major constraints in maize farming (Kenya Markets Trust, 2020)

Land cover change and ecosystem degradation in Mt. Elgon

77. Like many natural and agricultural landscapes in Kenya, the current land uses in the Mt. Elgon forest ecosystem are changing rapidly with adverse effects on the environment and the provision of key ecosystem services. The general trend in the Mt. Elgon landscape is the transformation of forests, wetlands and grasslands are transformed into mixed agricultural systems ? a trend driven by unsustainable production systems, increasing population, subdivision of land into uneconomic units, weak environmental protection and enforcement in natural habitats, and limited diversification of livelihoods. As a result, the ecosystem is losing its key functions: loss of globally important biodiversity, increased GHG emissions, and drying of rivers.

78. In 1977, the dominant land cover in the Mt. Elgon landscape was natural forests, followed by grassland, bamboo, and various agricultural lands (fallow and mixed farming). The dominant agricultural production practices in the area were characterized by low intense rotation systems as can be seen in Figure 13 below.
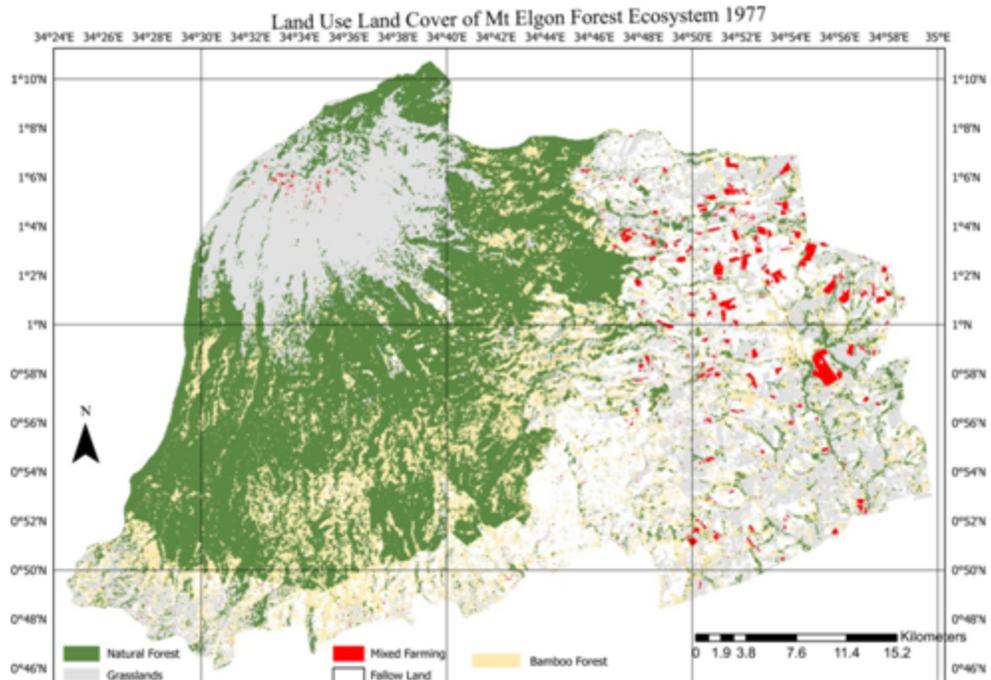
Figure 13. Land cover and land use in the Mt. Elgon landscape in percentage in 1977[10][10]

79. Between 1977 and 1999, the Mt. Elgon landscape experienced a dramatic change in cover with a significant drop in natural forest cover as well as a significant drop in agricultural fallow land, indicating that the agricultural production systems in the Mt. Elgon landscape had been intensified at the expense of natural habitats. In 2019, a continued trend of loss of natural forest cover, bamboo, grassland, but also plantation forest can still be seen, with conversion to various agricultural land use systems. Today most of the land in the Mt. Elgon landscape that is not protected as forest reserve, national park or game reserve (and even some under protection regime) is utilized for intense agricultural practices (see Figure 14 below).
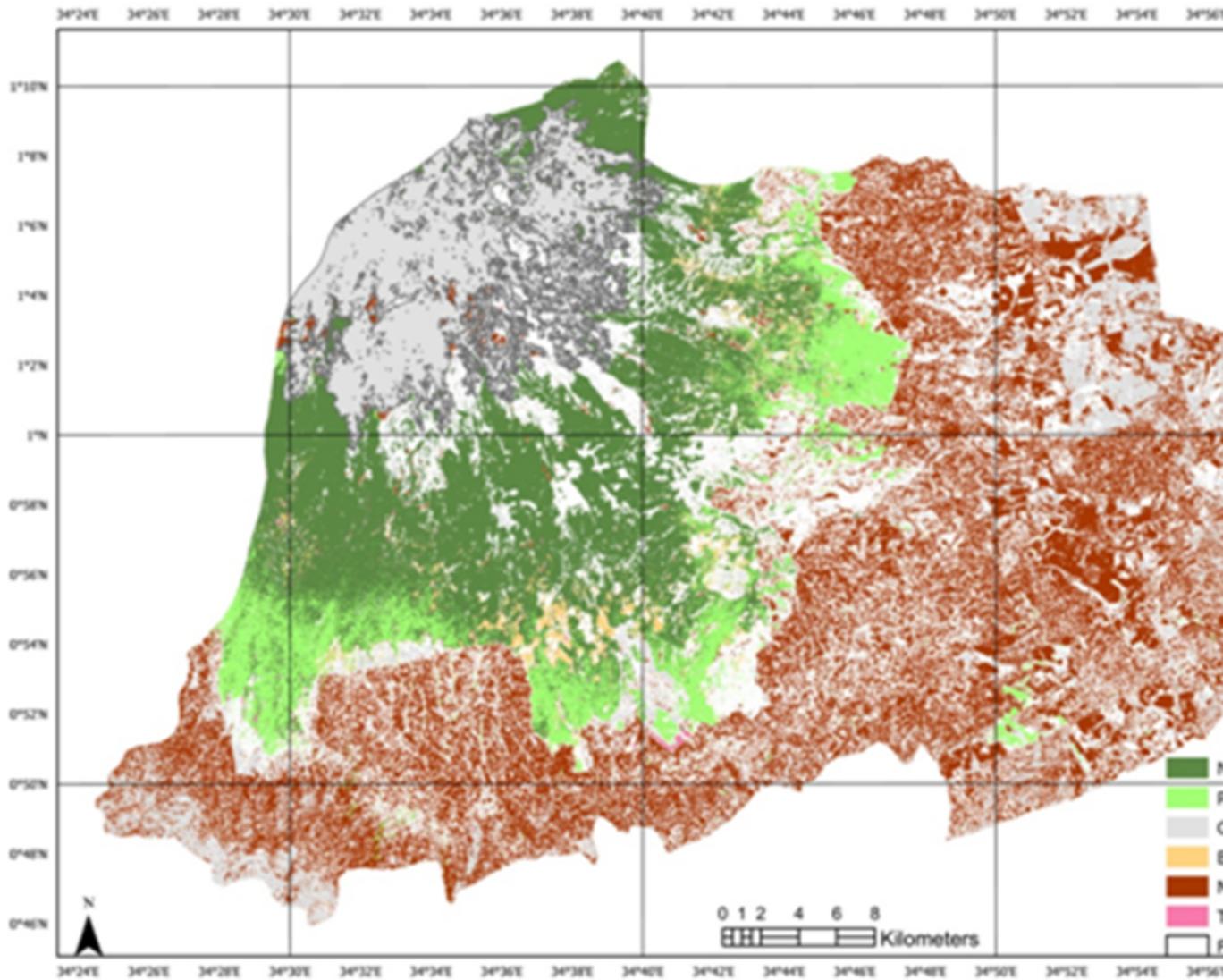
Figure 14. Land cover and land use in the Mt. Elgon landscape in percentage in 2019[11][11]

80. In percentage, the land cover change between 1977 and 2019 shows a significant drop in all zones of natural habitats with a decline of 18 percent of land under bamboo, forest decline of 15 percent and a decrease in grassland by 13 percent. Simultaneously, land under mixed farming systems and agricultural fallow, increased by almost 40 percent and plantation forest increased with 6 percent (see Figure 15 below). Thus, clearly showing a continued trend of increased areas of cultivation at the expense of natural habitats, biodiversity and ecosystem services. This trend of changing land cover dynamics in the Mt. Elgon landscape can partly be explained by previous resettlement schemes (of the Ogiek and other communities) which have targeted Mt. Elgon landscape between 1973 and 1992, but

also significant changes in population pressure and size of land holdings in line with the general trends witnessed in Kenya.
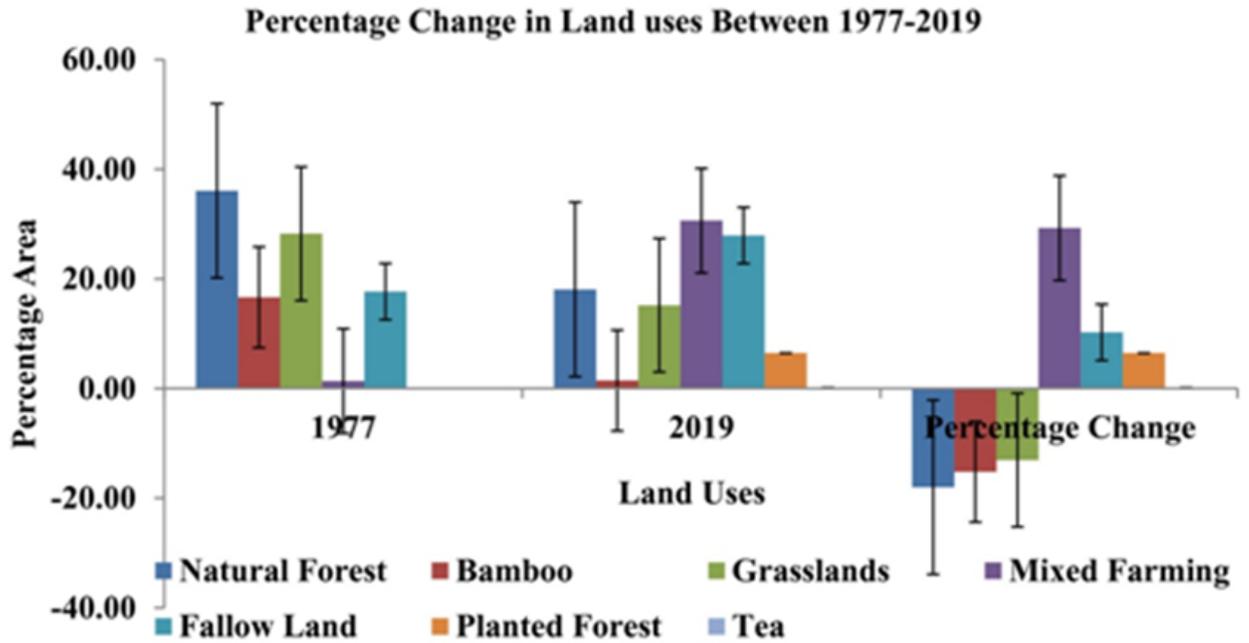

Figure 15. Land cover change between 1977 and 2019 in the Mt. Elgon landscape in percentage

81. These Land Use, Land Cover changes in Mt Elgon ecosystem from 1977 to 2019 had a serious impact in terms of carbon emissions: based on the National Forest Reference Level for each ha of montane forest forests converted into either Croplands, Wetlands or Settlement and Other lands, it resulted to a net emission of 577.95 Tonnes of CO_2 per ha. As such it is estimated that this resulted in 19,331 MT of gross CO_2 emissions.

82. A recent study by the Kenya Forestry Research Institute (KEFRI, 2019) worked with local communities to identify and rank the perceived threats to Mount Elgon?s forests, and results are presented in table 3. As shown, deforestation and overdependence on forest resources, and demand for wood products were jointly ranked the highest perceived threat to forest ecosystems. Invasive species and overstocking/grazing of livestock were jointly ranked the second-highest threat, followed by fire and encroachment. The remaining perceived threats to forest ecosystems include illegal harvesting/poaching and finally, with the lowest-relative rank, pollution. Results with no relative ranking were not perceived as threats by the local communities. Although not ranked, the study cites that poverty and lack of alternative livelihoods, in many cases, are the main underlying causes of overdependence in forest resources.

Table 3. Local community ranking of threats to Mount Elgon forests[12][12]

Threats	Relative ranking

Deforestation/overdependence	0.30
Demand for wood products	0.30
Grazing/overstocking	0.20
Invasive species	0.20
Fire	0.15
Encroachment	0.15
Illegal harvesting/poaching	0.05
Pollution	0.05
Poverty	-
Pets and disease	-
Charcoal burning	-
Low staffing	-
Government corruption	-
Perception of low value	-
Climate change	-
Population growth/settlements	-
Technology (power saws)	-

83. Cognizant of the urgent need to conserve and restore key ecosystems and landscapes, Kenya has committed to specific targets to avoid, minimize and reverse land and ecosystem degradation under the Land Degradation Neutrality framework. Mt Elgon has been identified as one of the land degradation hotspots. In order to meet the ambitious LDN and relevant goals and targets (NDC, biodiversity conservation) there must be a shift in how landscapes are managed and food system transformed. For the Mt. Elgon landscape this would require addressing several barriers described in the next sections.

Restoration Opportunities Mt Elgon

84. This assessment of forest and landscape restoration opportunities in Kenya was conducted in 2016 through the contributions and support of the Ministry of Environment and Natural Resources and the Kenya Forest Service with technical assistance from the World Resources Institute (WRI), the Clinton Climate Initiative, and the Green Belt Movement. It was noted during project preparations that many of the data sets used in this assessment were national or global in scope. This was because of the unavailability of any better local data. In this regard, the maps from ROAM were not used by this project to inform local-level planning of restoration interventions, as the data does not account for all of the specific contexts on the ground. The results were used only for providing broader indications of potential restoration opportunities in the Mt Elgon landscape, but also helped to initiate discussions on how best to proceed with landscape restoration activities in the area. In this regard, a local area on-the ?ground assessment at the project sites in Bungoma and Trans Nzoia will be undertaken with the participation of local communities. In consultation with WRI the following maps and data for the project sites in Mt Elgon were provided:
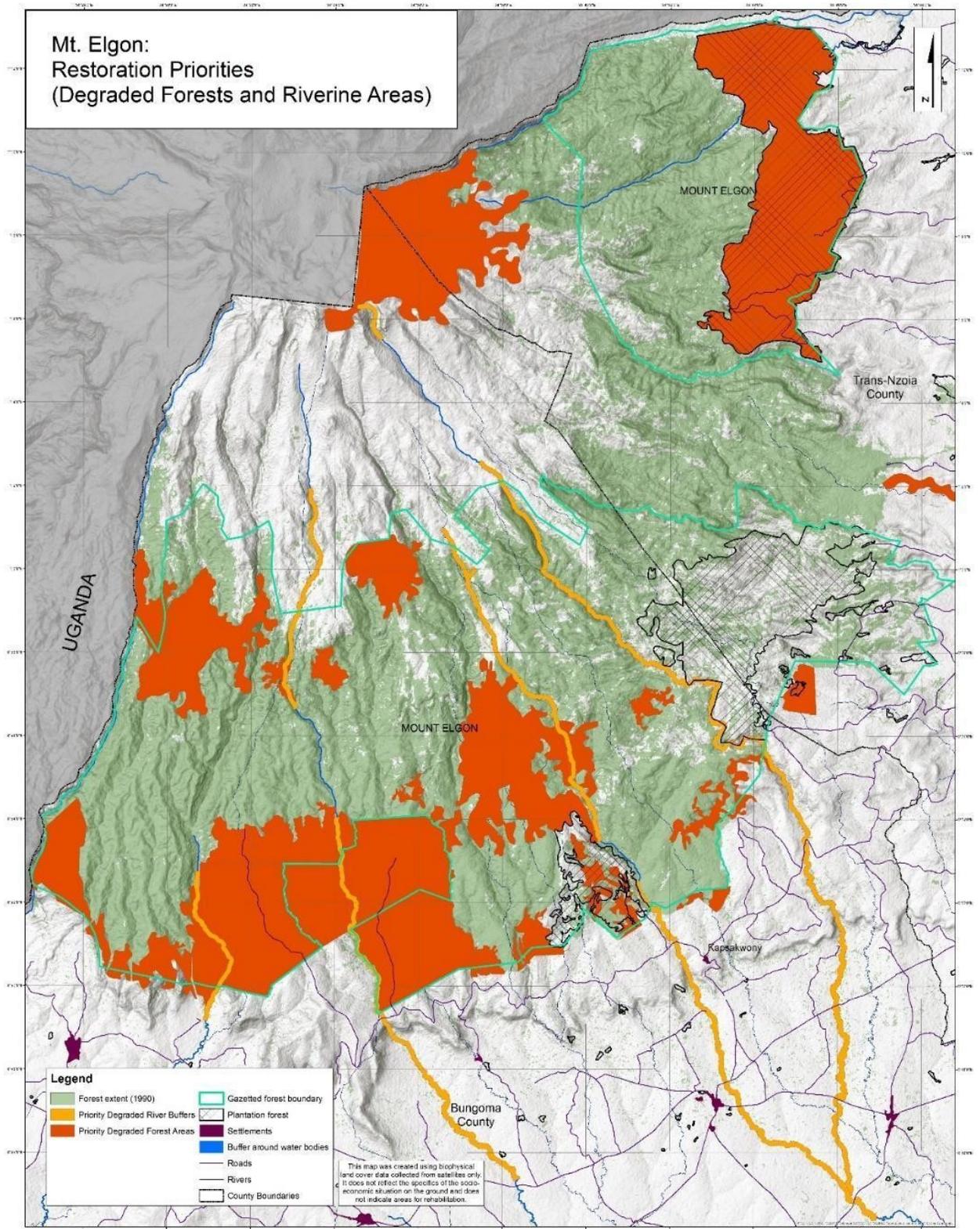
Figure 16. Priority restoration zones in Mt. Elgon (WRI, 2019)

Table 4. Restoration potential for project counties (ROAM, 2019)

Sub-Counties Restoration Potential Area (Ha)					
Trans-Nzoia County				Bungoma County	TOTALS
ITEM	Restoration Potential	Endebess Sub County	Saboti Sub County	Mt Elgon Sub County	(Ha)
1	Potential for Afforestation of Natural Forests	143	244	632	**1,019**
2	Potential for Rehabilitation of Degraded Natural Forests	5585	5,211	170	**10,966**
3	Potential for Agroforestry	27,472	18,003	11,736	**57,211**
4	Potential for Commercial Tree Plantations	255	169	25	**449**
5	Potential for Tree Buffers along Water Bodies	88	46	220	**354**
6	Potential for Tree Buffers along Roads	44	123	157	**324**
7	Potential for 2 Restoration Options	554	550	421	**1,525**
8	Potential for more than 2 Restoration Options	0.14	0.5	1	2

Barriers to be addressed

85. Barriers to sustainable coffee and staple food production systems for the conservation and restoration of Mt. Elgon ecosystem include the following:

Barrier 1: Misaligned policies and limited cross-sectoral coordination at decentralized level

86. Governance of natural resources has been undergoing a major transformation with legislative frameworks reviewed to conform to the 2010 constitutional requirements. In the case of the project counties, while it could be argued that an overarching environmental and natural resources regulatory framework exists, it is quite fragmented. Several policies only focus on specific sectors, with conflicting messages that promote institutional rivalry as witnessed between the Kenya Wildlife Service (KWS) and Kenya Forest Service (KFS) and between Kenya Water Tower Agency (KWTA) and Water Resource Authority (WRA). Similarly, there is conflict between Community Forest Associations (CFAs) and Water Resource User Associations (WRUAs) in terms of forest management as river sources and streams fall under the jurisdiction of CFAs when in the forest, while WRUAs manage the sub-catchment or river-basin outside the CFA?s jurisdiction. These community-focused groups are each supported by different institutions and are focusing on one main natural resource (water or forest). As such, there is a general lack of cross-sectoral and integrated NRM as these governance mechanisms are focusing on one aspect (water, forest) and not the landscape at large. Communities have also not been empowered to participate in local planning processes, even though there is emphasis and requirement for community engagement in the constitution.

Barrier 2: Limited institutional and technical capacities to support integrated landscape planning and implementation

87. Integrated landscape management (ILM) is an approach that is increasingly used globally to achieve integrated solutions that sustain vital ecosystem services, enhance food production and improve human well-being. In order to identify and maximize the synergies between the different sectors and minimize trade-offs between land-users, a good understanding and knowledge of the landscape context and interactions by all stakeholders involved are neeeded. A variety of novel approaches, systems and technologies is being promoted at the national level (e.g. National FLR Action Plan under development, NDC, LDN targets, Integrated Water Resources Management and Water Efficiency Plan, Participatory Forest Management Plans and guidelines) to encourage participatory planning at the landscape level. The national policies need to be domesticated and contextualized at the decentralized level. This requires solid technical capacities of institutions and community organizations, which is currently lacking in the project counties.

88. Community organizations such as Community Forest Associations and Water Resource User Associations are important governance structures in the local management of natural resources. These organizations are often not conversant or knowledgeable of the ILM approach and cannot functionally take part in stakeholder meetings and influence policy and/or planning. Subsequently, weaknesses in organizational capacities of communities and community organizations to collectively take integrated action in building and maintaining the resilience of their socio-ecological landscapes continue to be a significant barrier.

Barrier 3: Limited technical capacity and incentives for smallholders/cooperatives to implement sustainable climate-smart agricultural practices

89. Inadequate skills in Good Agricultural Practices (GAP). Coffee trees require nutrients and the canopy to be maintained at optimal levels. Most of the farmers in the project area do not possess

appropriate sustainable farming skills and lack access to appropriate farming tools. As a result, there is poor canopy and soil management, leading to high infestation by pests and diseases. There is also an issue accessing quality inputs (such as fertilizers and least-harmful pesticides) and associated information to safely use them contributing to low coffee yields (an average of 2kg per tree) which are also of low quality.

90. Most of the smallholder farmers in the landscape do not have the appropriate facilities to store the maize for a long time once it is harvested, which leads it to become infested with pests and contaminated by aflatoxin. Previous programs have promoted hermetic storage bags in western Kenya. Their uptake by smallholder farmers has been limited by lack of awareness on the technology, lack of knowledge and/or information on their effectiveness and use, especially among farmers who were not organized in groups as well as affordability.

91. Inadequate supply of quality, disease-tolerant coffee varieties. For farmers to reduce the quantity of pesticides used in coffee farming, there is need for adoption of varieties resistant to Coffee Berry Disease (CBD). The Coffee Research Institute (CRI) has the sole mandate of producing coffee seeds. CRI either sells the seeds to registered nurseries which produce seedlings or produces the seedlings in CRI nurseries. CRI operates a nursery in both Trans Nzoia (Kitale) and Bungoma (Namwela). There are also private nurseries owned by individual farmers and coffee cooperative societies. These sources of seedlings are not sufficient to meet local demand. The individual and cooperative nurseries are generally small and cannot meet the demand for coffee seedlings.

92. Limited knowledge and application of Good Manufacturing Practices (GMP) and inadequate processing infrastructure. To maintain the quality of coffee after harvesting, proper post-harvest handling and processing is crucial. For wet processed coffee, which composes more than 95 percent of all the coffee grown in the project area, harvesting should be done at the right stage and pulping done within 8 hours after harvest. The pulping machine should produce whole and not split beans. Fermentation should not last longer than 24 hours and the fermentation tanks should be in good condition. The drying beds should be adequate to allow the coffee to be spread out evenly to allow even drying. After drying to the required moisture level, the coffee should not come into contact with moisture as it happens when rained on. The situation in the project area is such that some coffee is delivered to the factory a day after harvest, the pulping equipment are old and spilt the beans, fermentation takes more than 36 hours due to shortage of the drying beds which are also in a dilapidated condition and so do not allow for proper drying of the beans. Due to the openness of the drying beds, sometimes the beans get rained on by erratic rains which are common in this area. These contribute to post harvest loss of quality of coffee and the resultant low prices.

93. In Maize, limited technical capacity amongst smallholder farmers to implement sustainable agricultural practices has led to poor use of fertilizer which has contributed to low levels of maize production and productivity in the landscape. Poor fertilizer application is due to the fact that most farmers have not conducted soil tests and are unaware of their soil needs. They continue to apply the basal dressing fertilizer (Diammonium Phosphate, DAP) and top-dressing fertilizer (calcium ammonium nitrate, CAN) which has driven down the soil pH. These fertilizers were introduced by the Government and have historically been offered through a subsidy programme.

94. Maize monocropping is driving the spread of pest and diseases, and as a result more fertilizers, pesticides and other agrochemicals are required to sustain production. The maize stalk borer continues

to be a great challenge in maize production in the landscape, with farmers continuously and consistently using pesticides.

95. Agricultural extension service plays an important role in sharing knowledge, technologies and agricultural information amongst farmers, and to other actors in the economy. Before devolution, recruitment and deployment of extension staff was conducted centrally by the National Government. The staff were provided with office accommodation and transport to visit and offer extension services to farmers. Over time, the numbers of extension staff in relation to the number of farmers had declined due to a freeze on employment in the early 1990s. This had resulted in the government deploying group approach methods as well as promoting demand-driven extension service provision. Following devolution, the Agriculture Extension services were to be administered by the County Governments. The Counties inherited a system that had few extension officers, and unfortunately their budgetary allocation to agriculture is often inadequate to employ adequate extension staff to serve all the farmers in the counties leading to an average ratio of extension officers to farmers of about 1:1000 against the desired level desired level of 1:400 (ASTGS[13][13]). As a result, an element of cost-sharing where the farmers pay some basic logistical costs to access the extension services from the Government staff was adopted in some counties for some commodities. However, by and large the services are free, and the extension staff reach out to the farmers, who are organized, with technologies and appropriate messages. To a limited extent we also have the private sector, mainly the input manufacturers, offering extension services. We also have NGOs who offer extension services to farmers. This is especially strong in the coffee value chain in Bungoma County where Solidaridad and E4Impact support coffee farmers to acquire certification.

96. Some organizations use digital platforms to contact farmers with messages. However, sometimes smallholder farmers cannot access the services because of their associated costs and because of their lower literacy levels. The government, through programmes such as the World bank funded NARIGP[14][14] and KCASP[15][15], has embraced more participatory and demand-driven extension approaches such as the Farmer Field Schools (FFS) that tap into farmer participation and private sector contribution in providing extension services at scale. The FOLUR project will apply a similar approach for effective delivery of advisory services.

Barrier 4: Complex and long coffee value chain, unstructured markets for maize, weak professionalization and organization of supply chain actors

97. Kenya?s policies and legal frameworks expose small-scale coffee farmers to very high risks. Farmers without a marketing license are required to contract and authorize marketing agents to sell their coffee through the Nairobi Coffee Exchange (NCE) and they only get paid after exporters purchase the coffee which may take up to 5-6 months. This is because Kenya?s coffee sector rules state that a batch of coffee belongs to the farmer up to the point of sale. Thus, the farmers are obliged to bear risks at all stages of marketing including quality deterioration, theft, and exchange rate volatility. In addition, their earnings are cut by intermediaries - marketers and millers to sell their product through the NCE. Green Coffee buyers highlighted that they do not always get the quality and quantity required

by their customers. They also complained about the many costly licenses they must acquire before they can trade in the commodity.

98. Only 5 percent of Kenya?s exported coffee is roasted, and the remainder is exported as clean coffee. Kenya is missing out on the added value from the sales of roasted and packaged coffee. This despite the fact that Kenyan coffee is considered to be one of the best coffees in the world. Indeed Kenya?s AA coffee is regarded as a premium coffee in the world.

99. Selling coffee through the NCE makes prices very vulnerable to the fluctuating global prices. Stakeholders indicated that the high cost of participating in the auction limits the number of participants and therefore lowers competition. The long value chain of moving coffee from the farm to the factory, to the miller and finally to the auction, from where the exporters buy, also substantially reduces the dollar share the farmers get. This is because all the value chain actors in-between the farmers and the ultimate consumer share the consumer dollar. Information asymmetry also contributes to farmers not accessing timely market information, which they can use to make decisions.

100. As mentioned earlier, most farmers in the project area sell their maize as individuals in informal markets and rely on informal markets which offer lower prices as compared to the formal markets. There are few functional cooperatives involved in maize marketing in the region (e.g., Nzoia Grain Marketing and processing co- operative society Ltd in Endebess) that have potential to sell maize in bulk to gain economies of scale.

Barrier 5: Insufficient public and private financing for the long-term implementation of FLR

101. Since devolution, counties need to budget for NRM and environmental issues, but this is often insufficient. To enable Kenya to scale-up FLR across the country, both the national government and County government will need to provide sustainable long-term vision and funding for this. But this will not be enough as FLR requires substantial investments from both public and private sector. Payment for Ecosystem Services (PES) schemes are an increasingly popular conservation and resource management tool, particularly in developing countries. They include a broad range of public and private financing arrangements for the delivery of ecosystem services and have become a significant policy instrument in the last 15 years.

102. In Kenya, a cross-sector study led by the Kenya Forestry Research Institute (KEFRI, 2018) (identified 15 PES projects for carbon sequestration, biodiversity conservation, watershed protection and a bundled combination of these services that have been implemented in the country. There is therefore an opportunity to build on the rich experience in Kenya on PES, to develop a sustainable financing mechanism for the conservation and restoration of the Mt. Elgon landscape.

2) Baseline scenario and any associated baseline projects

103. The proposed GEF FOLUR project in Kenya builds upon the following baseline of planning frameworks and programmes:

104. County Integrated Development Plans (CIDPs). These are five-year plans that provide an overall framework for development and public investments at county level. CIDPs aim to coordinate the work of both levels of government in a coherent plan to improve the quality of life for all and contribute towards devolution.

105. The current CIDP for Bungoma County (2018 ? 2022) contains several relevant sector priorities and interventions:

a)   Increase agricultural production and productivity by: improving agricultural infrastructure and market access of agricultural commodities; increasing access to agricultural finance services through strengthening farmer groups, commodity associations, platforms, federations and cooperatives; promoting sustainable land management (SLM) practices and time and labor saving technologies targeting women farmers.

b)   Improve agricultural markets and value addition by: promoting private sector investment in value addition; building capacities of farmers to invest in agro-processing and agri-entrepreneurship.

c)   Restore and maintain ecosystems: enforce compliance with environmental and natural resources, legislation and standards; develop and implement a program on integrated ecosystems assessments, management and restoration; promote ecosystem-based adaptation to climate change; develop county-wide community based and institutional tree planting; scale-up agroforestry-based alternative livelihood systems; develop a robust and functional County Forest Monitoring System.

106. Trans Nzoia CIDP (2018-2022) contains the following priorities:

a)   Innovative, commercially oriented and modern agriculture: promote the adoption of conservation agriculture techniques through modern conservation agriculture equipment; expand the capacity of the current nurseries to produce high-quality seedlings for coffee, tissue-culture banana, passion fruits, chili and avocado leading to crop diversification; promote value addition through strategic support for acquisition of milling plants for coffee and maize; improving post-harvest management and support to farmers through subsidies on storage materials.

b)   Rehabilitation and protection of Mt. Elgon and Cherang?any hill water towers.

107. The strong alignment of the FOLUR project with the CIDPs means that the project will contribute directly to the implementation of the identified priorities, bringing the ecosystem conservation and restoration and agricultural production and productivity enhancement objectives together through ILM. This also presents an opportunity for the project to integrate FOLUR objectives and priorities into new county frameworks and budgets that will be developed in 2022.

108. The National Coffee Revitalization Programme. Due to the downward trend of Kenya?s coffee production and its relative contribution to GDP, in 2016 the Government of Kenya embarked on Coffee Sub-Sector Reforms. A Presidential task force was created to analyze the situation and provide recommendations. A national coffee revitalization programme was proposed, anchored on the National Task Force Report on the Coffee Industry. The overall objective of the project is to increase coffee production and quality. Activities include improving access to inputs, modernizing processing infrastructure and strengthening the capacity of cooperatives. The first phase covers 8 main coffee producing counties (Kiambu, Machakos, Muranga, Nyeri, Embu, Tharaka Nithi, Kirinyanga and Meru), with plans to expand to Bungoma and Trans Nzoia in the second phase. The programme seeks to support farm expansion, adoption of improved coffee varieties, increased use of affordable/subsidized farm inputs, and training of farmers on Good Agricultural Practices (GAP). To enhance the availability of affordable credit to coffee growers, the Government established the Coffee Cherry Advance Revolving Fund. The government put in 3 billion Kenya Shillings (USD 30 million)

into this Fund and its operations started in 2020. This fund serves as a source of finances to enable farmers to meet their investment needs as they await payments from coffee marketers.

109. The Kenya Coffee Platform (KCP) was established in 2018 to spearhead Public Private Partnership to address the dramatic decline in coffee productivity and a lack of sustainability of the sector. KCP is part of the Global Coffee Platform (GCP) bringing together coffee producers, traders, roasters, sustainability standards, governments, NGOs and donors for collective action towards sustainability. KCP operates at national and county level ? with Coffee County Platforms existing in a few counties. The current membership of the KCP Steering Committee includes:

a)   *Public*: The Ministry of Agriculture, Livestock Fisheries and Cooperatives; Council of Governors; County Executive Committee (CEC) Members of Agriculture Caucus; Agriculture and Food Authority - Coffee Directorate; Coffee Research Institute; Nairobi Coffee Exchange; Commodities Fund; and a few other public institutions.

b) *Private*: Kenya Coffee Producers Association; Kenya Coffee Traders Association (KCTA); Cooperative Bank of Kenya; Commercial Coffee Millers and Marketers association.

c)   *NGOs and global partners*: GCP; Solidaridad; Rainforest Alliance; Hivos; International Women in Coffee Association (IWCA); World Coffee Research (WCR); Fairtrade Africa (FTA).

110. With support from the German Federal Ministry of Foreign Affairs and GIZ, the Dutch Ministry of Foreign Affairs through Rainforest Alliance and Solidaridad, and other partners, KCP has developed the Kenya Coffee Sustainability Manual. The manual harmonizes training material for sustainable coffee production in Kenya to ensure that training providers have the best and latest knowledge to share with farmers. More than a thousand master trainers (public-private extension providers) have been trained so far. KCP also organizes periodic power breakfasts and webinars with stakeholders to discuss critical policy and other issues in the sector.

111. KCP is an important platform for driving transformation of the coffee value chain. The FOLUR project will work closely with KCP to facilitate the establishment of the county-level platforms in Bungoma and Trans Nzoia, and to extend the use of the sustainability manual in the delivery of capacity building program under component 2.

112. The Traceable Organic Coffee from Kenya (?TRACE Kenya?) project (2020-2023) aims to address existing barriers to organic certification. The project targets 15,000 smallholder coffee farmers in Bungoma, Kericho and Nandi counties, building their capacity for producing coffee that meets global organic market standards. The TRACE Kenya project is funded by the Ministry of Foreign Affairs of Denmark (DANIDA) and implemented by Solidaridad East and Central Africa in partnership with African Coffee Roasters (ACR) and Solidaridad Europe. The project is working closely with KALRO, CRI and County Governments. Under the project, the Coffee Research Institute (CRI) sensitizes and trains farmers on innovative organic coffee farming practices to facilitate their successful transition from the conventional production system. In addition, TRACE Kenya supports coffee cooperatives in Kenya to foster adoption of the requisite internal control systems towards organic certification. Certification of both farmers and cooperatives is envisioned to open up vast market opportunities in Europe and the US. The FOLUR project will collaborate with the Coffee Research Institute and other partners to develop context specific FFS curriculum and innovative organic coffee

farming practices will be integrated building on TRACE experience. The project also offers opportunities for FOLUR farmers to learn from through demo days and peer learning which will enable farmers to see the benefits from certification firsthand.

113. Rainforest Alliance (RA) has developed an East Africa Connect strategy to better connect people and nature through the ?beyond certification? programme in tea and coffee. In Kenya the focus areas are Mt Kenya, Mt Rwenzori and Mt Elgon. Over 750,000 tea and coffee farmers are RA and UTZ certified and Rainforest Alliance has created a national network of trainers (Associate Trainer Network or ATN) which are proficient with the newest standard on RA certification after the merger of RA and UTZ in 2021. They also developed a global Rainforest Alliance Learning Network. The FOLUR project will build on both networks to support farmers in Mt Elgon to go through the certification process and learn from past and ongoing experiences mainly in the Mt Kenya area.

114. E4Impact Foundation is an alliance between organizations, companies and universities for the promotion of impact entrepreneurship (focus on agri-entrepreneurs and green- entrepreneurs) in Africa and fostering economic collaboration between Africa and Europe. They run training programmes from their Nairobi office. An accelerator programme connects entrepreneurs to providers of seed grants, provides customized training, access to investors, coaching and mentorship. E4Impact has established a county business incubation program for green growth in Kajiado County with plans to expand to other counties. There is also a new E4Impact coffee project whose aim is to improve income of smallholder coffee producers operating in rural communities in Kenya, with strong focus on participation of women and youth. The proposed capacity development of coffee farmers and their cooperatives by E4Impact could significantly complement activities of component 2 of the FOLUR project, by sharing knowledge and best practices.

115. The Agriculture Sector Development Support Programme Phase Two (ASDSP II)[16][16] is one of the key programmes under the Ministry of Agriculture, Livestock, Fisheries and Cooperatives and 47 county governments. It is a five-year programme, running from 2017 to 2022, whose goal is ?To Contribute to the transformation of the crop, livestock and fishery production into commercially oriented enterprises that ensure sustainable food and nutrition security?. It aims at enhancing the capacity of different Priority Value Chain Actors at different levels of commercialization to tackle the problems that hinder full commercialization of Agriculture. The Government of Kenya (National and 47 county governments) with strong participation of the private sector implements the programme. The Government of Kenya, Swedish International Development Agency (SIDA) and European Union (EU) finance are the main funders of the programme. The programme has four main components including 1) Productivity of Priority Value Chains increased 2) Entrepreneurial Skills of Value Chain Actors (VCAs) strengthened 3) Access to markets by Value Chain Actors improved 4) Structures and Capacities for Consultation, Cooperation and Coordination strengthened. The Government has applied for a six-month extension of the programme due to COVID-19 and also embarked on formulating a third phase. Given the importance of maize in the region, ASDSP also prioritized maize and facilitated the development of a strategic value chain action plan for maize in Trans Nzoia. ASDSP went further and set a maize platform which brings together all actors in the value chain. FOLUR project will replicate the same with ASDSP implementors in Bungoma and use the lessons learnt so far from the

ongoing productivity and market access initiatives. These platforms will also upscale learnings from the FOLUR programme and upscale to the other sub-counties.

116. The National Value Chain Support Programme (NVSP). NVSP, funded by the Government of Kenya and implemented by the Ministry of Agriculture, Livestock, Fisheries and Cooperatives, State Department for Crop Development and Agricultural Research, was launched in 2020. Its main objective is to provide approximately 1.4 million high needs farming households with access to a wide range of inputs through nationwide e-voucher subsidies as envisaged in the Agricultural Sector Transformation and Growth Strategy (ASTGS). The programme has developed and operationalized a web-based Electronic Inputs E-voucher Management System with the objective of enhancing efficiency in the management of agricultural inputs subsidy. This system was successfully piloted and is currently being rolled out in 12 counties. Both Bungoma and Trans Nzoia Counties have 4,000 smallholder farmers registered and benefiting under this programme. The e-voucher system enables farmers to access inputs, after paying 60 percent of the total amount, from accredited local agro-dealers. The agro-dealers receive payments for the sold inputs, from the bank, via mobile money. The system consists of: a) Farmers Registration Module b). E-Voucher Management Module, c) Payment Module, d) Communication Module, e) Stock Management Module, f) User Management Module, g) Reporting Module. Currently the Counties use the same platform to disseminate agriculture extension information. This database and services will also be valuable to the FOLUR project in dissemination of additional relevant project information / initiatives relevant to production, productivity and market access through the Business Hubs.

117. The Kenya Agricultural Carbon Project (KACP) is the first soil and agricultural carbon project in Africa. The project is being implemented by Vi Agroforestry with support from BioCarbon Fund of the World Bank. The overall project objective is carbon sequestration through the adoption of sustainable land management (SLM) practices in Western Kenya. The expected outcomes include that smallholder farmers in Kenya will be able to access the carbon market and receive additional carbon revenue streams through the adoption of productivity enhancing practices The project is promoting the adoption of SALM practices on approximately 45,000ha in Nyanza and Western region. The project has about 3,000 registered farmer groups with about 60,000 small-scale subsistence farmers who carry out mixed-cropping systems on 45,000 ha. The project area is divided into two project locations Kisumu and Kitale, both with around 22,500 ha of potential project area. The project is achieving its goal using a holistic and focused farm enterprise extension approach and by supporting farmer groups to establish village savings and loan associations Carbon credits are generated and claimed using the approved VCS methodology VM00176: Adoption of Sustainable Agricultural Land Management. The methodology is specifically addressing the need for a robust but cost-efficient monitoring system and to assist smallholder farmers to reach their objectives (productivity, food security and climate resilience). The FOLUR project will take stock of the mechanisms and approaches promoted by this project and see how to integrate it into further development of possible PES scheme for the Water Tower.

118. Kenya Forest Service Programme. The Kenya Forest Service (KFS) manages the vast Mount Elgon Forest that covers approximately 100,272 ha. KFS management includes: forest resource protection through joint policing by security agencies and stakeholders; conservation and restoration of degraded areas within the ecosystem with communities and conservation partners; collaboration with county governments, communities and other partners in development of Participatory Forest Management Plans (PFMPs); contribution to food security through the Plantation Establishment and

Livelihood Improvement Scheme (PELIS). KFS works very closely with Community Forest Associations (CFAs) under the Forest Management Agreements (FMAs). There are 7 CFAs in Trans Nzoia and 3 in Bungoma County. Under the Bonn Challenge the government of Kenya has pledged to restore 5.1 million hectares of forests by the year 2030. Since 2017, 374 million tree seedlings have been produced across the country by KFS, government institutions and private tree nurseries. A total of 78 million tree seedlings have been planted in natural forests during the reporting period. Under the KFS Adopt-a-Forest Initiative a total of 18,000 hectares has been rehabilitated.

119. For the FOLUR project, KFS will provide co-financing in the form of capacity support to both counties and community associations as well as supporting the provision of seeds and seedlings through their ongoing programmes. The FOLUR project brings to the ongoing forest rehabilitation efforts, the strategic planning and implementation of restoration and innovative financing solutions to ensure sustainability of FLR in the project landscape.

120. The FAO/Forest and Farm Facility (FFF) is a global programme supporting forest and farm producers and their organizations to enable Climate Resilient Landscapes and Improved Livelihoods. The programme works directly with government institutions and smallholder producer organizations to develop facilitating policies, entrepreneurship, adaptation and mitigation to climate change and improved and equitable access to social and cultural services within forest and farm value chains. In Kenya FFF is working in Bungoma (and 6 other counties). Through small grants, FFF has supported 6 smallholder producer organizations entrepreneurship development focusing on farm and forest related value chains. FFF is working with Cheptais Community Forest Association to support forest and landscape restoration as well as sustainable livelihoods. The programme is also supporting the Western Tree Planters Association (WETPA) to undertake farm tree census in Bungoma to facilitate the development of a business plan for farm forestry. WETPA is a member-based organization and operates in 4 counties i.e. Bungoma, Kakamega; Busia and Trans-Nzoia.

121. The African Crane Conservation Programme in Western Kenya is aiming to secure and improve the ecological integrity of key habitats for Cranes in Kenya. It is working in collaboration with local communities and key stakeholders while monitoring and mitigating threats to the habitats of the Grey Crowned Cranes (GCC). Their focal areas in Kenya are the counties of Nandi, Uasin Gishu and Trans Nzoia with future plans to expand to Homabay, Kisumu and Bungoma which also hold significant crane populations. This conservation program has listed agriculture- motivated encroachment of wetlands as the highest threat to Cranes in Kenya. The drivers of this ecological encroachment include: low agricultural productivity, over reliance on rain-fed agriculture, poor land management practices, climate change and poor accessibility to quality information. Some of the interventions that are being employed in Western Kenya are; research and monitoring to understand threats, breeding habits, promotion of community awareness and youth education, support to community livelihood, spring protection and ecosystem restoration, promotion of climate smart agriculture by training extension officers and farmers, setting up of demonstration farms.

122. In 2021 GNI$_{plus}$ and AECOM undertook a scoping study to evaluate the potential for setting up a PES scheme on the Kenyan side of Mount Elgon. It is envisaged that the payments generated through the PES scheme could provide a sustainable source of finance for the conservation of the natural ecosystem and indigenous forests present in the water tower. This would have the co-benefit of supporting livelihoods for local communities and their cultural heritage, protection and conservation of

the cave elephants and other wildlife in the area. Mount Elgon provides an excellent prospect for setting up a PES scheme thanks to the unique, highly valuable services it provides, and their wide range of beneficiaries. This scoping stage is the first in a four-stage framework for designing and implementing PES and sets out the key parameters for how a scheme could be implemented.

3) Proposed alternative scenario with the project?s Theory of Change and description of project components

123. As reflected in the previous section, there are quite a number of key initiatives within the agricultural and forest sectors, at both national and county-level. The challenge and opportunity for the FOLUR project is how bringing all these fragmented initiatives together for greater impact at landscape level, through an integrated landscape management approach. The key aspects of the project strategy, in line with the overarching FOLUR impact pathway, include the following:

a) Selection of the Mt. Elgon landscape within Bungoma and Trans Nzoia counties based on its vital importance for biodiversity conservation, carbon sequestration, water provision and agriculture. The landscape is threated by expansion of agricultural expansion into gazetted areas and buffer zones. The renewed focus on expanding coffee production and associated public investments, it is important to put in place ILM systems for the sustainable management of the Mt. Elgon Ecosystem.

b) Coordination and inclusive planning are key for the success of a landscape approach. As such the project will promote the involvement of all landscape and value chain, strengthen existing platforms or establish new ones to facilitate dialogue between public and private sector, between different land-user groups and ensure the voice of the vulnerable and marginalized groups. Indigenous people?s groups such as the Ogiek community, are important stakeholders within the landscape which have lived for many years in harmony with the forest ecosystems and will be valuable actors to engage in the integrated management of the landscape. The project will build on their existing networks (such as Council of Elders) and support them to improve their context-specific livelihoods and sustainable management of both the forest ecosystems and biodiversity associated with it.

c) While the primary focus of the FOLUR project is on coffee, the project has taken into consideration the fact that the landscape is dominated by maize which is contributing greatly to the degradation. Therefore, and in line with the integrated approach, it will promote sustainable agricultural and management practices that extend to maize and other crops.

d) Women and youth are important stakeholders who do not have equal access to, or benefit from the value chains targeted by the project. They often are not fully involved in planning and decision-making on land use and as such the project will empower them to fully participate in the integrated land planning and implementation through targeted support. Furthermore, it will also promote opportunities for women and youth to fully engage in the coffee and maize value chain (e.g. development of youth-led small-scale enterprises to provide services for both value chains, skills training on pruning and grafting). This also is valid for the Ogiek community which are important local stakeholders within the landscape which also haven?t been fully integrated into overall landscape planning and management.

e) Diversification of crops and livelihoods are key to reduce pressure on the remaining forests. The project will promote traditional vegetables in at least one county - to contribute to livelihoods diversification, nutrition security and agrobiodiversity conservation and resilience to commodity price volatility and climate change, and COVID-19 related impacts.

124. The section below presents the project?s Theory of Change (ToC), which sets out the causal-effect logic that helps us understand how the interventions of the project are expected to lead to the desired results (outputs, outcomes and impacts). This theory of change model, therefore, shows the paths which the project will follow to achieve the expected outcomes. If:

?   an enabling environment is created by the national and county governments for integrated planning across the different sectors and landscape actors;

?   local farmers can access context-specific technical support;

?   smallholder farmers and communities perceive and receive tangible socio-economic benefits from adoption of sustainable practices/technologies,

?   sustainable financing and governance mechanisms are available to support conservation and restoration;

?   landscape stakeholders perceive the benefits through knowledge exchange and sharing;

then the transformation of the coffee, staple food production systems around the Mt Elgon landscape will be achieved and it will enhance resilience and sustainability in the long-term future.
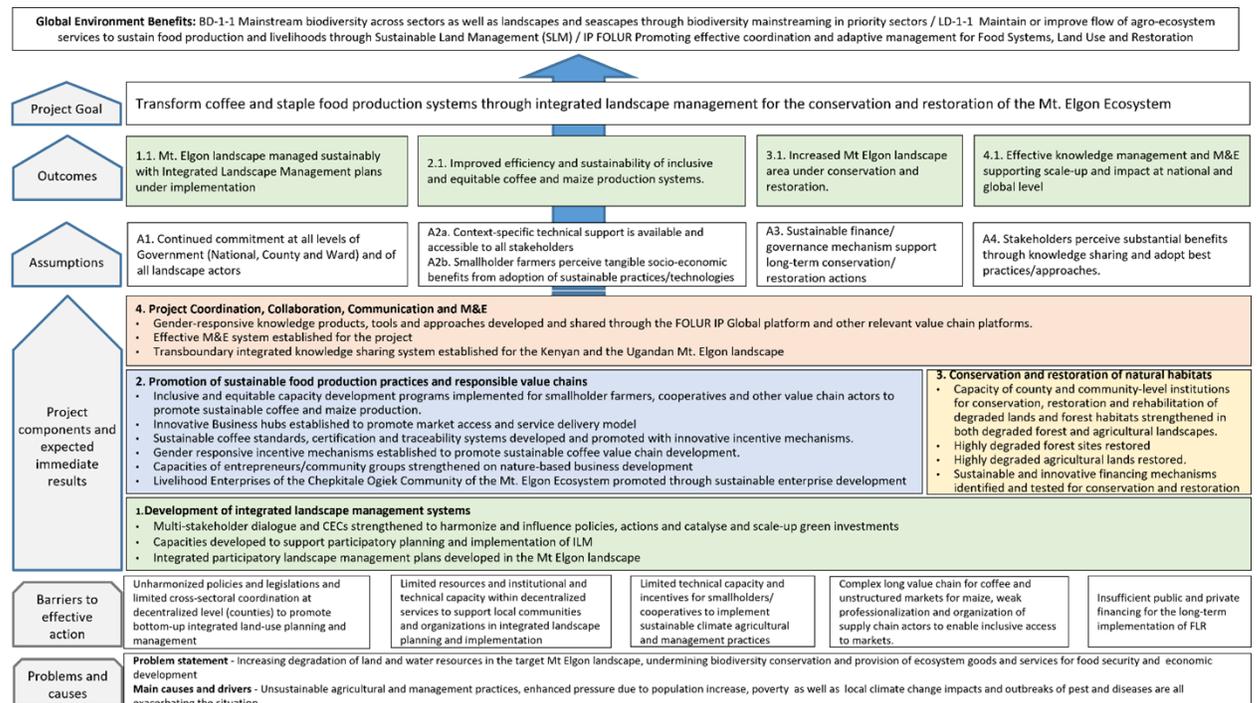

Global Environment Benefits: BD-1-1 Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors / LD-1-1 Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM) / IP FOLUR Promoting effective coordination and adaptive management for Food Systems, Land Use and Restoration

Project Goal
Transform coffee and staple food production systems through integrated landscape management for the conservation and restoration of the Mt. Elgon Ecosystem

Outcomes

1.1. Mt. Elgon landscape managed sustainably with Integrated Landscape Management plans under implementation

2.1. Improved efficiency and sustainability of inclusive and equitable coffee and maize production systems.

3.1. Increased Mt Elgon landscape area under conservation and restoration.

4.1. Effective knowledge management and M&E supporting scale-up and impact at national and global level

Assumptions

A1. Continued commitment at all levels of Government (National, County and Ward) and of all landscape actors

A2a. Context-specific technical support is available and accessible to all stakeholders
A2b. Smallholder farmers perceive tangible socio-economic benefits from adoption of sustainable practices/technologies

A3. Sustainable finance/ governance mechanism support long-term conservation/ restoration actions

A4. Stakeholders perceive substantial benefits through knowledge sharing and adopt best practices/approaches.

Project components and expected immediate results

4. Project Coordination, Collaboration, Communication and M&E
• Gender-responsive knowledge products, tools and approaches developed and shared through the FOLUR IP Global platform and other relevant value chain platforms.
• Effective M&E system established for the project
• Transboundary integrated knowledge sharing system established for the Kenyan and the Ugandan Mt. Elgon landscape

2. Promotion of sustainable food production practices and responsible value chains
• Inclusive and equitable capacity development programs implemented for smallholder farmers, cooperatives and other value chain actors to promote sustainable coffee and maize production.
• Innovative Business hubs established to promote market access and service delivery model
• Sustainable coffee standards, certification and traceability systems developed and promoted with innovative incentive mechanisms.
• Gender responsive incentive mechanisms established to promote sustainable coffee value chain development.
• Capacities of entrepreneurs/community groups strengthened on nature-based business development
• Livelihood Enterprises of the Chepkitale Ogiek Community of the Mt. Elgon Ecosystem promoted through sustainable enterprise development

3. Conservation and restoration of natural habitats
• Capacity of county and community-level institutions for conservation, restoration and rehabilitation of degraded lands and forest habitats strengthened in both degraded forest and agricultural landscapes.
• Highly degraded forest sites restored
• Highly degraded agricultural lands restored.
• Sustainable and innovative financing mechanisms identified and tested for conservation and restoration

1.Development of integrated landscape management systems
• Multi-stakeholder dialogue and CECs strengthened to harmonize and influence policies, actions and catalyse and scale-up green investments
• Capacities developed to support participatory planning and implementation of ILM
• Integrated participatory landscape management plans developed in the Mt Elgon landscape

Barriers to effective action

Unharmonized policies and legislations and limited cross-sectoral coordination at decentralized level (counties) to promote bottom-up integrated land-use planning and management

Limited resources and institutional and technical capacity within decentralized services to support local communities and organizations in integrated landscape planning and implementation

Limited technical capacity and incentives for smallholders/ cooperatives to implement sustainable climate agricultural and management practices

Complex long value chain for coffee and unstructured markets for maize, weak professionalization and organization of supply chain actors to enable inclusive access to markets.

Insufficient public and private financing for the long-term implementation of FLR

Problems and causes

Problem statement - Increasing degradation of land and water resources in the target Mt Elgon landscape, undermining biodiversity conservation and provision of ecosystem goods and services for food security and economic development
Main causes and drivers - Unsustainable agricultural and management practices, enhanced pressure due to population increase, poverty as well as local climate change impacts and outbreaks of pest and diseases are all exacerbating the situation.

Figure 17. Theory of Change

125. The main problems that the project aims to address are the increasing degradation of land and water resources in the target Mt Elgon landscape, the lack of financial and market instruments to promote sustainable practices, poor extension services and the inability to apply landscape and integrated approaches across sectors. Pressure is coming from the need to sustain the ever-increasing demand for food, water and energy (wood fuel) from a growing population against a diminishing resource base. As a result of this pressure further degradation of ecosystems, loss of globally significant biodiversity, reduced land productive capacity and livelihood resilience is taking place. The renewed interest in the coffee value chain in Kenya, and in the two project counties, threatens the integrity of this landscape and provision of ecosystem services to surrounding production areas. As such the project will focus on sustainable production of deforestation-free coffee, maize and other food crops. The lack of integrated and coordinated land use planning and the limited support across sectors has also contributed to increased land degradation. Several farmer-led cooperatives have been created but they lack the knowledge and capacity to manage themselves as well as the ecosystem resource base upon which they depend. In addition, the integrity of this landscape is threatened by unsustainable felling of trees for household fuelwood, timber, lack of economic incentives and knowledge on better farming practices and alternative livelihoods. A significant challenge is how to scale up from already existing and successful, but fragmented SLM/SFM initiatives to programmes that are fully integrated within sectoral and county development plans, including budgets, and thus institutionally and financially considered. If this challenge can be overcome the local project beneficiaries can move from small project site successes to the wider landscape with inter- sectoral planning through a shared vision for the landscape.

126. The project will undertake ecological restoration and sustainable use of ecosystem services in degraded landscapes of Trans Nzoia and Bungoma counties, supporting, in an integrated manner, biodiversity conservation and improvements in rural livelihoods. It will adopt an integrated landscape management approach which is an important framework for addressing complex yet inter-dependent environmental issues, while bringing together diverse stakeholders who share the same landscape but may have different interests. The project will use water catchment areas as the planning units for implementation. It will also use the administrative sub-county boundaries for planning purposes. The competing pressures in Mt Elgon landscape come from the need to continuously improve peoples? livelihood through economic growth against the need to conserve natural resources in the long term. These two needs are not mutually exclusive. Mt Elgon, and indeed the two project counties of Bungoma and Trans Nzoia, are biophysically divided into various catchments and sub-catchments. Their human population is distributed amongst these catchment areas where they derive their livelihoods. There is consensus that water is the common link among the population because people are the resource users in these catchments. It is therefore appropriate that the catchment is used as a planning unit for resource management. This bigger?picture perspective will require understanding (amongst stakeholders) of the interconnectedness and interdependencies of all components of the catchment and, by extension, the landscape. Integrated catchment management acknowledges the relationships between households, villages, communities, and the broader catchment/landscape and encourages community members to take ownership of their role in catchment management - as opposed to a top-down approach lead by laws and county by-laws. This approach will enable local farmers, community cooperatives and grass root organizations, county governments and other relevant

governing bodies and institutions to implement integrated catchment management activities by using their increased knowledge.

127. The main causes and drivers of this degradation are detailed in the section above and these include the following: unsustainable use of land resources, with agriculture encroachment on forests and wetlands outside and inside protected areas, illegal and excessive extraction of natural resources (timber, firewood, hunting, NTFPs), and widespread use of maladaptive farming and forestry practices, driven by population growth, poverty and inequality, and exacerbated by climate change and the recent outbreak of COVID-19.

128. **Project Objective:** The project aims to transform coffee and staple food production systems through integrated landscape management for the conservation and restoration of Mt. Elgon Ecosystem.

129. The objective will be achieved through four interlinked components: Development of integrated landscape management systems (component 1); Promotion of sustainable and inclusive coffee and maize value chains (component 2); Conservation and restoration of natural habitats (component 3); and Knowledge management, communication and M&E (component 4). This section describes the scope of the components in terms of outputs and outcomes to be achieved.

Component 1: Development of integrated landscape management (ILM) systems

Outcome 1.1: Mt. Elgon landscape managed sustainably with increased restoration for agriculture and provision of environmental services

Key targets:

- One (1) inter-county and four (4) sub-county equitable and inclusive multi-stakeholder platforms established to promote Integrated Landscape Management

- One (1) Mt Elgon Landscape Management and Investment Plan developed

- 178,880 hectares of landscape covered by inclusive ILMP (including 19,900 ha of landscapes to benefit biodiversity)

- At least two gender responsive ILM policies at county level improved/developed

130. Kenya is a leader within Africa on ILM, with 15 integrated landscape initiatives identified in a continent-wide review in 2014[17][17]. The adoption of Kenya?s new Constitution in 2010 resulted in many changes, including the devolution of many functions of the central government in multiple sectors to 47 county governments. This provided new opportunities to improve public support for ILM. Considerable challenges remain, including lack of awareness, limited participation of vulnerable stakeholders, limited coordination across sectors and stakeholders within the landscape, inadequate funding and incentives and skills to implement interventions on the ground. Planning, managing and monitoring at a landscape scale requires specific knowledge and capacities.

131. The project will build on this rich experience in Kenya and through the first component which addressed the identified barriers 1 and 2, it will set the basis to ensure that all stakeholders (public, private, research) and land users have a similar understanding of the ILM approach and capacities to actively participate in the planning and implementation processes. The capacity of county administrations to lead the development planning activities will be enhanced in order to prioritize and mainstream integrated landscape approaches in their budgeted development plans.

132. Component 1 will also provide the necessary technical assistance to improve inter-sectoral coordination as well as the development of county-level policies and/or translation of relevant national policies to the county level to enable ILM. The component will deliver targeted trainings on ILM to county officials, community institutions and grass root organizations, ensuring inclusion of women, youth, indigenous people and marginalized groups.

133. Specifically, the project will provide technical assistance for: (1) strengthening capacities of technical and administrative institutions on ILM (County government departments of Agriculture, Water & Environment, Kenya Forest Service, Water Resources Authority, KALRO and the Water Towers Coordinating body (KWTA); (2) strengthening capacities of local community groups (including women, youth and traditional leaders) to enable them to actively participate in the process; (3) strengthening/establishing multi-stakeholder platforms to ensure inclusive consultations for ILM planning and coordination at inter-county and sub-county level; (4) delivery of ILM plans (including restoration priorities, PFMPs and SCMs) to be implemented under component 2 and 3; and (5) harmonization and improvement of enabling policies.

Output 1.1.1: Multi-stakeholders dialogue and County Environment Committees strengthened to harmonize and influence policies, actions, and catalyze and scale-up green investments.

134. Multi-stakeholder dialogue will bring together institutions, groups and individuals with interests in the Mt Elgon Landscape areas to identify priorities, cooperate in the implementation of actions, monitor progress, and resolve conflicts at the landscape scale. The dialogue will also serve as the engagement platform for building alliances with the broad presence of experts from research, civil society, government, and the private sector. It will serve to identify current and emerging conservation and development knowledge, challenges and to discuss policy options. While the dialogue platform may initially be informal, the expectation is that it will evolve to become a strong landscape governance mechanism with and for the communities. Platforms will be composed of county government representatives, relevant line ministries, civil society organizations present in the area, private sector and community representatives. Decisions will be taken by consensus and democratically with no one group imposing its views. The project will initiate and help to convene interested parties to form the Platform, convoke their initial meetings, and nurture these structures to develop their capacities to continue working independently and effectively. The project will build on existing structures or coalitions of interested parties in the target areas. Both Trans Nzoia and Bungoma counties may already have an existing multi stakeholder formation that provides space for dialogue. The following activities are planned:

135. Activity 1.1.1.1: Strengthening of the existing platforms to be fully inclusive and cross-sectoral. This activity will build on existing platforms, such as the County Committees on water services, agriculture, environment and others to create a multi-stakeholder platform for the purposes of performing duties of integrated landscape planning. This multi-stakeholder platform will then be

strengthened by (i) first undertaking a gap analysis of its representation, the contribution communities, private sector and CSOs are making to the functioning of the platform. If found necessary its membership will be expanded to include marginalized groups, such as women, indigenous people and youth. For representation to expand it will be necessary to hold discussions with potential groups (e.g., Self-help groups, women groups, cooperatives and other civil society organizations present in the project landscape) to motivate their participation and to create ownership of the platform and a shared purpose; (ii) encouraging the County Governments to be the conveners and to establish a landscape working secretariat to support the platform and to coordinate stakeholder discussions, solicit for opinions and feedback and maintaining records. The secretariat will also develop plans on how to improve the dialogue and active participation of the stakeholders as well as develop rules and procedures of doing business at the platform; (iii) facilitating quarterly meetings for the platform.

136. Activity 1.1.1.2: Multi sectoral Policy dialogue for ecosystem protection and food production. The Multi Stakeholder Platform will act as a venue for policy-oriented discussions with the primary purpose of understanding, reviewing and recommending changes to relevant national or county policies so as to promote integrated landscape planning and implementation of policy interventions. The current sector policies, such as the one on land, water, finance, wildlife, agriculture and forest, environment and climate change policies may all have gaps, conflict or inadequacies in relation to the emerging needs of an integrated landscape approach. This policy dialogue may also (i) recommend enactment of new/improved county level policy such as one on forestry and protection of wetlands across the landscape (other than the gazetted wetlands) to enable implementation of the Transition Implementation Plan by county governments as proposed by the national government, (ii) prepare contextualized policy briefs to support ILM and/or sustainable food production systems, (iii) promote inter- county, and indeed, transboundary exchanges such as a ?Mt Elgon Day? aimed at creating broader awareness of the importance of the landscape and its resources. Discussions under this activity will include policy discussions for enabling progressive developments in the value chains of coffee, maize and other crops (access to markets, credit, quality seeds, extension services, value addition, etc) and will provide opportunity to discuss gender and youth inclusion issues.

Output 1.1.2: Capacity building programs implemented to support inclusive and equitable participatory development and implementation of ILM

137. This output is related to capacity building for the key stakeholders in the landscape. Enhancing the capacities of the county governments, local communities and their organizations (cooperatives, WRUA, CFA, other farmer groups) is a crucial project output because it forms the foundation upon which the sustainability of results will be built. This component will increase the organizational and financial capacities and skills of community and local civil society organizations through continuous mentoring and training. Capacity building activities will be tailored to meet the needs of the various groups and organizations involved in programme implementation. It will also be prioritized so that the intervention contributes to meeting the overall objectives at each sub catchment landscape. The project will apply a bottom up and participatory approach to determine the topics and the best tools to strengthen the capacities. NGOs present in the Mt Elgon landscape, such as Solidalidad, World Resource Institute and E4Impact would play a role in facilitating the capacity needs assessment with the support of national experts and helping to deliver the related activities, including by mentoring communities during project implementation. Although the activities for this output are listed below

more specification of activities and sub-activities for this output will be better detailed once the capacity needs assessment is done.

138. Activity 1.1.2.1: Capacity gap assessment of all relevant community based groups/stakeholders in the landscape and compilation and prioritization of capacity development needs arising from consultations with community groups This will include identification of the best means to meet the capacity development needs of diverse stakeholder groups, taking into account differences in educational levels, location in the sub-county, COVID 19 restrictions, time availability for training activities (in particular for women), language, and type of skills/knowledge to be acquired. Capacity gaps could be shared with the FOLUR Global Platform for possible support and collaborative learning.

139. Activity 1.1.2.2: Development and delivery of training packages (ToTs, community champions, Training materials, Curriculum) on ILM planning and implementation. Specific training packages will be designed to help improve on transparent and accountable governance and management of the key community organizations participating in this project e.g., CFAs, WRUAs, Ogiek community groups, cooperatives etc.

140. Activity 1.1.2.3: Development of a gender and people-with-special-needs action plan to actively contribute to the ILM planning process. This action plan will include skills development for women and youth to meaningfully participate and contribute to the ILM planning and development process. This includes reaching out to them in their platforms and explaining to them the steps of the ILMP process and then seeking their participation and inclusion of their voice in decision making.

141. Activity 1.1.2.4: Organize exchange visits with other counties that have developed an Ecosystem Management/Investment Plan with effective spatial planning for lessons to be learnt on approach/tools used

142. Activity 1.1.2.5: Support to GIS units on spatial data, information and knowledge management for Bungoma and Trans Nzoia counties. This support will provide support to the spatial planning unit of the counties to ensure that all relevant data and maps generated by the project will be utilized and useful for continued spatial planning beyond the project duration. The project will also build on the experience of the FAO Land Programme supporting counties in Kenya on GIS support.

Output 1.1.3: Integrated participatory landscape management plans developed in the Mt. Elgon landscape.

143. These plans will be the basis for managing the target catchment areas. They will also be used for making decisions by the project to award small grants under component 2 for community micro projects, including women and youth groups. These landscape plans will complement other strategies and plans existing for the same landscapes, for example, CFA?s PMFP and/or WRUA? SCMP, County government plans, etc. Whereas the plans developed by CFAs and WRUAs are very sectoral in nature an attempt will be made to harmonize their contents with the new focus of an integrated approach to landscape management. It is noted that only a few of the community groups actually have functional plans to date. The specific focus of the landscape plans is on actions that can be taken by the communities to address socio-economic and environmental challenges, increase ecosystems and communities? resilience, and generate global environmental benefits.

144. To ensure that the landscape management plan responds to the needs of the various segments of the population, including the Ogiek community, a gender-responsive approach (also see Output 1.1.2

on capacity for gender mainstreaming) will be used during its development. The Multi-stakeholder platform (Output 1.1.1) will be invited to review progress, assess challenges and emerging opportunities at least 3 times in the project lifetime. This is aimed at ensuring the continued relevance of the landscape plans. Recognizing that local institutions and communities may not have experience in landscape planning and that integrated landscape management is a new and complex approach to Mt Elgon stakeholders, the project will allocate funds to engage a qualified technical institution to provide targeted support.

145. Activity 1.1.3.1: Create an inter-county working group to guide the development of the Mt Elgon-wide overarching Ecosystem Management and investment plan. Although each county can act independently, the Mt Elgon watershed, critical sub-catchments and riverines, cuts across the political and administrative boundaries of Trans Nzoia and Bungoma, thus the need to collaborate.

146. Activity 1.1.3.2: Development of an outline of contents and guidelines to be used by the inter-county working group and other decision makers in preparation of the ILM plan. The guidelines are needed due to the diverse interests of stakeholders in the landscape. The guidelines will draw from other existing practices including the recently concluded Spatial Plan of Trans Nzoia county and will set the stage for inclusion of critical contents, such as (i) statement of management objectives, which must include the known multiple benefits from the landscape, (ii) conservation on the farms, communal areas such as rivers and hill tops, forest area - all of which contribute to improved livelihoods, protection of biodiversity, community and ecosystem resilience to climate change and others, (iii) gender equity, youth and special groups (iv) roles and responsibilities of institutions (v) communication plans and how community will be engaged.

147. Activity 1.1.3.3: Conduct socio-ecological baseline assessment and hold workshops with multi-stakeholder platform members, other interested community members and qualified individuals to discuss new information about the socio-ecological condition of the landscape (one in each county). The results of the baseline assessment will be disseminated to the landscape platform members with a view to identify key common goals and objectives at the landscape scale and priorities for action by members of the multi-stakeholder platforms that would lead to improved management of the landscape and their natural resources, as well as more resilient and sustainable livelihoods. These priorities will be endorsed by the multi-stakeholder platform and will include the means and indicators by which implementation progress will be collectively measured.

148. Activity 1.1.3.4: Conduct single species assessment of critical endemic biodiversity in the Mt. Elgon landscape and integration of conservation plans in ILM. (National Museums of Keny, University students). This activity will facilitate students and/or researchers from relevant knowledge institutions within Kenya to carry out single species assessments of critical endemic biodiversity species where the current status is unknown or is considered to be endangered/critically threatened. The assessment(s) will gather information regarding status, habitats, population trends etc. which will be used to update the IUCN red list assessment. The assessments will also be used to develop a conservation plan for the targeted species which will be integrated and implemented in the ILM plans. Species suitable for assessments include, but is not excluded to, Du Toit's Torrent Frog (*Arthroleptides dutoiti*); Barbour?s Vlei Rat (*Otomys barbouri*); Mount Elgon mole shrew (*Surdisorex schlitteri*); Mount Elgon Grass Bush-cricket (*Horatosphaga elgonis*); and, *Bothriocline auriculata*.

149. Activity 1.1.3.5: Vulnerability profiles for the four target landscapes in four sub counties will be undertaken. These profiles are useful as a base of evidence for community dialogue and action in their localities. At the same time these profiles will help to direct and ensure resources are spent where they can have the most impact.

150. Activity 1.1.3.6: Development of Mt Elgon Ecosystem Management Plan and sub-county ILM Plans (4). Using the information and analyses generated through the activities above and by consultations with stakeholders at the multi stakeholder platform, development of sub county ILM plans for Bungoma and Trans Nzoia counties will be undertaken. These ILM plans will include the development of broader Mt Elgon ecosystem management and investment plan which will provide the guiding framework for the development of the sustainable land-use plans for each of the four targeted sub-counties including the coffee and maize landscapes. Once completed and approved by stakeholders, the ILMPs will be presented to the County Assemblies for endorsement.

151. Activity 1.1.3.7: Disseminate widely the information on the new integrated landscape management plans.

As part of awareness creation, the project will support the development of simplified (e.g, in form of simple narrative, pictorial/visuals, community barazas, storytelling, posters, drama/theatre etc.) information on the new integrated landscape plans to ensure all actors in the landscape have access to the information and scope.

Activity 1.1.3.8: Support to selected community-based natural resource management groups (WRUAs, CFAs) to harmonize/prepare and implement sustainable management plans

152. The data and information gathered and made available for the development of the Ecosystem Management Plan and the sub-county ILMPs, the project will provide support to selected community-based natural resource management groups to revise/develop sustainable management plans for their respective geographic coverage in line with national policies and guidance. This activity will be supported by specific technical institutions such as KFS, KWS and WRA and technical experts. Specific attention will be given to promote biodiversity conservation through enhanced protection of hotspots and needed restoration efforts.

Activity 1.1.3.9: Support the development and implementation of Chepkitale community land management plan

153. This activity will support the Ogiek community in Chepkitale to develop and implement a management plan for the Chepkitale Ogiek community land (reserve) on top of Mt. Elgon. Part of this activity will be to conduct a mapping of (Ogiek) community-based organizations/groups engaged in natural resource management in Chepkitale; support the continuation of spatial natural resource mapping of the Chepkitale community land; support the identified CBOs to revise/develop an integrated management plan for the Chepkitale community land. The activity will also provide organizational capacity support to the identified community institutions to implement the management plan and integrate traditional knowledge in the management plan (based on products developed under component 4)

Component 2: Promoting sustainable and inclusive coffee and maize value chains

Outcome 2.1: Improved efficiency and sustainability of inclusive and equitable coffee and maize production systems.

Key targets:

- 40,000 smallholder farmers (at least 30 % women) benefited from training and access to services to support sustainable coffee and maize production and marketing

- 26 Coffee cooperatives have benefited from training on GMP

- at least 1,000 coffee plantations in the process of certification

- 30,000 hectares of land under sustainable practices (GEF core indicator 4)

- at least 30% increase in coffee and maize yield per tree/hectare for smallholders

- 40 entrepreneurs/community groups (50% women, youth, Ogiek community) supported through small grants to develop Nature-based enterprises for economic empowerment and livelihood diversification

- inclusive County Coffee platforms (2) established and operational

154. Component 2 is aiming to transform the coffee and maize value chains in Bungoma and Trans Nzoia counties, to support them to become more inclusive, sustainable and resilient to the impacts of climate change. These interventions are aligned to the NARIGP and National Value chain programmes by the National Government.   The production and processing of these crops fit within the larger landscape and as such falls within the ILM plans developed under component 1. The component will focus on the following aspects: (1) capacity development of value chain actors on Good Agricultural Practices (GAP) ensuring the provision of ecosystem goods and services, Good Manufacturing Practices (GMP) and managerial skills to ensure efficient and sustainable value chain; (2) improving access to information, services, market and finance; (3) support certification and traceability. In addition, the departments of gender and youth in both counties will be key in identifying registered women and youth groups, as there has been successful experience in supporting women and youth to develop SMEs.

Output 2.1.1: Capacity development programs implemented for smallholder farmers, cooperatives and other value chain actors to promote Climate-Smart coffee and maize production

155. This output is intended to improve smallholder farmers and SMEs? access to knowledge, information and innovations in order to accelerate landscape-wide adoption of sustainable and climate-smart coffee and maize production technologies, innovative practices and related services (such as improved varieties, shade-trees, N-fixing trees, access to inputs, climate information,...). The main activities include:

Activity 2.1.1.1: Inclusive farmer and cooperative mobilization

156. Bungoma and Trans Nzoia County have 19 and 7 Coffee Cooperatives respectively with a total of 35,746 farmers. These cooperatives will be the entry point for site and farmer selection in the respective counties. Thus, the maize farmers to benefit from the project shall comprise those members of coffee cooperatives who grow maize as well as other maize farmers in the target area. The target

farmers will be those who own 1 to 5 acres. The identification of the farmers will be facilitated by the County ward extension staff. Each sub-county will recruit a minimum of 35 new groups annually with an average membership of 30 farmers distributed across the wards. These groups will form the farmer field schools. The schools last an entire crop cycle. The mobilization process will aim at having at least 30% of the farmers to comprise of youth and women in order to ensure inclusivity. Thus, a total of 16,800 smallholders farming maize on about 30,000 hectares will be mobilized and reached directly.

Activity 2.1.1.2: CSA and GAP Curriculum development for coffee and maize FFS.

157. Climate Smart agriculture (CSA) coupled with relevant topics in Good Agricultural Practices (GAP) will be introduced through a farmer field school curriculum which will be developed taking into consideration existing training manuals (such as the Kenya Coffee Sustainability Manual. A needs assessment will be carried out before the development of the curriculum. The assessment will be informed by existing annual reviews carried out by the county agriculture staff and FGDs with leadership of target category of groups in the various value chains in each sub-county. The curriculum will introduce and embrace the CSA pathway towards development and food security built on three principles/pillars which are; Increasing productivity and income, enhancing resilience or adaptation of livelihood and ecosystems as well as reducing and removing greenhouse gas emission from the atmosphere. CSA technologies are location and situation specific and therefore in this regard, the technologies to be introduced through the curriculum will include:

i)   *Continuous minimum mechanical soil disturbance*: The Conservation Agriculture (CA) tillers and planters will be introduced to demonstrate minimum mechanical soil disturbance through the FFS. Each FFS will have a manual CA tiller and planter for demonstration and subsequent use on their farms on hire basis from the group.

ii)   *Soil cover and Diversification of crop species*: The maize season is from March to October. The project will promote growing of beans, Irish potatoes and traditional vegetables in the target project area. These will provide soil cover and enhance diversification.

iii)   *Good Agricultural Practices*: Besides the aforementioned CSA practices, the other GAP topics to be introduced will include but not limited to use of certified seeds, recommended application of pesticides, herbicides and fertilizer based on soil testing results and recommendations. For coffee canopy management, timing of harvesting and post-harvest handling will also be covered

158. Maize is an annual crop while coffee is a perennial, hence a few of the CSA and GAPs practices shall differ. Thus, each crop will have a 5 days? workshop with the County ward officers, KALRO, CRI and FAO to put FFS training manuals together. The FAO Climate-Smart Agriculture Training Manual for Agricultural Extension Agents in Kenya (2018) will guide in putting the curriculum together. FFS are also known to come-up with indigenous technology solutions that could also be identified during the course of the training; and these will be adopted accordingly where applicable.

Activity 2.1.1.3: Training of Community Based Facilitators and Ward Extension officers

159. The ongoing Agriculture programmes at the County Governments of Trans Nzoia and Bungoma are using Community Based Facilitators (CBFs) to carry out the training at the FFS. Therefore, once the curriculum is developed, 15 CBFs in every Sub- County and 26 coffee CBFs across the two counties will be trained on the content, linked to the target groups with clear schedules, timelines and

deliverables. A Diploma in Agriculture will be the recommended CBF?s minimum education level and they will be supervised by the County ward agriculture officers who will also take part in the training.

Activity 2.1.1.4: Organization of Farmer Field Schools Trainings

160. The knowledge and skills on the desirable CSA technologies and GAP will be impacted amongst the smallholder farmers through Farmer field schools (FFS). FFS often lasts a crop season, and it takes an average of 9 months from land preparation, planting to harvest of maize in the target sub-counties. Thus each year, 35 new FFS will be recruited in each of the 4 sub-county for the 4 years, making it a total of 560 maize FFS in the entire project period. Each FFS will have at least 30 smallholder maize farmers distributed across the wards and 52 coffee FFS (2 at each of the cooperatives). The coffee cooperatives will also have 2 new FFS annually, hence a total of 208 FFS during the project. Subsequently, FFS will reach 23,040 farmers directly. The FFS learnings will take place at a demo site that will be supported with inputs and relevant tools to actualize the learning that will be replicated on the individual smallholder farms. Each FFS will have training every fortnight spread over 9 months (from land preparation to harvest). An additional 5,000 farmers in each of the 4 sub-counties will be reached through other G-hub and Cooperative services (Activity 2.1.2.4, Activity 2.1.2.5 and Activity 2.1.2.6). Hence collectively reaching out to 43,040 farmers. The FFS will be facilitated by the CBFs, who shall be given technical backstopping with the County Government Agriculture extension officers based at the ward and sub-county level offices. Each group will be supported with demonstration materials / inputs worth USD 200.

Activity 2.1.1.5: Setting up nurseries to promote Agroforestry and disease resistant coffee varieties

161. To actualize this, the project will support the establishment of 20 nurseries; 5 in each of the sub-counties. These nurseries will be established in or close to the coffee factories. They will all be managed by youth groups. Thus 20 youth groups each with an average of 10 members will be trained on Business planning and Entrepreneurship. The target production from each of the nurseries will be 10,000 seedlings annually of fruit, forest, fodder and for disease resistant coffee varieties.

162. These seedlings will be introduced and availed through FFS. Currently Gliricidia sepium is being promoted by the county Government of Trans Nzoia. It is a fast-growing shrub and establishes well on acidic, degraded and infertile soils. It provides households with both firewood (including charcoal) and fodder for livestock and poultry. The fodder is rich in nitrogen. Others are Agroforestry seedlings to be promoted include macadamia, grevilia and sesbania. Specific attention will also be given to trees/shrubs that will attract pollinators to the farm.

163. The nurseries will raise Ruiru 11 and Batian coffee varieties seedlings. They are resistant to both CBD and leaf rust and therefore can be grown with minimum use of chemicals. This makes them good candidates for certification under the sustainability programs which emphasize on environmental and ecological conservation.

164. The youth and the relevant county staff will be trained to manage the nurseries. The trained nursery managers/youth will be equipped with the necessary tools and the nurseries will be licensed to operate as a source of seedlings and income from the sale of the seedlings. Having nurseries nearby will increase availability of the seedlings and therefore increase adoption of the disease varieties. CRI will play a key role in training and helping establish the nurseries as well as in supplying the seeds. The county government will also play a key role in subsidizing the seeds and seedlings as well as providing

the advisory services. The FFS members will access subsidized agroforestry and coffee seedlings in the first year of the project in order to encourage uptake.

Activity 2.1.1.6: Support establishment of clonal gardens.

165. Clonal gardens will act as sources of the grafting material to be used in converting the KS and SL varieties to Ruiru 11 and Batian through top working. Cooperative societies will identify farms in which these clonal gardens will be established, building on the experience of Solidaridad. The project will provide the seedlings and technical support while the farmers will provide the labour for establishing the clonal gardens. CRI, which has expertise in this, will spearhead this activity. Activity 2.1.1.5 and 2.1.1.6 will address the barrier of inadequate supply of disease resistant varieties leading to increased acreage under these varieties. With these varieties, it will be possible to get certification under the sustainability programs. Adoption of these varieties will increase production, reduce cost of production as well as reduce use of chemicals and therefore contribute to environmental and biodiversity conservation. Seedling nurseries increase farmers? access to improved planting materials and provide conduit for disseminating research findings to end users. Grafting services allow farmers to upgrade production with improved varieties with minimal switching costs of uprooting trees and eliminating waiting time while new trees mature.

Activity 2.1.1.7: Quarterly Maize Value chain players? meetings

166. Trans Nzoia County has a Maize value chain platform that was set up through the ASDSP programme and involves all the value chain actors. It has developed the strategic value chain action plan for the county and meets periodically to address emerging issues in the value chain. Its presence enabled the county to swiftly coordinate and take appropriate measures to effectively address the fall armyworm attack on the maize crop. The project will build on this platform to sustain coordination and scale up to Bungoma County. The platforms will hold two meetings annually at the county level.

Output 2.1.2: Innovative Business hubs established to promote market access and service delivery to smallholder farmers.

167. A Business Hub is a service delivery model (see figure 18 below) aimed at addressing challenges faced by smallholder farmers. It is a one-stop shop for all farmer needs that is aimed at transforming smallholder farmer groups into sustainable business entities that profitably trade in agriculture produce through structured engagements. These include: contracts with reliable off-takers, joint access to quality and affordable inputs from suppliers, access to financial services, machinery and equipment leasing, capacity building and provision of technical advisories, access to timely and reliable market information among other services. EAGC will partner in setting up the Business hub ? dubbed the Grain Hub.

Figure 18. Descriptive overview of G-Hub (EAGC, 2020)

168. Under this output, one maize cooperative in each of the 4 sub-counties will be transformed into a G-hub. The Coffee Cooperative would double up as a G -hub where a strong maize cooperative does not exist in a specific sub-county. The G-hubs will register a total of 12,000 farmers and support them in accessing agriculture input and services including fertilizer, tarpaulins, hermetic bags, soil testing services, market and weather information, market linkages, and finance. The G-hubs will collectively consolidate and market 35,000 MTs of maize annually.

Activity 2.1.2.1: Set-up Village Aggregation Centers (VACs)

169. The groups participating in FFS farmers will transform into the aggregation centers during the harvesting period in order; to provide an avenue for market linkages. The project will build on East Africa Grain Council?s (EAGC) experience in setting up and supporting 350 VACs in Eastern Africa to strengthen the farmer groups in the FFS to manage the VACs. EAGC has a curriculum that has been improved over time to guide this process. Thus EAGC will reach out to the FFS and sell the idea of them coming together to form VACs, support them to get formally registered with a constitution and bylaws and processing registration certificate as a farmer group, assist them to identify and lease a premises where they can aggregate their produce, train them on good handling of the commodity after harvest so as not to compromise on quality and minimize post-harvest losses, mapping the VACs to G-HuBs, training them on how to run the G-HuBs

170. The curriculum to be applied focuses on post-harvest management, specifically good grain storage practices including appropriate use of equipment such as, moisture meter, tarpaulin, maize threshers, flat bed scale, hermetic storage bags, and pallets. VACs will be set up at the ward level. All the village Aggregation Centers (VACs) in a sub-county will be linked to one maize cooperative in the sub-county. The cooperative will be supported to transform into a Grain business hub (G-Hub) that will enable it to provide appropriate services to the farmers and linkages to the private sector including input suppliers and buyers. EAGC currently operates 71 G-hubs in Eastern Africa providing members a structured source of grain supply leading to improved efficiency and reduced transaction costs. In 2020, EAGC developed 16 business partnerships between G-hubs and grain buyers in Kenya benefiting 15,000 farmers. Besides markets, the G-hubs are designed to provide other services including fertilizer, tarpaulins and hermetic bags.

Activity 2.1.2.2: Governance and business management training:

171. The G-hub and the Coffee cooperatives leadership will be taken through governance and business management training that shall culminate in an updated business plan providing direction on recruitment of more members and sustainability of hub and cooperative operations. Further, training the Farmer Groups to develop business plans to guide their operations, coaching and mentoring them using the EAGC established Technical Advisory and Coaching methodology, curriculum and teams of experienced Field Officers and Associates. Each G-hub shall target to reach out to 5,000 farmers while the total membership of the coffee cooperatives is 35,746.

Activity 2.1.2.3: Certification of the warehouses and linkage to buyers.

172. Certification of the G-HuBs / Warehouses (4 hubs and 14 VACs) will be done using the EAGC inspection and certification scheme and criteria. This is reviewed annually. It requires the EAGC inspectors visiting the premises to inspect the premises, equipment and personnel as per criteria and issuing an inspection report. Prior to the inspection, the Warehouses require training on the process and procedure so they understand and can do an initial self-assessment in preparation for the inspectors visit. A warehouse that passes the inspection criteria recommended for certification and execution of an agreement to operate the certified warehouse as per the certification regulations which also require periodic supervision and monitoring.

173. Therefore, the identified hubs will undergo training using the EAGC G-Hub capacity building modules to enable it to aggregate and trade in grain. This will include: certification of the warehouses, crafting Buyer-seller negotiation/ Trade contracts and Trading on EAGC G-Soko platform that links grain producers / sellers and buyers. Where the Cooperative does not have an existing warehouse, they can lease or get into an agreement with the county governments to make good use of their warehouses. With the planned outreach to 20,000 farmers across the 4 sub-counties with average acreage of 2.5 at a productivity of 1.5 MTs per acre will yield 75,000 MTs. Thus, after allocating 20% to household consumption, collectively the hubs shall facilitate market access of 60,000 MT through the certified warehouses annually.

Activity 2.1.2.4: Facilitate inclusive and equitable access to farm inputs and service providers.

174. The County government, in collaboration with the G-Hubs and coffee cooperatives, will organize annual open field days. The County Government will mobilize additional resources from other development partners and private sector to actualize this activity. They will mobilize all the value chain

actors in the respective value chains to take part in these events. The service providers include input suppliers for quality seeds, fertilizer and herbicides and service providers promoting technologies such as aflatoxin test kits, portable solar, drying systems (coverable plastic drying surfaces), hermetic storage bags / technologies as well as insurance service providers etc. Others are digital technology providers of farming services e.g., Safaricom?s Digi farm, M-Shamba etc who will be important in supporting market access for the alternative crop i.e. traditional vegetables and potatoes generally grown by women.

175. The G-Hubs and coffee cooperatives will explore and create linkages with these input suppliers thereafter sourcing in bulk the variety of the inputs and services identified and preferred by both male and female farmers during the field days. The discounts from the economies of scale gained through bulk purchasing will be passed on to the farmers. These services will reach an additional 5,000 farmers per G-hub and Cooperatives in the respective sub- counties; this is beyond those who benefited from the FFS activities.

Activity 2.1.2.5: Facilitating access to soil testing services for farms owned by both male and female farmers.

176. The G-Hub will also support both male and female farmers to access soil testing services. It will organize demos with various soil testing service providers at the FFS demo sites, and thereafter develop a list of farmers keen for the soil testing services every year and negotiate with service providers on better terms, e.g. in 2019-2020 the County Government of Bungoma carried out soil test for Kshs 800 per sample, however it reduces to Kshs 500 per farmer if it?s done for a group. The project will share at 50% the cost of the service for at least 1,000 farmers per sub-county per year to enhance uptake of the service.

Activity 2.1.2.6: Facilitating access to information.

177. The G-hub and Coffee cooperatives will have sex disaggregated databases of all its members and thus will provide information on both supply and demand on the crops. The maize data will be captured through G-Soko, an EAGC market linkage platform. In addition, it will also provide relevant extension information including threats on emerging disease and pests such as locusts, maize stalk borer, fall army worms etc. through bulk SMSs and county e-extension platforms where they exist, including through platforms that reach women farmers. Coffee digitalization which is on-going) what is remaining is actual registration of farmers in the System.

Output 2.1.3: Sustainable coffee standards, certification and traceability systems developed and promoted with innovative incentive mechanisms.

178. Voluntary Sustainability Standards (VSS) in the coffee sector are key elements of corporate sustainability and Corporate Social Responsibility (CSR) strategies across the coffee industry. VSS have a long history and promote better conditions in international trade and production. Although content and scope vary, they all aim to offer guidelines for producing, selling and purchasing coffee identified as ?sustainable?, ?responsible?, ?ethical?, etc. They can differ on a great number of characteristics, such as standard criteria, audit methodologies and consumer marketing. The main sustainable coffee production standards present in the market are: 4C, Fairtrade, organic, Rainforest Alliance & UTZ, and the private sector standards of Starbucks? C.A.F.E. Practices and Nespresso?s AAA Guidelines. The merger of Rainforest Alliance and UTZ led to the development of a new

Sustainable Agriculture standard in 2020, which focuses more on continuous improvement at farm level, in combination with a data driven and contextualized approach (Rainforest Alliance, 2020). The market credibility of VSS relies heavily on ?the assumption that training of farmers in Good Agricultural Practices (GAPs) leads to higher yields and better quality products (outputs), which results in increased productivity and profitability (outcomes), ultimately improving incomes and livelihoods for certified farmers (impact)? (Bitzer, 2019). In several cases, the adoption of sustainability standards leads to an increase of coffee price levels, which is also the primary incentive for farmers to enrol in certification (Oya, 2018; Tayleur, 2018). For locally traded coffee we have the Kenya Coffee Standards which are developed by Kenya Bureau of Standards (KEBS). Currently, the Kenyan coffee farmers participate in five main coffee certification programs. These include;

-        Fairtrade in which producers receive Fairtrade Minimum Price for coffee; farmers must use 25%+ Fairtrade Premium to enhance productivity & quality

-        UTZ

-        4Cs which is used by 415,000 farmers and 1.1 million workers in 24 producing countries worldwide

-        Nespresso & Rainforest Alliance partnered in 2003 to develop Nespresso AAA Sustainable Quality Program

-        Starbuck?s Coffee & Farmer Equity (CAFE) Practices which measures 200+ social, economic & environmental indicators to ensure sustainable sourcing

179. Coffee from the area loses identity immediately it is sold at the auction. Coffee from different farmers is processed together at the factory level. It is then sent to the dry mills in lots. After milling the coffee is offered in the Nairobi Coffee Exchange (NCE). The coffee is sent to the NCE in lots and labelled according to grades and the name of the cooperative society or the farmer. Once the dealers buy the coffee, from different sources, they put it together and so the identity in terms of the cooperative society or farmer disappears. This system also does not facilitate traceability and there it is not possible to pinpoint the source of a problem if it occurs.

Activity 2.1.3.1: Facilitate branding and certification.

180. Through the 26 cooperative societies, the farmers will be trained on brand establishment and promotion. Farmers will be supported to come up with brands and labels. Stakeholder meetings will be convened to identify the best practices. Training on standards and documentation towards certification eg, Organic, Fairtrade, Rainforest Alliance etc will also be undertaken. This will include linking the cooperative societies to certifying bodies, supporting the documentation, training the farmers on compliance, financing the audits and paying for the certificates. Both Solidaridad and Rainforest Alliance are supporting cooperatives in Bungoma and Mt Kenya to get organic/RA certification and they will play a key role in rolling out this intervention.

Activity 2.1.3.2: Digitalization of operations in the coffee value chain

181. To enhance transparency in the management of the coffee at the factory level, the project will introduce digitalization of the weighing, receipt, marketing and payment systems. This will involve supply with digital weighing scales, Point of Sale (POS) and computers to the cooperative societies.

Training on the digitization system of the 10 county staff and at least half of the cooperatives will also be undertaken. Finally, a system for capturing the information and linking all the stakeholders in the coffee value chain will be developed. The State Department for Cooperatives is currently supplying selected cooperatives with the digitization equipment. The project will complement these efforts by supporting the registration of coffee farmers in the 26 cooperatives. E4Impact is already working in Bungoma county promoting digitalization and they will play a key role in rolling out the digitalization intervention.

Output 2.1.4: Gender-responsive incentive mechanisms established to promote sustainable coffee value chain development beyond landscape level. (in collaboration with private sector).

182. This output will be delivered through activities that strengthen market demand, create an enabling environment. Such activities will include promotional campaigns to promote local consumption of coffee, linking cooperative societies to buyers directly and establishing an award system for good quality coffee. Gender responsive incentives to encourage coffee branding through the Geographical Indication (GI) for single-origin coffee to improve value addition along the supply chain. Coffee branding according to the zones of origin widens the market through segmentation. The farmers could use this incentive and strategically position themselves, through partnership, to reduce price spread between producer and retail level. This may be achieved through joint ventures in investment that allows local roasting and packaging of the product before exportation. Further, the partnership can take the form of contract farming. Contract farming has ancillary benefits in the form of credit arrangement for critical inputs and may also embrace insurance schemes. For such developments to be useful to farmers, the project will need to play a role in mediating and establishing the ground rules for these arrangements. The project will also pursue aggressive marketing of coffee from the project area and encourage foreign investors to engage in contract partnership with both male and female coffee farmers in collaboration with ongoing programmes from Rainforest Alliance and E4impact amongst others.

Activity 2.1.4.1: Increase local value addition.

183. This output will be delivered through activities that strengthen market demand, create an enabling environment. Such activities will include training on value addition which includes roasting, grinding, packaging and branding.

 Activity 2.1.4.2: Promote direct marketing of coffee.

184. Directly link cooperative societies to buyers and establish an award system for good quality coffee. The project will organize 20 B2B meetings between the farmers and roasters, exporters and importers. A target of 10,000 Farmers will also be trained on marketing including market information sourcing and utilization. A target of 10 contractual arrangements between cooperatives and buyers will also be established to ensure market access at profitable prices. The project will target to increase the coffee going through the direct channel from the current 10% to 30% within the project lifespan.

Activity 2.1.4.3: Promote local consumption.

185. In 2017/2018 domestic coffee consumption was 1,577Mt which was about 0.7 percent of the total sales. In 2017/2018 domestic coffee consumption was 1,577Mt which was about 0.7 percent of the total sales. Local consumption will be promoted through county coffee fairs (2 per cooperative society every year), promotional campaigns to promote local consumption of coffee. These county fairs will

also be sponsored by input suppliers, marketers, millers, county governments, NGOs and will bring different actors together to showcase services on offer.

Activity 2.1.4.4: Establish a reward system for good coffee production practices

186. In the second year of the project implementation, the project will start a competition system to reward the value chain actors with the best practices in terms of production, processing, value addition and marketing of coffee. The activities will include identifying the participants by calling for expression of interest, conducting judging of the value chain actors based on an agreed set criteria and compiling the list of the top three in each category. The competition will be annual and will cover the whole project area. Awards will be announced and given during the international coffee day. This will heavily borrow from what the state department for Crops and Agricultural Research (SDC&AR) does on an annual basis. This activity could be spearheaded by the State Department for Cooperatives (SDC) and SDC&AR in collaboration with the county departments.

Output 2.1.5. Capacities of entrepreneurs/community groups strengthened on nature-based business development.

187. This output will provide support to community groups (women associations, youth groups, producer organizations,) to enhance the skills to develop sustainable and bankable business plans which have a positive impact on the environment. It will build on the Restoration Factory which is being implemented in collaboration with Bridge for Billions under the GEF-6 TRI programme, to develop their business ideas to be able to access possible finance. It will also build on the guide developed by FAO to develop bankable businesses in the forestry sector[18][18].

Activity 2.1.5.1: Build competitiveness capacity of nature-based livelihoods enterprises

188. The project will launch a call for 7 farmer groups/start-up entrepreneurs in nature-based livelihood enterprises in each sub-county to be trained in business planning and entrepreneurship skills through incubator approach. A strong focus would be on regenerative and restoration potential of the enterprise as well as focus on youth, women.

Activity 2.1.5.2: Support nature-based livelihoods enterprises with small grants

189. From the above 28 identified groups/cooperatives (5 from each sub-county), the project will provide small grants to the 20 most promising business ideas with the largest environmental and socio-economic impact. Criteria for selection will also include potential of scaling-up and access to markets (national/international). Specific attention will be given by the project to promote gender and youth-driven projects.

Output 2.1.6. Livelihood Enterprises of the Chepkitale Ogiek Community of the Mt. Elgon Ecosystem promoted through sustainable enterprise development.

190. This output will provide support, both technical as through small grants, to identify and enhance the local livelihood enterprises within the Ogiek community. These livelihoods will be mapped and agreed upon, together with the Ogiek community, during project inception and might include beekeeping, dairy farming, fodder production, small livestock, bamboo basketry and basketry products

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and small livestock amongst others. The determining factor will be the sustainability (environmental and economic) of the livelihood and the positive impact it will create on the landscape.

Activity 2.1.6.1: Mapping of viable livelihood enterprises

191. The project will build on the local knowledge of the Ogiek community and will undertake a participatory mapping of viable livelihood enterprises and associated entrepreneurs/community groups within the Ogiek community and assess their capacity to develop business plans. Groups may be involved in value chains such as beekeeping, dairy, livestock, chicken, bamboo, eco-tourism basketry among others.

Activity 2.1.6.2: Building competitive capacity of nature-based livelihood enterprises

192. Following the approach used under activity 2.1.5.1 and based on the mapping exercise under activity 2.1.6.1, the project will support capacity building of identified entrepreneurs/Ogiek community groups to strengthen the business case of the enterprise in order to be able to attract potential finance/investment and enhance sustainability.

Activity 2.1.6.3: Small-grant support to selected Ogiek youth, women and men groups for the development of these nature-based livelihood enterprises

193. From the enterprise groups/cooperatives mapped under activity 2.1.6.1. and supported under activity 2.1.6.2, The project will provide small grants to the most promising business ideas with the largest environmental, socio-economic and cultural (Ogiek) impact. Criteria for selection will also include potential of scaling-up and access to markets (Local/National/International). Specific attention will be given by the project to promote gender and youth-driven projects within the Ogiek Community. The project will provide small grants to most promising business ideas (max 10,000 USD each).

Activity 2.1.6.4: Farmer Field School support to Ogiek community

194. The traditional livelihood practices and environmental condictions in the Chepkitale community land excludes most Ogiek in the area from participating in the Coffee and Maize value chains. Therefore, the project will undertake an assessment of the current agricultural practices and commodities within the Chepkitale Ogiek Community and the will set-up Farmer Field Schools to strengthen Ogiek farmers?s capacity to adopt sustainable and climate-smart agronomic practices to increase productivity, income, food security and to reduce environmental impact. Likely focuses of the farmer field schools will be the livestock value chain (dairy, sheep farming, chicken small-scale livestock etc).

Component 3: Conservation and restoration of natural habitats

Outcome 3.1: Increased Mt Elgon landscape area under conservation and restoration

Key targets:

- 7,000 hectares of degraded forest land under restoration (GEF core indicator 3)

- 3,000 hectares of degraded farmland under restoration

- 19,900 hectares of landscapes under improved management to benefit biodiversity (wetlands and conservation areas)

- 8,201,468 million tons of CO2 sequestered (GEF core indicator 6)

- At least 10,000 men and women trained and engaged in restoration planning, implementation and monitoring

195. This third component will support Bungoma and Trans Nzoia counties in collaboration with the technical institutions (KFS, KALRO) to restore degraded lands in the buffer zone of the protected area and on degraded production lands. The project will build on the restoration priority zones and options identified through the National Restoration Opportunities Assessment Methodology (ROAM) carried out in 2016. It will also build on past and ongoing work from 2019. While being guided by the ROAM report the project will also use the priorities identified via the ILM plans (both sub county plans and the overall Mt Elgon ILM framework) developed in component 1. Other on-going restoration initiatives, such as reforestation programmes of KFS and riverine protection work of WRUAs will be considered. Under the first component the biodiversity hotspots and priority actions were identified and under this outcome, the project will support the improved management of 19,900 hectares of biodiversity important landscapes under the SCMs developed by the WRUAs. Activities will include protection of springs and riverine areas, promotion of pollinator-positive trees and shrubs along the fields.

196. The work of this component will complement the national initiatives of attaining 10% forest cover by 2030 as well as Kenya?s commitment to restore 5.1 M hectares under the Bonn Challenge. The Seed Centre of KEFRI will be a source of quality tree seeds for the provenances that are appropriate for the restoration sites in Mt Elgon. Selection of diverse and indigenous species will be prioritized to ensure strengthening of biodiversity values at the landscape. Other local initiatives for acquiring quality seedlings such as collecting wildlings from local areas, will be explored. KFS in partnership with the county governments will support implementation of this component through provision of advice in seed selection, training in the establishment of tree and fruit nurseries, supervision of restoration activities in agreed priority restoration sites ? identified through the sub county ILM plans and ROAM activity.

197. Component 3 will focus on: (1) Building capacity and implementing the sub county ILM plans as well as monitoring restoration activities on the ground (2) developing sustainable financing mechanisms for FLR.

Output 3.1.1: Capacity of county and community-level institutions for conservation, restoration and rehabilitation of degraded lands and habitats strengthened in both degraded forest and agricultural landscapes

198. Incremental steps will be taken by the project to expose smallholder farmers to agro-ecological production best practices and principles and determine which value chain alongside coffee and maize may be implemented in their specific lands. The investment in this output will help local farmers to meet the incremental cost of changing or improving on their production methods (Please see also Output 1.1.1 & 1.1.2) which may involve respecting riparian zones and wetlands for conservation. Capacity will be acquired through learning- by-doing methods among other approaches. For example, good rehabilitation practices will be identified and implemented on a case-by-case basis, and they may involve intercropping for nitrogen fixation, crop rotation, agro-forestry, planting of shade crops and erosion protection, organic fertilization, and reduced tillage.

199. The project has identified community organizations, such as CFAs, WRUAs and farmer groups as well as the Ogiek community as key to achieving landscape restoration. There is evidence that these community organizations are an effective tool in the Mt Elgon area and other parts of the country for the protection of water sources, wetlands, control of grazing rights in the forest and other forms of resource co-management. Consultations indicated that these community organizations have also helped to improve social cohesion, provided an avenue for conflict resolution among and between communities, and to advocate for the delivery of extension services at the local level. These community organizations operating in the target landscapes will be represented in the multi-stakeholder platforms (Outcome 1) and will be supported through sustainable livelihood grants (Outcome 3) and other capacity development activities in Component 2. Activities under Outputs 3.1.1 will help establish and strengthen various types of community groups, including their ability to monitor and assess the results of landscape restoration efforts as well as biodiversity conservation measures.

Activity 3.1.1.1: Strengthening governance of community-based organizations and mobilizing support for restoration plan implementation.

200. This activity will benefit from the communication strategy to be developed by the project and which will initiate information sharing within the landscape actors. For example, limited information is available on the extent of land degradation to the counties, their policy makers and local farmers. This basic information on land degradation is required to inform priorities and interventions. This activity will: (i) explore the opportunity to establish an association of WRUAs and CFAs in the Mt Elgon landscape as well as forming CFA/WRUA joint implementation committee on landscape issues and ensure not less than 30% women and youth inclusion, (ii) undertake capacity needs assessment - a participatory SWOT analysis with all WRUAs and CFAs in the target catchment landscapes - identifying critical capacity development needs and formulating a plan to address these capacity weaknesses via training, exchanges, mentoring or other means (also see Output 1.1.1 and activity 1.1.3.9), (iii) review, update & integrate and harmonize activities of WRUAs and CFAs with the best practices in integrated landscape management.

Activity 3.1.1.2: Support to training of community scouts and tour guides and capacity development of traditional community governing institutions

201. This activity will support the capacity development of the existing 5 Ogiek Community Scouts in the Chepkitale community land and training of an additional 10 scouts in best practices in community-based landscape conservation/protection and application of (Ogiek) traditional knowledge in the same (knowledge products developed under Activity 4.1.1.4 - Activity 4.1.1.6). Under this activity, the project will also train the existing and new Ogiek Community Scouts in Eco-Tourism tour guiding and narration of traditional knowledge to provide alternative income to the community scouts (who generally volunteer as scouts).

202. Activity 3.1.1.3. Identify, map and ground truth degraded water catchment areas, including 3,000 ha of degraded farmland and 100 ha of wetlands, within the combined areas of operations of the CFAs, WRUAs and Ogiek community. The ROAM results indicate broader areas within the Mt Elgon ecosystem with opportunities for restoration as well as biodiversity/conservation priority zones. It will be important for community members to walk through specific areas of degradation (ground truthing) within their jurisdictions and discuss possible restoration interventions.

Output 3.1.2: Highly degraded forest sites restored and sustainably managed.

203. Following the devolvement of governance in Kenya (Constitution 2010) the KFS, in consultation with county governments in the project area, prepared a Forestry Transition Implementation Plan (TIP). The signed TIP enables the county government to undertake forestry related activities some of which were previously only to be undertaken by the national government. Although this plan has been signed off by the two county governments its operationalization has been delayed by lack of capacity at the county. This output will assist the two county governments to prepare the appropriate county level policy instruments to enable implementation of the TIP. By enabling the county the project also strengthens the local capacity and ownership of restoration leadership.

204. It is also important that selected CFAs operating in the upper Mt Elgon zones of Edebbes sub county, Saboati sub county (Trans Nzoia County), Mt Elgon sub county and Cheptais sub county (Bungoma County) are strengthened (output 3.1.1). CFA areas serve as buffer zones for agriculture and are reported as having one of the highest levels of degradation. There are also a number of water user associations in the same zone but they are not coordinated with the operations of the forest associations. These associations will be supported by the project in collaboration with the county government and KFS to coordinate their operations and to undertake restoration of degraded sites by planting native vegetation species, assisting natural regeneration, controlling grazing and equitable utilization of forest resources. The participating CFAs and WRUAs will be assisted to implement key conservation/biodiversity actions of their SCMPs and FMAs developed/revised under component 1.

205. Activity 3.1.2.1: Support Trans Nzoia and Bungoma counties to operationalize their forestry Transition Implementation Plan (TIP) which will provide the basis for KFS support to ensure both counties have the necessary capacity to provide forestry related support to the local stakeholders.

Activity 3.1.2.2: Establishment of community tree nurseries.

206. Tree nurseries will be established in selected strategic sites to supply seedlings for restoration. The target will be to produce 2 million seedlings per year for 4 years by community groups. The project will support the development of a planting plan, scoping, mapping and georeferencing of sites, public participation and awareness creation, seed acquisition and propagules as indigenous planting materials for water catchment rehabilitation, including bamboo, and other necessary work for nursery establishment. The project will take stock of existing manuals, guidelines (such as training manuals developed by KEFRI and KFS on nurseries and rehabilitation).

Activity 3.1.2.3: Rehabilitation of degraded areas:

207. The planting material from the nurseries will then be procured for by the project only after successful planting and growth in the designated sites (normally after 6-8 months survival). Through a restoration contract with the community organizations, they will receive 50% payment per seedling at plantation and then remaining funds after 1 year of plantation based on number of surviving trees. This activity will include maintenance of planted areas, enrichment planting, protection of natural regeneration through community scout patrols and forest rangers. In doing so, the participating CFA/WRUAs will gain capacity and skills.

Activity 3.1.2.4: Rehabilitation of degraded areas and reduced pressure on indigenous forested areas using traditional Ogiek knowledge and experience

208. The project will support the Ogiek Community to restore degraded areas in the Chepkitale Community Land through the use of traditional knowledge and customary practices to set aside degraded areas for natural regeneration and assisted natural regeneration patrolled by the community scouts trained under Activity 3.1.1.2: The project will also support the Chepkitale Ogiek with planting of woodlots (indigenous trees) in schools and other institutions to reduce the pressure for fuel wood from the surrounding landscape using the same approach as for activity 3.1.2.3.

209. Activity 3.1.2.5: Awareness raising and sustainable management of critical wetland areas. This activity will support identification and mapping of wetlands through community participation and use of indigenous knowledge in the management and rehabilitation of 100 ha.

Output 3.1.3: Highly degraded agricultural lands restored

210. This output aims at restoring the ecological balance needed to support sustainable agricultural productivity. It will strengthen the participation of local farmers through hands-on rehabilitation of degraded areas within their farms as well as on communal areas adjacent to private farms. It will also provide the opportunity for farmer communities to start implementing their ILM plans. Given that one of the major global environment benefits expected from this project will be derived from improved landscape and ecosystem diversity and ecological integrity in Mt Elgon region, effective and integrated management of soils, water, biodiversity is key.

211. As argued earlier a sub catchment is an appropriate unit for the purpose of planning interventions in the landscape. The project area has several sub catchments whose land is managed by local farmers and through the various WRUAs present in the project area. These community organizations together with other farmer organizations such as the coffee cooperatives and maize cooperatives have been created under the leadership of WRA and Ministry of agriculture, livestock and cooperative development. They are critical to the conservation and sustainable use of resources in the agricultural landscape and to the overall implementation of the national agriculture and water policies. Some of these community organizations have developed management plans for their respective areas but need support to implement them, while others are yet to acquire the capacity to develop such plans. Activities under this component are expected to strengthen implementation and increase the area (ha) of land with successful restoration. Water quality and quantity are also essential to communities? livelihoods (both agricultural and other uses) and for wildlife habitats (e.g wetlands) dotted along the landscape. However, poor management of water resource and over abstraction have often resulted in conflict, as water users compete for it especially during dry periods. Actions to maintain water quantity and quality will be implemented in the landscape. The Water User Associations operating in the project landscape require technical assistance and financial support to both continue fulfilling their water resource planning and conflict resolution and to implement initiatives with local communities to address their water needs in a sustainable manner.

212. The project will therefore allocate funds to WRUAs and other relevant community organizations to support the protection of communal water-intake areas that serve a large number of water users (wetlands, springs and streams), maintain partnerships and collaborative arrangements for conservation management, plan at a sub catchment scale to encourage co-operation between farming communities, and implement actions in the agricultural lands such as restoration of river bank vegetation by planting native species, assisting natural regeneration, management of cattle watering points, rainwater harvesting, more efficient irrigation agriculture for reduced water abstraction, controlling grazing and

improved farming practices that reduce siltation, such as promoting of soil conservation structures on farms.

213. In collaboration with the county governments, WRA and KFS, the following activities are planned:

Activity 3.1.3.1: Promote regenerative agricultural practices (soil health and conservation measures) on 1,000 hectares through introduction of crop diversification -fruits, highland arrow roots, tubers, indigenous vegetables and legumes. Specific attention will be given to promote agro-biodiversity and supporting pollinator-positive measures in the landscape.

Activity 3.1.3.2: Support establishment of fruit tree nurseries in 20 schools and training of environmental school masters across both counties.

Activity 3.1.3.3: Promoting agroforestry and creation of woodlots on farmlands (2,000 ha) building on FFF-related work carried out by Western Tree Grower Association. This activity is building on their ongoing program to inventorize trees on farms in Bungoma to understand potential for bio-enterprise development.

Output 3.1.4: Sustainable and innovative financing mechanisms identified and tested for conservation and restoration

214. This output will look at how more public and private finance can be mobilized to ensure long-term investments in conservation and restoration efforts within the Mount Elgon landscape. It will build on past experiences within Kenya to establish PES schemes, as well as promote sustainable enterprise development.

 Activity 3.1.4.1: Support the identification and development of PES scheme

215. In 2021 a coping study was conducted by GNI$_{plus}$ and AECOM to evaluate the potential for setting up a Payments for Ecosystem Services (PES) scheme at Mount Elgon as a first step in developing a sustainable source of finance for conservation of natural ecosystems and livelihoods that depend on these and to protect the cultural heritage of Mt Elgon. The project will build on the findings from the first phase and bring stakeholders together through the platforms under component 1 and identify the best way forward.

 Activity 3.1.4.2. Piloting of CFA concession model

216. Under this activity, the project will build on the experience of piloting Community/CFA concessions for small commercial plantations in degraded areas of Kirisia forest under the GEF-5 Funded ?Kirisia Participatory Forest Management Project? implemented by FAO in Samburu County, Kenya. The project will support the negotiations and signing of PFMPs and/or Forest Management Agreements (FMAs) between the targeted CFAs and KFS. The project will pilot the inclusion of a concession model into the FMA in order to provide much needed incentives and sustainable financing of CFA activities, monitoring and restoration of indigenous forest zones in the forest reserve. This model will provide an innovative financing model for CFAs across Kenya and has wide potential for up-scaling once thoroughly piloted. The model will also reduce the KFS planting/plantation backlog and increase availability of wood products on the market; reducing incentives for illegal extraction from the indigenous forest zones. Technical support will be provided by the project to develop a sustainable business model to leverage private sector funding and technical support. The project will

also facilitate KFS to develop a national framework for Community/CFA plantation concessions to regulate the scaling-up of the model nationwide in the future.

Component 4: Project coordination, collaboration, communication and M&E

Outcome 4.1: Effective knowledge management and M&E supporting scale-up and impact at national and global level

Key targets:

- Project M&E plan operational - with protocols for collection and analysis of results in place

- 20 knowledge products and tools shared with and/or adopted from the Global FOLUR Platform, Mt. Elgon Transboundary knowledge platform and national platforms

- Targeted technical support from Global FOLUR Platform to strengthen public-private dialogue on policies, practices and financing

- At least 10,000 men and women benefited from the Transboundary knowledge sharing platform

217. Under the fourth component, the project will ensure the implementation of a robust M&E system, linked to existing county and national monitoring and knowledge management systems. At the landscape level, coordination with the FOLUR IP child project in Uganda will be ensured through establishment of a transboundary platform for the Mt. Elgon Ecosystem. A knowledge management strategy will be developed and implemented, to facilitate exchange of knowledge with the FOLUR Global Platform and child projects, and to ensure that new knowledge generated by the project is amplified and replicated in other key landscapes in Kenya. In addition, in line with the objectives of the FOLUR Global Platform, targeted technical assistance will be sought from the Global Platform in order to facilitate public and private sector dialogue on policies, practices and financing for sustainable food systems and ecosystem restoration (Global Platform Pillar B ? Policy and Value Chain Engagement).

Output 4.1.1: Gender-responsive knowledge products, tools and approaches developed and shared the FOLUR IP Global platform and other relevant value chain platforms

218. A lot of knowledge products on sustainable natural resource management have been generated over the years from GEF and other donor-funded projects in Kenya. However, this wealth of knowledge is scattered across institutions and not easily accessible. Every new project has to undertake baseline studies without the benefit of past studies, thus duplication of efforts and waste of resources. The quality and standards of the data stored in various institutions cannot be ascertained if compatible with other data sets. Information is key for critical decision making but the content has to meet minimum standards for credibility.

219. The government of Kenya has developed the Knowledge Management Policy with a collective desire to establish a comprehensive policy and legal framework to guide efforts to harness its vast knowledge resources for national development. This Policy proposes establishment of Knowledge Management platforms; opening up access to knowledge platforms; strengthening existing; knowledge networks and for a; and facilitation of sharing and utilization of knowledge across a wide range of stakeholders. The Policy focuses on enhancing the institutional capacities to capture, analyze, store, retrieve, protect, share and apply the knowledge assets at each organization's disposal.

220. The project will develop a knowledge management strategy during project inception phase to ensure knowledge is appropriately; captured; analyzed; shared and incorporated into the project strategy. A key focus of the knowledge management strategy will document lessons/steps towards Integrated natural resource management and Land Use Planning, Sustainable Value Chains (coffee and Maize) and models for effective forest land management and restoration. The project will develop knowledge products that could be shared within the wider global FOLUR Platform, Kenya Coffee Platform and which will contribute towards FOLUR events. Learning Networks, the project team and stakeholders will also be participating in learning events organized under this umbrella.

221. More specifically, the project has allocated budget to attend regional learning events organized by the FOLUR Program Coordination Project. The project will also finance exchange visits within Kenya and with other FOLUR countries. These activities will be designed in close coordination with FOLUR partner countries to maximize learning and information exchange during the life of the project.

222. This Knowledge management output will be achieved through the following activities:

Activity 4.1.1.1: Knowledge management assessment and capacity building:

The project will undertake an assessment of existing knowledge management and sharing mechanisms existing within the project landscape for natural resource management, sustainable food systems and agricultural production and based on the gaps identified, a knowledge management and communication strategy will be developed during inception phase taking onboard the diversity of landscape actors and user groups. The activity will also include the identification of specific needs for technical assistance from the FOLUR Global Platform.

Activity 4.1.1.2: Capacity building on knowledge management:

223. Based on the assessment carried out above, the project will use the existing platforms to engage with the focal points of the different institutions, organizations and stakeholder representatives and build their capacity to enable transparent and clear sharing of knowledge and communicate as well as one from the targeted landscape.

Activity 4.1.1.3: Development of gender-responsive and targeted knowledge and communication products.

224. The project will develop at least four knowledge products each year and share them through the existing platforms established under component 1 and 2 as well as with the Global FOLUR platform. Specific attention will be given to develop themed products such as with a focus on gender to support sustainable production systems within the wider landscape. The project will also develop impact stories and communicate them through local and national communication channels. Lessons learned from restoration interventions will also be shared with the National Knowledge Sharing Platform on Restoration under development by KEFRI.

Activity 4.1.1.4: Development of indigenous knowledge products for documentation and communication of traditional knowledge

225. The project will develop at least one knowledge product each year documenting the various traditional knowledge of the Ogiek community in terms of livelihood practices, ancestral history, culture, biodiversity, conservation etc. Relating to the various activities implemented under the project. These knowledge products will be communicated within the Ogiek community and will be shared

through the existing platforms established under component 1 and 2 as well as with the Global FOLUR platform. Specific attention will be given to develop themed products such as with a focus on IP issues to support sustainable production systems within the wider landscape.

Activity 4.1.1.5: Development of indigenous knowledge products for communication in Ogiek language using local FMs

226. The project will support the development of project related communication (for development) content which will be broadcasted to the wider Ogiek Community of the Mt. Elgon landscape using local Ogiek tongue and the use of communication channels widely used by the Ogiek community such as ?Tulwoob koony FM?. The content will regularly disseminate the activities of the project and will concern project topics such as: The importance of Mt. Elgon Ecosystem; Traditional Knowledge; conservation; biodiversity; livelihood development; FFSs; gender and youth issues etc.

Activity 4.1.1.6: Development of Bio-Cultural Protocol and safe-guarding of intellectual property rights of the Cheptikale Ogiek of the Mt. Elgon ecosystem:

227. Bio-Cultural community protocols (BCPs) are instruments that set out clear terms and conditions to governments, private, research and NGO sectors for engaging with indigenous and local communities and the terms accessing their local resources and knowledge. They are developed through culturally rooted, participatory decision making processes within the communities that are based on communities customary norms, values and by-laws. The project will support the Chepkitale Indigenous People?s Development Project (CIPDP) to develop a BCP for the Mt. Elgon Ogiek Community, similar to that already developed for the Ogiek Community in the Mau forest complex. The Mt. Elgon Ogiek Bio-Cultural Protocol will also include issues of intellectual property rights of the Ogiek traditional knowledge and biodiversity used by the community.

Output 4.1.2: Effective M&E system established for the project

228. This output will support adaptive management, learning and accountability to stakeholders and beneficiaries, and to the GEF. It is through this output that the global environmental and socio-economic benefits generated by the project will be measured.

Activity 4.1.2.1: Development and implementation of adaptive and effective M&E system for the project

229. At project inception, the project M&E plan will be reviewed and further elaborated by the project teams and M&E specialist in consultation with partners. This will entail defining specific requirements for each indicator ? data collection methods, frequency, responsibility for data collection and analyses, taking into consideration costs and budget availability.

Activity 4.1.2.2: Capacity building of landscape stakeholders on M&E for FLR

230. The capacities for effective M&E for FLR are limited but crucial for the sustainability of the project. As such the project will build on existing tools and mechanisms (such as Collect Earth, applications, FAO monitoring FLR guidelines[19][19]) to develop the capacity of all landscape actors to effectively monitor the restoration efforts. This includes community-based monitoring, sub-county as well as county monitoring in line with the overarching ILMPs and targets identified.

Activity 4.1.2.3: Independent mid-term and final evaluation

231. The project needs to undertake an independent mid-term evaluation to guide the national PSC and PMU to effectively implement the project and if needed propose recommendations to ensure the anticipated results are achieved. The mid-term evaluation is also the only opportunity to revise potentially the targets set at project design. It involves in-depth consultations with all relevant project stakeholders at national, county and local level.

Output 4.1.3: Transboundary integrated M&E and knowledge system established for the Kenyan and the Ugandan Mt. Elgon landscape.

232. Both Kenya and Uganda secured GEF-7 FOLUR funding to support integrated landscape management of Mt. Elgon ecosystem focusing on Coffee, Maize and Banana value chains. In this regard, there is need to coordinate these two GEF-7 FOLUR projects for synergy to ensure greater impact. As such this output seeks to align ILM for the whole transboundary landscape through direct collaboration with the Ugandan FOLUR project that also focuses on Mt. Elgon.

Activity 4.1.3.1: Development of a common stakeholder platform ? **Mt Elgon Transboundary Multi-Stakeholder Platform**

233. A budget line has been included in the project to support collaboration with the Uganda FOLUR project. It will be critical to secure support from the relevant government ministries at policy level and with local authorities including the County government of Bungoma and Trans Nzoia (Kenya) as well as the relevant District/ Regional authorities in Uganda to mainstream and sustain this stakeholder platform beyond the project period. The Lake Victoria Commission (LVC) under East Africa Community (EAC) operates a transboundary platform for the wider basin ecosystem. The two projects will explore opportunities for anchoring this into the existing LVC platform. This is in recognition of the fact that Mt Elgon is the source of major rivers that drain into Lake Victoria and whose watershed transects the agricultural production landscape in both countries. The proposed transboundary platform will incorporate key value chain actors and other key stakeholders from both Kenya and Uganda, including the private sector and trade representatives. One of the expected outcomes of the workings of this platform is the improvement and development of appropriate landscape policies which will guide how local farmers and stakeholders will manage and conserve the landscape resources. Some of the proposed interventions of the Transboundary Platform are:

?   Due to the differences in agriculture policies, especially on coffee value chain, between Kenya and Uganda it is envisioned that the proposed transboundary interactions on the platform will identify and inform the necessary policy improvements for the region.

?   **Knowledge Management.** Develop mechanisms of exchanging knowledge and experiences during program implementation, for example, sharing annual reports on program progress, bi-annual meeting at the coffee platform, annual meeting of another value chain such as native vegetables, etc

?   Enhance the existing **traditional community networks** and secure **Bio-cultural Community Protocols (BCP)** of Mt. Elgon communities on both sides of the transboundary ecosystem.

?   Private sector dialogue, including with commodity companies, to further promote sustainability of practices in Mt. Elgon.

4)   Alignment with GEF focal area and/or Impact Program strategies

234. The project has been designed in line with all key principles and overarching structure of the FOLUR Impact Program (IP). In particular, the project contributes to FOLUR IP Focal Area outcome ?Transformation of food systems through sustainable production, reduced deforestation from commodity supply chains, and increased landscape restoration? and FOLUR IP objective 2 ?promoting deforestation-free agricultural supply chains to slow loss of tropical forests? and objective 3 ?promoting restoration of degraded landscapes for sustainable production and to maintain ecosystem services?. The project will work in the Mount Elgon Water Tower landscape which is one of five critical water towers of Kenya, with enhanced level of threat due to encroachment by expansion of agricultural production (coffee and maize). To address the complex challenges within the landscape, the project has adopted the FOLUR IP approach promoting an inclusive integrated land use planning approach linking agricultural production, biodiversity conservation and restoration. The project is also building on existing public and private initiatives and networks existing in Kenya and the project area to promote sustainable and inclusive production and management practices across all stakeholders of the targeted value chains.

235. Through the FOLUR global platform, the project will interact with the 27 country projects, to share and benefit from best practices and innovations emerging from these through the knowledge platform, and participation in Communities of Practice (CoPs) and global and regional meetings and learning events.

5)   Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

236. Without FOLUR intervention. The baseline analysis has identified gaps that need to be closed in order to address the degradation of the Mt Elgon landscape. The gaps include the very absence of good examples that can encourage county governments to invest in and undertake ILM, and very limited capacity to act on the increasing ecosystem degradation as well as poorly coordinated policy frameworks and interventions. However, the two county governments have taken positive strides towards addressing SLM itself and some climate change related challenges ? notably, the enactment of a County Climate change policy in Trans Nzoia and the County Environment Policy in Bungoma, among others. However, these positive actions remain largely sectoral, inadequately coordinated and do not enjoy significant financial and technical backstopping. It is noted that Mt Elgon has an increasing interest in integrated landscape approaches, driven by the expanding group of public (county governments), private (due to revitalization efforts in coffee and maize), and civil society actors (mobilizing communities). However, the scale and impact of such activities remain small in comparison to the present scale of single-sector approaches.

237. Without the FOLUR intervention, progress towards adoption of ILM in Mt. Elgon will be very slow, while the ecosystem degradation continues. Less evidence will be available to support multi-sectoral collaboration and the design of effective investments ? leading to poor targeting of county, private sector and development funding, loss of time and opportunity. Meanwhile, sector-based objectives and plans are likely to continue being pursued (e.g. expansion of production areas under

coffee as part of the revitalization project), resulting in large areas of the landscape not being able to provide key ecosystem goods and services.

238. The integrated management of the Mt. Elgon landscape has become more urgent. The Government of Kenya has prioritized the revitalization of the coffee industry and Western Kenya is a key area well suited for the production of high-quality coffee. If this is not done in a sustainable way, guided by integrated landscape planning, it could place further pressure on already degraded landscapes.

239. With FOLUR interventions: The FOLUR project will facilitate collective action in the restoration and sustainable management of Mt Elgon for global environmental and local benefit, as further elaborated in the table below.

Table 5: Incremental cost reasoning

Project component	Baseline scenario	With-project scenario
1. Development of integrated landscape management (ILM) systems	The baseline for component 1 consists: of County Integrated Development Plans (CIDPs) which provide an overall framework for development and public investments over five years; Ecosystem Management Plans for gazetted areas; and County Environment Committees. Currently there is no uniting mechanism or framework bringing together landscape stakeholders and value chain actors to promote an integrated and sustainable approach for the Mt Elgon landscape. As a result, cross-sectoral planning is limited and sectoral policies lack coherence. This hampers the development and implementation of landscape strategies and plans.	With the FOLUR project, capacities for multi-stakeholder participatory ILM development, implementation and monitoring will be strengthened at county and local landscape level. The project will also ensure equal and inclusive participation of all landscape actors (including Ogiek community). Policies will be reviewed and national policies will be domesticated and aligned to enable and incentivize sustainable coffee-maize systems and landscapes. The FOLUR project will generate ILM experience and models that will be shared with other coffee growing areas in Kenya as well as with other Water Towers where production systems threaten ecosystems at large.

2. Promoting sustainable and inclusive coffee and maize value chains	The broad baseline for component 2 consists of the Coffee Revitalization Project (CRP), an intervention that aims to increase coffee production and productivity in coffee producing counties across Kenya; the Kenya Coffee Platform, and maize value chain platform; and Bungoma and Trans Nzoia county public extension programs. There are a number of gaps in this baseline that limit the take-up of sustainable and inclusive food systems. These include: insufficient capacities of the extension system to transfer knowledge and skills on CSA technologies and practices; smallholder farmers? limited access to quality inputs; absence of multi-stakeholder platforms for value chain actors at county/landscape level; and limited access to markets and incentives to spur adoption of sustainable practices and technologies.	GEF funding will support strengthening of capacities ? both smallholder farmers and support institutions, and introduction of innovative extension, finance/incentive and market models ? elements important for the adoption and scale-up of sustainable coffee and maize production. Through establishment/enhancement of public-private partnership platforms (county coffee and maize platforms), the project will promote coherence among the currently fragmented initiatives in Mt. Elgon.

| 3. Conservation and restoration of degraded forest ecosystems | The key baseline for component 3 is the national FOLAREP which aims to restore 5.1 million degraded landscapes across Kenya by 2030 and which has been developed with the support of GEF-6 project. Kenya is also committed to increase national tree cover to 10%. Counties are encouraged to contribute to this target.

Kenya Forest Service (KFS) through their Adopt a Forest programme is working with county governments and community groups to support forest restoration.

Within Mt Elgon landscape, there have been several fragmented efforts on restoration remaining small and not coordinated. A significant gap in the baseline is the absence of a mechanism for coordinated approach in mobilizing investments for landscape restoration. Public funding is important, yet not sufficient for long-term implementation of landscape restoration. Hence, the need for mechanisms that tap into diverse and innovative financing sources. | With the GEF project, technical support will be provided to implement participatory forest landscape restoration in the Mt. Elgon landscape by building technical capacities of stakeholders and putting in place a sustainable financing mechanism for landscape restoration.

The project will contextualize the Forest and Landscape Restoration implementation Action Plan (FOLAREP) at the county level and promote inclusive well-coordinated conservation and restoration across Mt Elgon landscape. |
| 4. Knowledge management and M&E | Several community-based organizations and structures (Council of Elders, CFAs, WRUAs), as well as institutional structures such as the County Environment Committees, form an important baseline for knowledge management at landscape level.

At national level, a national Knowledge Management Platform on FLR is under development with support of the GEF-6 TRI project. | GEF funding will facilitate knowledge management to ensure that project activities are informed by cutting-edge global knowledge and that new knowledge generated by the project is amplified and replicated through landscape, national and regional-level platforms. Through connection with the FOLUR Global Knowledge Platform knowledge coming out of Kenya will be shared globally, while accessing innovations and best practices from FOLUR countries, including Uganda.

Specific efforts will be made to share knowledge on indigenous knowledge, and women role and impact through restoration and inclusive value chain development. |

6)   Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

240. The project is designed to deliver global environment benefits (GEBs) across multiple focal areas. The following table provide a summary of these GEBs:

Table 6: GEBs from project key interventions

GEF 7 Core Indicator Targets	Expected contribution of the GEFTF
6 million hectares of land restored.	10,000 hectares
320 million hectares of landscape under improved practices (excluding protected areas).	50,000 hectares

241. Carbon benefits: Project mitigation potential 8,201,468 tons of CO_2 eq, over a 20-year period (5 of which for project implementation). This includes emissions avoided of 1,39 M tons of CO_2 eq due to reduced degradation of existing forests/plantations, and 3 M tons of CO_2 emissions mitigated due to improved management structures in place across the watersheds.

242. The above GEBs are based on the following considerations:

? Sustainable Forest Management and Biodiversity Conservation: Project activities will include improved capacity of Community Forest Associations (CFAs), WRUAs and Indigenous Community to sustainably manage 62,703 ha of natural forest and forest plantations in the Mt Elgon Water Tower. They will be supported to revise/develop Participatory Forest Management Plans and Sustainable Ecosystem Management Plans with identification of priority interventions such as: (i) improvement of forestland through active restoration interventions, protection measures such as enclosure areas, assisted natural regeneration, climate-adaptive fire and biomass management, and sustainable use of wood and NTFPs); (ii) reduction of pressure on fuelwood from natural forestland through the planting of woodlots with a mix of native and naturalized multipurpose tree species. Under the SCMs, 19,900 hectares will be targeted for biodiversity conservation and protection and activities include the protection of springs and riverines, promotion of pollinator trees/shrubs, promotion of biodiversity important species in the landsape.

? Landscape restoration: Project activities will include the restoration of 7,000 ha of degraded forest areas in the Community-managed Forest reserves and the restoration of degraded forest and farm land on smallholder plots and communal lands. As a result of the FLR landscape planning, priority areas for restoration interventions to enhance ecosystem services, habitat connectivity and landscape resilience will be identified, and site-specific restoration techniques will be applied. Priority interventions will include: the production and planting of high-quality plant material (seeds, seedlings and cuttings) from diverse native tree/shrub species, and the implementation of effective field restoration interventions to increase water availability and seedling survival. The project will also target the restoration of 3,000 ha of highly degraded agricultural land through the promotion of improved soil and water conservation practices, agroforestry and woodlot creation, planting of N-fixing trees

? Sustainable production systems: Project activities will include the sustainable intensification of coffee agroforestry production systems on 10,000 ha and the adoption of sustainable climate-smart maize prodution practices on 20,000 hectares.

7) Innovativeness, sustainability, potential for scaling up and capacity development[20]20

Innovativeness

243. The design includes a number of aspects considered innovative, especially in the context of the Mt. Elgon landscape and the two project counties:

? Integrated landscape management approach. In line with the overall FOLUR Impact Program framework, the project has adopted the Integrated Landscape Management (ILM) approach, which is appropriate for addressing the complex and interlinked agricultural and environmental issues in the Mt. Elgon landscape. While this is not novel for Kenya, the approach is innovative for the target landscape as it brings the wide range of stakeholders together.

? Inclusive partnership with Indigenous Peoples. Within the Mt. Elgon landscape, there have been land and natural resource management conflicts for a long time, and through the project approach, the Ogiek community will be fully integrated into the planning, implementation and monitoring of the project. The FOLUR project will also identify and capture important traditional knowledge on conservation and restoration to share it widely across the different platforms.

? Innovative business hubs (G-hubs) for service delivery and market access. Access to markets is critical to ensure that producers get a fair price for their sustainable products. The project will build on existing programmes in Kenya where maize farmers are supported to form cooperatives and linked to aggregation centers (G-hubs) connecting them to potential buyers. Related to this, the project will support the digitalization of coffee information and support farmers to get access to the information in order to address the issue of transparency in the coffee value chain. This will be part of the process of certification as well.

? Sustainable and innovative financing mechanisms for landscape restoration. A scoping study was undertaken by GNI+ to analyze the opportunity for a PES scheme in the Mt Elgon area. The project will further support the necessary steps to establish such a PES scheme. It will also build on the Kenya Carbon project to support local communities to receive carbon payments for their uptake of GAPs. The project will also support piloting of concession model for CFAs, which could be instrumental in changing the approach in Kenya towards sustainable models for restoration and sustainable management.

Sustainability

244. The success and sustainability of the project outcomes in Mt Elgon will rely on strong stakeholder support at different levels ? at policy and institutional level and at landscape level with smallholder farmers and communities including Indigenous Peoples. The project will facilitate and maintain this support through the multi-stakeholder platforms (with private sector) and policy dialogues, delivery of tangible environmental and socio-economic benefits responding to stakeholder priorities and monitoring and communicating clearly project achievements with stakeholders.

245. In terms of financial sustainability, the project will facilitate mainstreaming of ILM plan implementation into County Integrated Development Plans, which guide medium-term public investments at county level; and mobilize funding from the private sector and development partners through the investment plan that will accompany the ILM plan; and support the identification/establishment of financing mechanisms for landscape restoration.

246. The capacity development programs on ILM and sustainable coffee and maize production ? for smallholder farmers, cooperatives and other value chain actors, will also contribute to sustainability.

Potential for Scaling-Up

247. Although the project is implemented in Bungoma and Trans Nzoia County, challenges occurring within those counties in addressing forest and land degradation are representative of the other Water Tower landscapes in Kenya. There is therefore an opportunity to showcase innovative and sustainable ILM approaches and inclusive coffee and maize value chain models to scale-up elsewhere. This is also not only limited to these value chains, as the integrated landscape approach cuts across different sectors and the approach both Counties will adopt can be shared with other Counties through Council of Counties as well.

248. The project will also promote localized capacity building of farmers and cooperatives and promote the organization of demonstration days/forums to bring other farmers/stakeholders together to promote peer-to-peer exchange and as such promote scaling up beyond the project sites.

249. Through the connection with national institutions and platforms (such as Kenya Coffee Platform), the national Project Steering Committee, the broad range of implementing and co-financing partners, we believe this as an excellent approach to facilitate scaling up. Through the effective knowledge management and sharing strategies put in place by the project, valuable lessons learned will be captured and communicated within Kenya and with Uganda to enable scaling-up. The participation of the project in the Global FOLUR platform (including Gender Working Group) and associated global regional forums will also be a way to promote sharing and possible scaling up.

Capacity Development

250. The project formulation phase highlighted several capacity gaps at both individual and organizational levels, especially related to the nature, scope and complexity of the ILM-related implementation tools (e.g. integrated landscape planning, ecosystem restoration, SLM, SFM, Sustainable Value Chain development). This lack of capacity is mainly due to: (i) the fact that previous projects/initiatives have not fully dealt with the interlinkages between impacts and complementarities of the agricultural production system and the natural ecosystem/water tower in the target landscape; (ii) the fact that the country has a limited number of extension human resources ?at the County, Sub-county and ward level ? and little knowledge of ILM-related tools, that prevent the circulation of lessons learned and good practices to practitioners. The formulation team also identified gaps for the establishment of an enabling environment to the implementation of ILM, including the (i) lack of cross-sectoral coordination and cross-compliance; (ii) lack of implementation and weak enforcement of existing policies developed without accompanying implementation frameworks; (iii) insufficient and inadequate financing instruments often supporting maladaptive natural resources management practices. All these gaps will be tackled through the capacity development work that is strongly embedded across the work plan of the project.

251. At the beginning of the project, the capacity gaps and needs of all stakeholders belonging to institutional, private, civil society, and community sectors will be mapped, based on the information previously gathered during the formulation phase, but also through the use of the FAO Capacity Needs Assessment Tool, which will implement a capacity assessment of all concerned stakeholders in the target landscapes across the three CD dimensions ? individual, organizational and enabling environment. The assessment will be guided by the County and sub-county multi-stakeholder platforms and inform and guide the fine tuning of the capacity development actions throughout the four project components that will include a mix of tools ? the training of trainers; the establishment and running of farm and forest learning groups; training on FLR planning; training and demonstrations on policy formulation and advocacy work.

Under component 1, a participatory capacity needs assessment will be carried to fully understand and analyze the gaps in capacities of all landscape actors and organizations to fully engage and contribute to Integrated Landscape Planning. Based on this assessment, targeted training will be organized following local context and tools to ensure that everyone is equipped with best available knowledge and information.

Under component 2, the project will provide support to develop the capacity of all actors along the coffee and maize value chains. The first priority is to increase productivity in a sustainable and climate-smart way, as such the project will develop local specific training manuals and organize trainer of trainers and extension staff training to ensure the targeted smallholder farmers will be able to improve their production in order to also have better access to markets. The second priority is to train the cooperatives and associations in better governance and processing matters to ensure transparent value chain with an integrated management system in place. Capacity will also be strengthened in processing of coffee and maize to avoid losses.

Under component 3, the project will also undertake a participatory assessment to assess the capacities of local community organizations and groups (such as women/widow and youth groups) and Indigenous Ogiek community to undertake restoration planning and implementation of interventions on the ground. This will include training on species identification, ROAM, nursery establishment, soil and water conservation practices which will support the restoration of degraded forest and agricultural lands. Specific attention will also be given to local schools to undertake restoration activities and develop ?masters? to act as local champions.

Under component 4, capacity will be developed on adaptive knowledge management and sharing as well as on landscape monitoring. This will include participation in the Global FOLUR platform meetings (virtual and face to face) to enhance the capacity of stakeholders to interact with global/regional alliances to promote sustainable value chains.

8) Summary of changes in alignment with the project design with the original PIF

252. The below table provides an overview of changes in project design with the original PIF

PIF	FOLUR Project

Project duration: 48 months	Changed to 60 months as more realistic for this type of project.
Component 1 Output 1.1.1: Integrated participatory landscape management plans developed and implemented in the Mt. Elgon landscape. Output 1.1.2: Capacity building programs implemented to support participatory development and implementation of ILM. Output 1.1.3: Multi-stakeholders dialogue and County Environment Committees strengthened to harmonize and influence policies, actions, and catalyze and scale-up green investments.	*Component 1* We have switched the outputs order to ensure a better flow of proposed activities which are all aligned.

Component 2	*Component 2*
Output 2.1.1: Sustainable climate-smart agricultural practices and innovative technologies promoted.	The first 2 outputs were merged under output 2.1.1. A specific output on innovative Business Hubs was created, as well as an additional output on entrepreneur skill development for nature-based enterprises (2.1.5) and output on livelihood development support for the Indigenous Ogiek community (2.1.6).
Output 2.1.2 Capacity development programs implemented for smallholder farmers, cooperatives and other value chain actors to promote sustainable coffee and maize production.	
Output 2.1.3: Sustainable coffee standards, certification and traceability systems developed and promoted with innovative incentive mechanisms.	Output 2.1.1: Inclusive and equitable capacity development programs implemented for smallholder farmers, cooperatives and other value chain actors to promote sustainable coffee and maize production.
Output 2.1.4: Incentive mechanisms established to promote sustainable coffee value chain development	Output 2.1.2: Innovative Business hubs established to promote market access and service delivery to smallholder farmers.
	Output 2.1.5: Capacities of entrepreneurs/community groups strengthened on nature-based business development
	Output 2.1.6: Livelihood Enterprises of the Chepkitale Ogiek Community of the Mt. Elgon Ecosystem promoted through sustainable enterprise development
Component 3	*Component 3*
Output 3.1.1: Capacity of county and community-level institutions for conservation, restoration and rehabilitation of degraded lands and forest habitats strengthened in both degraded forest and agricultural landscapes.	An additional output was created to support sustainable and innovative financing mechanisms for restoration:
Output 3.1.2: Highly degraded forest sites restored.	Output 3.1.4: Sustainable and innovative financing mechanisms identified and piloted for conservation and restoration
Output 3.1.3:Highly degraded agricultural lands restored	

Component 4	Component 4
Output 4.1.1: Knowledge products, tools and approaches developed and shared through the FOLUR IP Global platform and other relevant value chain platforms.	The description of the outputs was changed slightly and the original 4.1.3 was integrated under the first component. The original output 4.1.2 has been split up.
Output 4.1.2: Transboundary integrated M&E and knowledge system established for the Kenyan and the Ugandan Mt. Elgon landscape.	Output 4.1.1: Gender-responsive knowledge products, tools and approaches developed and shared through the FOLUR IP Global platform and other relevant value chain platforms such as Kenya Coffee Platform.
Output 4.1.3: Cross-sectoral coordination mechanisms strengthened/established at county and landscape levels	Output 4.1.2: Effective M&E system established for the project Output 4.1.3: Transboundary integrated knowledge sharing system established for the Kenyan and the Ugandan Mt. Elgon landscape

[1]BirdLife International (2021) World Database of Key Biodiversity Areas. Developed by the KBA Partnership: BirdLife International, International Union for the Conservation of Nature, American Bird Conservancy, Amphibian Survival Alliance, Conservation International, Critical Ecosystem Partnership Fund, Global Environment Facility, Re:wild, NatureServe, Rainforest Trust, Royal Society for the Protection of Birds, Wildlife Conservation Society and World Wildlife Fund. September 2021 version. Available at http://keybiodiversityareas.org/kba-data/request

[2] MENR. 2016. National Assessment of Forest and Landscape Restoration Opportunities in Kenya.

[3] Kenya National Biodiversity Threat Assessment, 2020. https://www.biodev2030.org/wp-content/uploads/2021/07/Annexe-33_Rapport-Final_National-Biodiversity-Threat-Assessment_Kenya.pdf

[4] On average, the post-harvest losses in maize in Kenya range between 20-25% (ASTGS).

[5] Coffee Directorate Statistics Year Book (2018/19)

[6] Land Degradation Assessment in Kenya, 2016, http://www.environment.go.ke/wp-content/uploads/2018/08/LADA-Land-Degradation-Assessment-in-Kenya-March-2016.pdf

[7] Climate Service Center Germany (2016). Climate Fact Sheet ? Kenya. Updated version 2015

[8] Climate Change Vulnerability Assessment of the Mau Forest Complex, Cherangany Hills, and Mt. Elgon Water Towers in Kenya, 2018

[9] Kamau et al, 2017. Maize Value Chain for Food Security and Poverty Reduction in Bungoma County, Kenya. DOI: 10.9790/2380-1007013039

[10] Masayi et al. 2021. Assessment of land use and land cover changes in Kenya?s Mt. Elgon forest ecosystem. African Journal of Ecology.

[11] Source: Masayi et al. 2021. Assessment of land use and land cover changes in Kenya?s Mt. Elgon forest ecosystem. African Journal of Ecology.

[12] Langat, D., Cheboiwo, J., Kagombe, J., Kiprop, J., Gatama, S., Kisiwa, A., Okoth, S., Ghuza, A., Smith, N., Kanyanya, E., DeMeo, T., Kerkren, J., Doud, B. (2019). Economic Value of the Mau Forest Complex, Cherangany Hills and Mt. Elgon Water Towers in Kenya.

[13] Agricultural Sector Transformation and Growth Strategy

[14] National Agricultural and Rural Inclusive Growth Project

[15] Kenya Climate Smart Agriculture Project

[16] https://asdsp.kilimo.go.ke/

[17] Milder et al, 2014. Integrated landscape initiatives for African agriculture, development and conservation: A region-wide assessment. *World Development 54*, 68-80.

[18] Boscolo, M., Lehtonen, P. and Pra, A. 2021. Developing bankable business plans ? A learning guide for forest producers and their organizations. Forestry Working Paper No. 24. Rome, FAO. https://doi.org/10.4060/cb4520en

[19] http://www.fao.org/in-action/forest-landscape-restoration-mechanism/resources/e-learning-courses/monitoring-flr/en/

[20] System-wide capacity development (CD) is essential to achieve more sustainable, country-driven and transformational results at scale as deepening country ownership, commitment and mutually accountability. Incorporating system-wide CD means empowering people, strengthening organizations and institutions as well as enhancing the enabling policy environment interdependently and based on inclusive assessment of country needs and priorities.

? Country ownership, commitment and mutual accountability: Explain how the policy environment and the capacities of organizations, institutions and individuals involved will contribute to an enabling environment to achieve sustainable change

? Based on a participatory capacity assessment across people, organizations, institutions and the enabling policy environment, describe what system-wide capacities are likely to exist (within project, project partners and project context) to implement the project and contribute to effective management for results and mitigation of risks.

? Describe the project?s exit / sustainability strategy and related handover mechanism as appropriate.

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Table 2. Project site location (source: Bungoma CIDP 2018-2022 and Trans Nzoia County Spatial plan 2020-2030)

	County	Sub-county	Population	Size (km2)	Coordinates
1.	Bungoma	Mount Elgon	241,171	963.3	N 1.149051, S 0.757288, W 34.402124, E 34.812072
		Cheptais			
2.	Trans Nzoia	Endebess	91,192	676.9	N 1.299827, S 0.999116, W 34.550690, E 34.950231
		Saboati	166,482	349.9	N 1.062796, S 0.843124, W 34.672375, E 35.033375

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

254. The Kenya child project is part of the FOLUR Impact Programme (IP) which seeks to promote sustainable integrated landscapes and efficient food value & supply chains at scale. The program is based on the growing recognition that food production systems and land-use need to evolve over the coming years for the health of the planet. The FOLUR IP aims to encourage a transformation to more environmentally sustainable production and practices to sustain natural capital, biodiversity and ecosystem services for Global Environmental Benefits (GEB). The FOLUR IP is targeting large production landscapes for eight commodities: beef, cocoa, corn, coffee, palm oil, rice, soy and wheat and is structured with a Global Umbrella Platform and 27 country projects. The FOLUR IP will use an integrated approach to achieve systemic environmental change and support improvements in human well-being, resilience, and economic growth and prosperity. To realize this comprehensive vision, FOLUR will harness the expertise and reach of multiple sectors: the private sector, governments, financial institutions, land managers, research institutions, and civil society.

Table 8. FOLUR IP linkages:

FOLUR Impact Program		Kenya Country Project	
Program objective: To promote sustainable, integrated landscapes and efficient food value & supply chains at scale		**Project objective**: To transform coffee and staple food production systems through integrated landscape management for the conservation and restoration of Mt. Elgon Ecosystem	
GEF Core Indicators:		**GEF Core Indicators:**	
Core Indicator 3: Area of land restored	2,387,402 ha	Core Indicator 3: Area of land restored	10,000 ha
Core Indicator 4: Area of landscapes under improved practices	42,954,864 ha	Core Indicator 4: Area of landscapes under improved practices	50,000 ha
Core Indicator 6: GHG emissions mitigated	304,701,753 tCO2e (direct)	Core Indicator 6: GHG emissions mitigated	8,201,468 tCO2e (direct)
Core Indicator 11: Direct beneficiaries	7,277,223 (3,609,733 female)	Core Indicator 11: Direct beneficiaries	60,000 (of whom 30,000 are female)

FOLUR Impact Program	Kenya Country Project
Program Component 1: Development of integrated landscape management systems	**Project Component 1**: Development of integrated landscape management (ILM) systems
<u>**Outcomes:**</u> ? Participatory planning and mapping for improved land use & management at landscape level promoted ? National land use plans and policies on land use planning and management influenced ? Governance systems strengthened and capacity built across landscape and land use management institutions and at national level ? Policies and incentives promoted for innovation & scale up of sustainable practices at national scale. <u>**Indicators:**</u> ? Number of landscapes or jurisdictions with improved planning & management practices to foster sustainable food systems ? Number of countries with improved enabling conditions, institutional mandates, and incentives for ILM ? Number of landscapes or jurisdictions with environmental / sustainability standards in place, enforced ? Number of national multi-stakeholder dialogue mechanisms/platforms effectively operated for integrated landscape management	<u>**Outcome 1.1**</u>: Mt. Elgon landscape managed sustainably with ILM plans under implementation. <u>**Indicators and targets:**</u> ? 4 landscapes with ILM plans in place for sustainable management. ? At least 2 gender-responsive policy frameworks updated/developed supporting ILM ? One (1) intercounty and four (4) sub-county multi-stakeholder platforms established to promote ILM
Program Component 2: Promotion of sustainable food production practices & responsible commodity value chains	**Project Component 2**: Promoting sustainable and inclusive cocoa and oil palm value chains

FOLUR Impact Program	Kenya Country Project
Outcomes: ? Improved land use practices and restoration activities in major production landscapes adopted and scaled up ? Governance structures & tools improved to reorient stakeholder practices toward sustainable productive use and restoration ? Policies & incentives improved for scale up of climate-smart, sustainable production practices and value chains at national level ? Partners, value chain actors, financiers and investors regularly convened, motivated and influenced to promote innovation, replication & scale up **Indicators:** ? Area of degraded land restored for production ? Area on which producers apply improved agricultural practices as measured by SDG 2.4.1 (area under sustainable agriculture) ? Production area with investment in sustainable, responsible practices in target commodity & food production systems increased ? Number of Companies / Value chain organizations committed to sustainable, responsible sourcing of commodities increased ? Number of national enabling environments promoting sustainable food production and deforestation free commodity supply chains ? Number of national multi-stakeholder dialogue mechanisms/platforms effectively operated for sustainable commodity supply chains and across commodities ? Landscape area with reduced conversion and degradation of forests & natural habitats ? Public and private investments leveraged in support of sustainable commodity value chains through PPP or adoption of sustainability standards and practices	**Outcome 2.1**: Improved efficiency and sustainability of coffee and maize production systems **Indicators and targets:** ? 50,000 ha under sustainable practices. ? 2 county coffee value chain platforms operational - 1,000 hectares of coffee in the process of certification
Program Component 3: Restoration of natural habitats	**Project Component 3**: Conservation and restoration of degraded forest ecosystems

FOLUR Impact Program	Kenya Country Project
Outcomes: ? Sustainable land use practices and restoration activities scaled up in target landscapes and beyond ? Governance strengthened and institutional capacity built for landscape restoration ? Policies and incentives improved at national level to contain expansion, increase productivity, promote & scale up restoration actions ? Partners, value chain actors, financiers and investors regularly convened, motivated and influenced to encourage responsible & sustainable production, sourcing & marketing **Indicators:** ? Area or number of jurisdictions with improved and participatory approaches for restoration adopted ? Area of landscapes with clarified boundaries and allowable land uses in protected and production systems ? Area of land where degradation is avoided in degraded landscapes / habitats ? Area of degraded land restored for conservation and environmental services ? Tons of GHG avoided/sequestered	**Outcome 3.1**: Increased Mt Elgon landscape area under conservation and restoration **Indicators and targets:** ? 10,000 ha of degraded landscapes under restoration (7,000 hectares of forests, 3,000 hectares agriculture). ? 8,201,468 Metric tons of CO_2e of GHG Emissions mitigated.
Program Component 4: Program coordination, collaboration, and capacity building	**Project Component 4**: Knowledge management and M&E

FOLUR Impact Program	Kenya Country Project
Outcomes: ? Management, coordination & M&E effectively implemented ? Program Capacity Strengthening effectively delivered ? Policy & Value Chain actors effectively and regularly engaged ? Strategic Knowledge Management & Communications effectively implemented ? Program level mechanisms established to efficiently coordinate country projects with global multi-nationals and industry associations for efficient linkages to supply chains and production systems **Indicators:** ? Integrated, efficient and effective child projects working toward common global FOLUR goals ? Number of global, regional, national commodity platforms strengthened through adoption of sustainability standards, traceability mechanisms, or increased stakeholder representation ? Strengthened policies of buyers (retail, consumer, traders) for deforestation free commodities and connections and benefits to FOLUR landscapes ? Number of events & documents disseminated to share knowledge beyond FOLUR countries through S-S exchanges, conferences, and global events, including community of practice	**Outcome 4.1:** Successful execution of the project in an effective manner, with knowledge sharing and adaptive learning through the FOLUR global platform. **Indicators and targets:** ? Number of project counterparts participating in FOLUR global and regional communities of practice (CoPs) and learning events. ? At least 1,000 people reached through transboundary Knowledge sharing platform. - Targeted technical support from Global FOLUR Platform to strengthen public-private dialogue on policies, practices and financing (Global Platform Pillar B ? Policy and Value Chain Engagement). ? Knowledge, communication products and tools, shared with FOLUR Global Platform, regional and national platforms such as Kenya Coffee Platform. Some of the indicators are under components 1 and 2 (above) will contribute to the program indicators on policy and commodity platforms.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

255. During project formulation, the Project Design Team met and consulted a broad range of stakeholders at the national and county/local levels to assess the Mt. Elgon ecosystem degradation

drivers and challenges, confirm target landscape boundaries, define the theory of change and priority interventions, and identify best practices and opportunities for partnership with key programmes.

256. Despite the challenging COVID-19 context and associated restrictions, the team was able to organize workshops (some of which were held online), bilateral meetings and field visits, following Government protocols in place. The main stakeholders identified and consulted include governmental institutions, research institutions, NGOs, CSOs, private sector, international development agencies and local stakeholders (smallholder farmers and communities). Specific attention was given to the Ogiek indigenous community which is living within the project area to discuss if and how the proposed project can support and engage them in the restoration and sustainable management of the ecosystem, while also contributing to improved livelihoods in line with their traditional culture.

257. Specific activities on stakeholder consultation and engagements included the following:

PPG Inception Workshop

258. The inception workshop took place online on 9 and 10 of February 2021, with the participation of the GEF Project Design Team, Representatives of FAO (Rome, Kenya), Representatives of the lead national partners (MEF and MALFC), Representatives of both County Governments (County Executive Committee (CEC) for Environment Trans Nzoia and CEC for Agriculture Bungoma County) and a large number of representatives of national and county-level governmental institutions, research organizations, NGOs, private sector, and international development agencies. The objective of the inception workshop was to introduce the project and the project development team, review proposed project preparation approach and activities, promote knowledge/tool sharing, review and assess other current initiatives relevant to this project, identify potential co-financing, endorse the project preparation approach, and launch the project preparation activities by the national authorities.

Stakeholders? Consultations (SC).

259. The Project Design Team organized several rounds of consultations with the support of KFS, KALRO, County Governments and FAO Kenya, between March 2021 and October 2021. Meetings with key informants, field assessments, interviews with local farmers, workshops, and focus groups discussions, took place at national, county and landscape level, involving a wide range of stakeholders (governmental institutions representing different sectors; users and producer organizations; Ogiek community, researchers; NGO and CBO representatives; private companies; protected area managers, key informants of partner organizations) to obtain their perspectives on proposed project interventions and implementation arrangements.

Indigenous Peoples consultation (FPIC step 1 - 3)

260. The project team has been fully aware of past issues and conflicts between the Ogiek community and national government. As such, special attention was given to ensure local consultation with the community through field missions undertaken in October 2021. Representatives of the Ogiek community also participated in the national writeshop and validation workshop. The following recommendations were made by the community: (1) ensure continued strong local consultation to identify the needs and priorities of the Ogiek community; 2) use local governance mechanisms and integrate them in project implementation; (3) provide opportunities to local communities to diversify their livelihoods and not only focus on coffee as it does not reflect their current livelihood patterns; (4) provide support to develop sustainable management plans for forest and grassland ecosystems.

Following these recommendations, the PPG Design Team was invited by the Ogiek community for a large consultation meeting in Mt Elgon on 18 November 2021. On 26 and 27 November 2021 the design team met again with representatives from Ogiek community to discuss and validate proposed project activities linked to the needs and priorities of the Ogiek.

Partnership Consultations

261. Several consultations took place with national and international institutions responsible for related initiatives and buyer companies, to explore coordination arrangements and partnership agreements. These included: WB, Kenya Coffee Platform, WRI, WRA, ministries and government departments, private companies (Africa Coffee Roasters, One Acre fund, Equity Bank, Green Pot Enterprises,), and NGOs (Vi Agroforestry, Rainforest Alliance, Solidaridad, International Crane Foundation/Endangered Wildlife Trust Partnership, E4Impact).

Validation Workshop

262. A broad multi stakeholder workshop was organized on 26 and 27 October 2021 to bring together representatives from all stakeholders to finalize the full project document. This was followed by a national validation workshop on 28 October 2021.

263. During the validation workshop representatives of the national government, the County Government, the Farmers Cooperatives and the Ogiek Community were given the platform to express their inputs and views on the design. The project design was validated with the following recommendations: (1) ensure strong community engagement and outreach plan from the start to ensure local ownership to promote long-term sustainability; (2) enhance productivity sustainably at the farm unit as a whole looking at a variety of crops beyond just coffee and maize to ensure improvement of livelihoods to stop the degradation of the forest ecosystems; (3) adopt strong coordination of all actors within the broader landscape with county governments in the driving seat; (4) Promote local-adapted training on GAP and GMP; (5) strengthen the capacities of cooperatives to manage and reach out to the markets to improve the livelihoods/incomes of their member farmers, 6) Establish a strong communication mechanism to ensure that all the stakeholders are kept up-to-date.

Table 8. Project key stakeholders and roles:

Category	Partners	Expected Roles
UN Organization	Food and Agriculture Organization of the United Nations (FAO)	**GEF Implementing Agency**. To provide project cycle management services as established in the GEF Policy. It will be responsible for providing oversight, technical backstopping and supervision of project implementation to ensure that the project is being carried out in accordance with the approved project document and GEF rules and requirements.

National Government	Ministry of Environment and Forest (MoEF)	**Lead Government Partner.** To provide strategic leadership to the implementation of the project, working closely with other government ministries, particularly the Ministry of Agriculture, Ministry of Water, the County Governments of Trans Nzoia and Bungoma, the National Treasury and several para - government organizations. The MEF will nominate the Chair of the Project Steering Committee while the County Governments will facilitate multi-stakeholder dialogues at landscape level.
	Ministry of Agriculture, Livestock, Fisheries and Cooperatives (MoALFC)	**Government Partner.** Both at the National and County level. At the County level, the Ministry will play a strategic role in promotion and coordination of agriculture extension services through the FFS and farmer field days. The Ministry will also be part of the project steering committee and coordinate the Agriculture multi-stakeholder platforms. At the National level, the Ministry will provide a link and present an opportunity for synergies with National programs such as NARIGP, inputs subsidy and agriculture insurance program. The Coffee Directorate, which is under the Agriculture and Food Authority (AFA), will play a key role in licensing the nurseries and the coffee dealers.
	Ministry of Industrialization, Trade and Enterprise Development (MoITED)	**Government Partner.** MoITED ?s mandate includes building capacity of SMEs, promotion of value addition and enhancing market access for locally manufactured goods. The project will develop synergies with MoITED through its Kenya Industry and Entrepreneurship Project (KIEP) to support the G-Business hubs. KIEP - 2019-2024 is a world bank funded (US$50 million) project that aims to increase innovation and productivity in select private sector firms in Kenya by strengthening the private sector (including startups, SMEs, incubators, accelerators, technology Bootcamp providers, etc.) through financial grants and technical assistance. Subsequently it will contribute immensely to strengthening the G- hubs.
	Kenya Forest service (KFS)	**Lead implementing Partner:** The Kenya Forest Service is a semi-autonomous government entity, established in 2007 as a part of the reform process of the forest sector. It administers forest management and protection, regulation and enforcement and training extension. The mission of KFS is to enhance conservation and sustainable management of forests and associated resources for environmental stability and socio-economic development as provided in the Forest Policy and Forest legislation. KFS will be the lead project implementing partner and will host the Project Management Unit (PMU). In this role, KFS will be responsible for overall coordination of implementation and reporting to FAO, subcontracting relevant partners for certain activities. KFS will also facilitate steering committee meetings.
	Kenya Agriculture, Livestock Research Organization (KALRO)	**Government Partner.** KALRO, in collaboration with FAO, will play a lead role in facilitating curriculum development for GAPs and CSA that will be used in the FFS. They will backstop the County Government extension in delivery and supervision of the FFS. KALRO will also lead activities related to establishing coffee nurseries, clonal gardens, and training of factory managers.

	Kenya Water Tower Agency (KWTA)	*Government Partner:* KWTA has a responsibility to coordinate and oversee the rehabilitation, conservation, protection and sustainable management of water towers in consultation with relevant Ministers and Institutions. KWTA oversees all necessary measures of the recovery and restoration of forestlands, wetlands and biodiversity hotspots in accordance with the relevant Kenya laws. KWTA will work with KFS, KARLO, WRI and other partners in promoting integrated landscape planning under component 1. It will support project implementation by availing expertise in water tower monitoring, and participation in the multi stakeholder ILM planning process.
	Kenya Wildlife Service (KWS)	*Government Partner:* As a para-government institution KWS manages the Mt Elgon National Park and the wildlife in the larger mountain ecosystem, while KFS manages forest reserves in the mountain. The county government of Bungoma is responsible for the Chepkitale National reserve in Mt Elgon while Uganda Wildlife Authority looks after wildlife resources across the bounder in Uganda. KWS will engage in the project through participation in the multi-stakeholder platforms and ILM planning process under component 1.
	Water Resources Authority (WRA)	*Government Partner:* WRA will be critical in supporting the project objectives, especially component 3, Conservation and restoration of natural habitats, which is one of WRA?s mandates. WRA normally implements catchment conservation and restoration interventions through WRUAs using the Integrated Water Resources Management (IWRM) approach. WRA will assist project implementation by helping to mobilize and sensitize community members to strengthen and/or form WRUAs, development of SCMPs as well as engaging county governments in water conservation activities affecting Mt Elgon landscape.
	Meteorological department	The Kenya Meteorological Department will provide weather and climate information that will be crucial in the implementation of component 2, in particular.
	National Environment Management Authority (NEMA)	*Government Partner.* NEMA is present in the two project counties. It will provide coordination of and guidance on environmental issues and participate in the ILM planning and policy dialogues through the multi-stakeholder platforms (component 1).

County Government	Bungoma County Government & Trans Nzoia County Government	***Government Partner (County Level):*** The county governments of Trans Nzoia and Bungoma are essentially the hosts and centres of project implementation. The project is contributing to the development priorities of the 2 counties. While the counties have and will engage throughout the project cycle it is expected that they will also provide co-financing for various activities planned in the project, incorporate restoration of their respective degraded agricultural landscapes into their development planning (CIDPs 2022-2027). Importantly, the counties will enact appropriate policies and legislative measures to safeguard biodiversity and integrity of the landscape.
	Department of Gender, youth, culture and Sports (Tourism)	The Gender Department in Bungoma and Trans Nzoia will provide oversight and guidance to the project to ensure gender mainstreaming within the project and targeting of women and youth groups. They will also identify registered women and youth groups and build their capacity to participate in the project implementation and benefit from the granting process. They will coordinate women and youth participation in leadership and decision-making platforms.
NGOs/CSOs	Rainforest Alliance (RA)	**Implementing / collaborating partner.** RA has a wealth of experience in providing support to smallholder farmers and cooperatives to go through the certification process, while strengthening their internal management and knowledge systems. Their Associate Trainer Network on standards as well as their global RA Learning Network will be leveraged. They also have well established networks with the private sector and markets for coffee. RA will participate in the project through the commodity platforms at county-level and in the multi-stakeholder platform under components 1 and 2.
	World Resource Institution (WRI)	**Implementing / collaborating partner.** WRI will support the project team with technical expertise to develop the Mt Elgon ILM plan and investment plan (component 1). They will also provide technical support in terms of data/knowledge gathering to develop the respective ILMPs at sub-county level and facilitate training of county spatial unit to ensure long-term sustainability and availability of data.

	Solidaridad	**Collaborating partner.** Solidaridad has presence in the project area and East Africa region at large. Their work on coffee, especially in promoting increased productivity through partnerships with the private sector will be relevant to this project. One of their programmes was the coffee resilience programme 2018-2020 whose aim was to improve the resilience and economic profitability of 19,400 smallholder and 1,200 medium scale farmers in Kenya, Uganda and Tanzania. Solidaridad is working with stakeholders to align conservation efforts with human socio-economic development needs and to improve the livelihoods of communities living around National Parks. Solidaridad will participate in the project through the county-level multi-stakeholder and coffee platforms.
	Mt Elgon Elephant Project & Mt Elgon Foundation	**Collaborating partner.** The Mt Elgon project, operated by the East African Wildlife Society with partners from the National Museums of Kenya, KWS and others, is working to protect the now endangered cave elephants. The project employs modern technologies such as SM &RT, to capture data and information used to define ways of alleviating human-elephant conflict. By training local wildlife scouts who are then employed in the patrols and data capture the project is hoping to do more for the local people by seeking to conserve the environment and create further alternative livelihoods in an environmentally- friendly way. Synergies with this project will be explored, particularly to seek ways of joint support to relevant CFAs whose forest user rights could include elephant habit protection. The Mt Elgon Foundation is seeking to initiate a community project with potential CSO partners in Mt Elgon. The purpose of the focus on civil society in the Mt. Elgon ecosystem work is to support CFAs and elevate their cause as agents of forest stewardship and economic development. These initiatives will be invited to participate in the project multi-stakeholder platforms.
	International Crane Foundation/ Endangered Wildlife Trust Partnership	*Implementing partner.* ICF/EWTP has many years of experience on creating awareness at local and national level on the importance of wetland ecosystems. Based on their ongoing programme in the counties, they will support interventions and multi-stakeholder approach to improve the sustainable management of wetlands ecosystems.
	East Africa Grain Council (EAGC)	*Implementing partner.* EAGC is a membership-based organization registered in Kenya as a Company Limited by Guarantee and without share capital. It will promote a structured trading system among smallholder farmers through the village aggregation centers (VACs) and Grain Trade Business Hub (G-Hubs). This is a service delivery model aimed at addressing an array of challenges faced by smallholder farmers including access to agro-inputs, services and markets.

	E4IMPACT Foundation	**Implementing / collaborating partner.** E4IMPACT is working along the coffee value chain to improve the quality component, as well as the organizational and management skills of the producer cooperatives and on the marketing component with the qualitative improvement of the final product. They will support the project mainly under component 2.
	Ogiek community	The Ogiek Community in Trans-Nzoia and Bungoma counties is a collaborating partner and project beneficiary. The Ogiek community in the Mt. Elgon landscape, through their traditional authorities and registered community-based organizations, will work with the project to mobilize members of the Ogiek community to participate and benefit from FOLUR project activities. Furthermore, the Ogiek community will be engaged though multi-stakeholder platforms and targeted small grants will be facilitated to entrepreneurs and various producer groups within the community to expand and diversify livelihoods. The Ogiek community will play an active role throughout the implementation of the project and in decision making. In accordance with the FPIC process, the Ogiek community will be continuously consulted throughout project implementation. They will also be supported to promote sustainable management of the Cheptikale Reserve.
	Farm Forestry Smallholder Producers Association of Kenya (FFSPAK)	*Collaborating partner.* Farm Forestry Smallholder Producers Association of Kenya (FFSPAK), as a national member-based body (32,070 members) and an umbrella organization based in Nairobi and working with grassroots organizations in Kenya to promote farm forestry is ideally placed to build the capacities of smallholder farm and forest producers especially on organizational development, enterprise development as well as policy and advocacy. FFSPAK also supports vulnerable FFPOs to access social protection services. FFSPAK established partnerships with local and international partners and currently has ongoing joint programmes with FAO/FFF, We Effect, UNDP and FFD. The goal of FSPAK is ?To strengthen the capacity of member organizations to enable farm forestry producers improve their livelihoods?.
Local level	WRUAs & CFAs	*Collaborating partner.* CFAs/WRUAs are community level governance structures for resource management. They are expected to co- manage landscape resources with their respective government agencies (KFA, WRA, KWS). The project will engage several of these community organizations in building their capacities and restoration work in the landscape, community policing, fire control and riparian land conservation, among others. They will be instrumental in setting up nurseries for the production of seedlings to be used in the restoration sites. The nurseries and other other ventures earmarked in the project will provide beneficial livelihood to members and their families.

	Smallholder farmers	*Beneficiary*. Smallholder coffee and maize farmers will be among the major stakeholders and beneficiaries of the project. They will be reached through the maize farmer field schools, coffee cooperatives and G-Hubs that will provide an array of services. Representatives of cooperatives and farming communities will also participate in the project through the multi-stakeholder platforms. Smallholder coffee and maize farmers will be among the major beneficiaries of the project. They will be reached through the maize farmer field schools, coffee cooperatives and G-Hubs that will provide an array of services. They are the ones to implement the activities and so are very crucial stakeholders
	Western Tree Planters Association (WETPA)	*Collaborating partner.* Western Tree Planters Association (WETPA) is a member-based organization and operates in 4 counties; Bungoma, Kakamega; Busia & Trans Nzoia which has a combined population of 5,422,171 people and suitable climate for tree farming. It has 15,399 members comprising 5,750 men, 8,538 women, 501 male youth and 614 female youth. WETPA thus has the potential of reaching many farmers engaged in small and large-scale tree farming and a huge market for timber products. Its objectives include capacity building and advisory services to its farmers, tree nursery establishment and tree growing, value addition on honey and tree seedlings, collective marketing of the products, promote financial services through village saving and loaning model, and advocacy on issues that affect agricultural production and environmental conservation
Private sector	Cooperatives	*Beneficiary*. The capacity of 26 Coffee cooperatives and 4 Maize cooperatives (G-hubs) will be enhanced through various capacity building initiatives. They will be expected to improve both input and output service delivery to their members. They will implement the various activities meant to attain certification, improve coffee quality and access to markets. These cooperatives will be the entry point into the farming communities.
	Micro-finance institutions (MFIs)	*Financial service providers.* Equity Bank, Faulu Bank, Kenya Women MicroFinance Bank, Rafiki MicroFinance Bank amongst other banks will be approached by the cooperatives and G-Hubs to explore loan check-off payment arrangements. This enables farmers to get access to finance / loans that are paid off upon selling their produce through the cooperatives. The cooperatives act as guarantors in this arrangement.
	Service providers	*Private sector Input service providers*. One acre Fund and Apollo Agriculture will be linked to the Cooperatives and G-Hubs which shall aggregate the demands of specific inputs from the smallholder farmers. Sourcing of the agro inputs (e.g. Seed & Fertilizers) in bulk enables the cooperative and farmers to benefit from economies of scale and also can also order blended fertilizers recommended for their specific regions
	ACR Ltd.	*Private sector-Miller/Roaster/Exporter*: This company buys and exports coffee. It also supports coffee farmers to acquire certification and generally improve their management practices. Since it is sourcing some of its coffee from Bungoma county, it will play a collaborative role in linking coffee farmers to markets.

	Kahawa Bora/Sustainability ltd	**_Private sector-Miller/Roaster/Exporter_**: The company is involved in milling, roasting and exporting coffee. It also supports coffee farmers to meet market requirements. It could play a big role in supporting coffee farmers in the project are to attain the market standards and therefore access better markets
	KCCE Ltd.	**_Private sector-Miller/Marketing Agent/Exporter_**: Kenya Cooperative Coffee Exporters mills and exports coffee mainly through the direct window. Through collaboration with the project implementers it could support the farmers to access a better market for their coffee.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

Included in the above and implementation arrangements section.

Select what role civil society will play in the project:

Consulted only; No

Member of Advisory Body; Contractor; No

Co-financier; Yes

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor; Yes

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

264. The preparation of the project document included a wide consultation on gender issues to ensure the GEF-7 project has integrated gender considerations in its development. Gender equality and women?s empowerment issues in the environment were consistently discussed and made clear that they cannot be overlooked. Therefore, gender information gathered in the field visit during the PPG in both Tranzoia and Bungoma counties has informed gender mainstreaming of the project document. This is also in line with FAO policy on Gender Equality (2020-2030) and Goal 5 of the UN Sustainable Development Goals (SDG) on achievement of gender equality and women empowerment.

265. According to Kenya's population census of 2019, women make up 50.3 percent which means that they represent a potentially large share of the beneficiaries of the GEF Projects, directly or indirectly benefiting from actions aimed at improved natural resource management. They also are major actors in

the restoration work on common lands but too often their roles in restoring and creating added value are not acknowledged formally to enable equitable access rights and benefits from the restored resources. Discussions with women during the field visit to Bungoma and Trans Nzoia counties confirmed that their contribution to restoration work is not formerly recognized.

266. The FAO County Gender Assessment of the Agriculture and Rural Sector (2017) affirms the above observations that indeed culturally ordained prescriptions of natural resource distribution, particularly land, water and other environmental resources continue to disadvantage women and limit the realization of their full potential. The report further states that in Kenya, women comprise between 60 and 80 percent of all agricultural labour, mainly in production . Women?s labour often goes unnoticed and unquantified, as it is often being informal labour and in the less profitable aspects of agricultural value chains (ibid). Women are also often burdened by domestic chores and have lower literacy levels, limited access to land and capital and lack adequate skills and confidence to negotiate power in agricultural enterprises. Compared to men, women hardly maximize their potential in agriculture due to these challenges.

267. The Constitution of Kenya creates a platform for gender equality and non-discrimination. It also provides a fresh impetus for a national policy to chart a roadmap for the attainment of the constitutional provisions. Article 10 of the Constitution is on the National Values and Principles of governance. It highlights such principles as equality, equity, inclusiveness and non-discrimination. These principles provide an anchorage for gender equality. To realize these ideals, the Constitution in Article 27 (6) requires the government to take legislative and other measures including affirmative action to redress disadvantages suffered by individuals and groups because of past discrimination. Article 27 (8) requires that not more than two thirds of the members of elective or appointive bodies are of the same gender.

268. The State Department for Gender in the Ministry of Public Service, Youth and Gender. The State Department for Gender is responsible for promoting gender equality and empowerment of women in Kenya. One of its key responsibilities is to promote the development and review of gender policies and legislation. The Department has developed this National Gender and Development Policy as a review of the Gender Policy adopted by the cabinet in 2000. The policy outlines the national agenda for gender equality and how Kenya intends to realise these ideals. It details the overarching principles, which will be adopted and integrated into the National and County Government sectoral policies, practices and programmes and by all state and non-state actors.

269. The National Policy on Gender and Development

The policy outlines the national agenda for gender equality and how Kenya intends to realise these ideals. It details the overarching principles, which will be adopted and integrated into the National and County Government sectoral policies, practices and programmes and by all state and non-state actors. Access to and control over environmental resources is gender biased. Men are the main actors in the management of renewable and non-renewable natural resources such as forests, wildlife, minerals and natural gas. Women in developing countries such as Kenya are particularly vulnerable to climate change because they are highly dependent on local natural resources for their livelihood. Women charged with securing water, food and fuel for cooking and heating face the greatest challenges. They also experience unequal access to resources and decision-making processes over the resources, with limited mobility in rural areas. It is thus important to identify gender-sensitive strategies that respond to

these crises for women. Research indicates that people?s limited access to resources, restricted rights and muted voice in shaping decisions makes them highly vulnerable to climate change.[1]

270. The policy on gender and development highlights the followings concerns to be addressed:

a)   Have women well represented in decision-making processes over the environment and natural resources;

b)   Factor women?s input into climate change adaptation and mitigation strategies;

c)   Capacity build women on the negative effects of deforestation to be able to contribute towards sustainable natural resource management and climate change mitigation and adaptation;

d)   Reduce gender disparity in accessing natural resources;

e)   Provide affordable clean water to reduce health risks related to poor quality of water; and,

f)   Provide gender-disaggregated data on the impacts of environmental and natural resources? degradation and climate change.

271. Gender mainstreaming strategy and Action plan for the environment and natural resources in Kenya (2015 ? 2018):

Though outdated, the gender mainstreaming strategy and action plan for environment and natural resources in Kenya was grounded on the premise that the empowerment of women and men (gender equality) is at the core of the achievement of Vision 2030 and promoting sustainable development. The empowerment of women and men would promote equality of access, use and benefit from the country?s rich environment and natural resources, thus reducing food insufficiency, poverty and sexual and other forms of gender-based violence and conflict across the country. Because the focus of the strategy has not yet been achieved, it is important therefore to have the strategy reviewed to guide the county governments in mainstreaming gender in GEF-7 project.

272. The above justifies the need to mainstream gender into GEF-7 programming in Bungoma and Tranzoia counties and address the gender challenges which were noted during the field visits to the counties. The challenges include:

i. Women in Bungoma and Trans Nzoia and more so the women from the indigenous group in those counties have a differentiated dependence on forests and natural forests from that of men. Their dependence is more driven by the need for survival of their families and on their household responsibilities and the gender division of labour. Women need the forest more as they have less access to income earning opportunities and employment compared to men. Women are also more localized in perspective due to constraints on their physical mobility due to domestic responsibilities and security considerations, as well as exclusion from the critical platforms of leadership. While they have primary responsibility for fuel, food and family sustenance, they face restricted access to land and income opportunities. The Cheptais sub-county next to mount Elgon and bordering Uganda is said to have many widows due to conflicts which claimed the lives of many men has made them landless and more poverty prone and doubly disadvantaged compared to those in other households.

a.   Women are the main gatherers of fuel, food and water, and thus degraded forests increase women?s working day and labour burden

b.   Degraded forests affect household nutrition with depletion of forest foods and traditional vegetables, fruits such as berries, and honey when bees lack their source of nectar.

c.   There is reduced income for women from herbs used to extract traditional medicines

ii. Restricted participation of women in decision-making ? we learned that among the CFAs there is a call to adhere to a third representation in leadership, and though a few CFAs adhere to this rule majority are way below 30 percent representation and even where there are women in the leadership, they have little or no voice whatsoever and one has to call out to them to speak. This shows that majority of women lack leadership capacity

iii. There is great differentiated knowledge on natural resources management between men and women because most meetings and training on NRM are attended by men. During discussions with community members, one community member said that forest matters are culturally viewed as the domain of men.

iv. Limited ownership of large maize and coffee farms. Large farms of coffee and maize in Bungoma and Trans Nzoia counties are largely owned and controlled by men because of the traditional belief that land ownership is controlled by the male members of the households since they own the title deeds and the land is in their names. Again every large-scale crop is majorly controlled by men because women own small pieces of land and are many times involved in small scale production.

v. Lack of access to markets ? women produce the baskets, vegetables, honey, etc. in small quantities and many times they have to accumulate before they take their products to markets. The distance to the markets for some of the women is a challenge and they have to rely on transportation by the youth in their motorbikes.

vi. Insufficient income for women to meet their competing needs and priorities and especially for the widowed women.

273. Actions to address the above identified challenges have been integrated in the project design and gender action plan developed to address the issues.

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[1] Human Development Report, 2013

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

274. The project will promote an integrated landscape management approach and as such private sector form a critical stakeholder group to actively engage with during planning, implementation and monitoring. At the County level the existing multi-stakeholder platforms such as the County Environmental Committees have so far had limited representation and participation of the private sector. The project will promote inclusive multi-stakeholder platforms between the targeted counties and within and ensure representation of cooperatives, companies and other key value chain actors. At the County level the project also aims to bring all coffee value chain actors together under a county coffee platform to discuss and engage on ways to advance sustainable and inclusive coffee value chain while preserving the lands, biodiversity and ecosystems.

275. Under the second component the project will also engage with private sector to facilitate improved access to services, information, inputs and markets through the cooperatives and business hubs. There are many private companies supporting already smallholder farmers to improve their capacity and promote better access to markets and the project will build on those.

276. Under the third component the project will also leverage the experience of certain private companies which have already supported restoration activities in the project area such as Equity Bank. The project will also further build on existing initiatives such as the Adopt a Forest programme where private companies are engaged to support conservation and restoration activities on the ground. ????

Under component 4, the proposed platform will include private sector and trade representatives (see table below) from Kenya and Uganda so as to promote discussion on policy and existing barriers with a view to address these and provide incentives for fair and sustainable coffee and maize in Mt Elgon.

Role in the value Chain	Private sector organization	Potential involvement
Seed Companies	**Kenya Seed Company ltd,** East African Seed Co, Ltd. Western Seed.	Suppliers of certified seeds. They often support the setting up of demo farms to show case the potential of their seed varieties and in the process also provide extension services.
Agriculture extension and Market access Service provider	Safaricom DigiFarm	DigiFarm is a FREE Safaricom service that offers farmers convenient, one-stop access to quality farm inputs at discounted prices, input loans, learning content on farming as well as access to market. Other value-add services provided through DigiFarm include insurance yield cover and extension services through remote agronomists located at the DigiFarm call center or on ground DigiFarm Village Advisors (DVA).

Aggregators	Nzoia Grains Cooperatives. It is an amalgamation of Maize Common Interest Groups (CIGs) marketing groups from across the county.	The Cooperative will support in aggregation and provide a good opportunity for value addition
	Chemungo grain grower?s society.

In the past have aggregated and supplied world food programme (WFP) with grain. The last order was 5,000 of 50Kgs bags of cereals was in December 2021. | Aggregators of grain in the county. |
Input distributors	Apollo Agriculture	Apollo Agriculture partners with agro-dealers at the community level. The Agro-dealers distributes the apollo fertilizer, but allowed to sell seed from whatever source; mainly maize. Apollo has scouts who map out the parcels of land for farmers seeking inputs on credit, this ensures farmers get the appropriate /sufficient inputs; however, most extension services is provided through phone.
	One Acre fund	One acre fund offers a complete bundle of services, using a market-based model. Support **f**armers access receive high-quality seeds and fertilizer on credit, and offer a flexible repayment system that allows farmers to pay back their loans in any amount throughout the loan term.
Soil testing Service providers	Cropnut	Soil fertility and crop management company that offers soil testing. Has been used widely in Bungoma and Trans Nzoia Counties.
Insurance service providers	UAP Insurance	Provides cover for commercial crops such as; maize, barley and wheat. The insurance cover protects farmers against the loss of their crops due to natural disasters.
Processors	Cereal millers? members of East African Grain Council (EAGC). eg- **Unga Ltd, Rafiki Millers Ltd, Pembe Flour Mills, Grain Bulk Handlers**	These large-scale millers who source grain from the region, and will be linked to the producer groups through the warehouse receipt systems with the support of EAGC.

	Trans Nzoia County Government (CEC for Trade	Trade representatives will lead the dialogue on aspects of trade policy, trade barriers, sustainability practices, etc
Trade Representatives	Bungoma County Government (CEC for Trade)	
	National Government Ministry of Trade Representative	
	Government of Uganda Trade Counter parts	

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

? Section A: Risks <u>to the project</u>

277. Project risks have been identified and analyzed during the preparation phase and mitigation measures have been incorporated into the design of the project. The Project Steering Committee (PSC) will be responsible for the management of such risks as well as the effective implementation of mitigation measures. The PSC will also be responsible for monitoring the effectiveness of mitigation measures and adjusting mitigation strategies as needed, and to identify and manage any new risks that were not identified during project development, in collaboration with project partners. The main risks, their ranking and mitigation measures are presented in the following table:

Table 9. Risk matrix

Description of risk	Impact[1]	Probability of occurance3	Mitigation actions	Responsible party
Political risks				

Limited national government support	**High:** Key approaches promoted by the project, such as ILM, inclusive and effective VC development require strong government support	**Low**	The PSC will be chaired by Ministry of Environment and Forestry and co-chaired by MALFC. Also KFS and KALRO will be key institutions to drive the project interventions and actively use best practices from other landscapes based on own expertise/experience. The project will also interact with the national TWG/taskforce on Forest and Landscape Restoration to support implementation of FOLAREP.	National Project Steering Committee and Ministries of Environment, Agriculture and Trade
Limited County government support	**High:** After devolution, counties are in the driving seat to guide sustainable development, including spatial planning	**Low**	From the consultations throughout the PPG, the project has ensured ownership of both county governments through the CECs. Both counties have highlighted the need for landscape management and restoration within their CIDPs and the project will ensure capacity building of technical decentralized staff as well as raise awareness at the political level to ensure long-term commitments. Both targeted commodities/value chains are also prioritized in the CIDPs	PMU, County Project Management Unit and Operational Partners

Social risks				
Limited buy-in from local communities on integrated landscape approach	**High**	**Medium**	The project will engage openly and transparent from the start with local communities, indigenous peoples and smallholders to raise awareness on ILM and provide capacity building to ensure effective participation in the planning and implementation phases for ILM The local communities will be supported to actively contribute and representatives will be part of the multi-stakeholder platforms guiding the process. The process will pay specific attention to working with traditional leaders and women/youth which have been marginalized in the past when it comes to landscape planning and implementation. The project will work with existing community-based structure, such as CFAs, WRUAs and Council of Elders of the Ogiek community to ensure their priorities are identified and supported.	PMU and Operational Partners, County and sub-county government, Indigenous Peoples

Land conflict	High	High certain lands are currently under court case investigation	The project will promote and undertake a transparent social engagement and communication pathway to ensure everyone has full understanding and ownership of proposed project interventions.	PMU, operational partners, county and sub-county government, Ministry of Land, local community organizations, indigenous peoples
Security risk	High	Low	The project area has been stable for the past 10 years and through transparent communication by and for all stakeholder?s ownership is ensured. The project is anchored within the decentralized government which is constantly monitoring possible security threats.	PMU, County security committees, operational partners
Fragility of global price/market (coffee/maize)	High	Medium	The project will promote a landscape approach which allows for sustainable diversification of livelihoods as well as promote value addition within the targeted value chains. Through better access to market information, smallholder farmers will also be better informed for decision-making.	PMU, Operational partners, private sector

Community fatigue	**Medium**	**Low**	The project area has not received as much investments and projects as other areas in Kenya. The project will promote transparent engagement and communication with local communities to ensure the project responds to their needs. The project will also build on large ongoing programmes (NARIGP) to make use of existing mechanisms/ platforms to provide support.	PMU, counties and sub-counties, operational partners, community-based organizations
Disruption during national elections	**Medium**	**Low**	In 2022 national elections are planned and the project will ensure to build on local existing implementation structures (operational and technical) to avoid disturbance/delays that can be caused by election disruption	PMU, counties
Limited technological awareness	**High**	**Low**	The project will be anchored in community-based organizations and adapt training and capacity building to the needs and demands of these organizations. Specific training will be provided on IT to facilitate monitoring and timely data collection and information dissemination. The project will also communicate using local accepted channels.	PMU, operational partners, Counties

Environmental risks				
Climate change risk	**High**	**High**	The project will use the latest information and technologies/ practices available to promote climate-smart agricultural and processing practices. Through the SLM and restoration practices, climate change impacts would also be reduced. Recent study also indicated medium vulnerability of the Mount Elgon Water Tower compared to other Water Towers. Increases in pests/diseases can also be triggered by climate change (FAW, locusts), and the PMU and technical partners will ensure the adoption of context-specific measures to mitigate these risks.	PMU, OPs, Ministries, private sector, Meteorological Department
The COVID-19 crisis extends over time and has operational impacts on the implementation and institutional/governance arrangements of the project. This also can result in both higher costs for inputs as well as increased demand.	**High**	**Medium**	The project will follow national measures and guidelines put in place for health security. It will be the responsibility of the PMU to provide updates and inform local stakeholders.	PSC, PMU, operational partners, counties
Project Management & Delivery risks				

Co-financing does not materialize.	**Low**	**Medium**	The project has identified diverse sources of co-financing and partners. The PMU will also continuously look for additional co-financing for the project to further mitigate the risk of non-compliance with co-financing agreements,, especially from the private sector as they are willing to invest when sufficient quality and quantity coffee/maize is being produced.	PMU, operational partners, County and sub-county governments
Complexity of partners implementation in the project area	**Medium**	**Low**	The PSC and County management committee will be represented by all key stakeholders relevant to the landscape and the PMU will also be closely supporting both counties in terms of coordination and knowledge sharing. At the start of the project all stakeholders will be also involved in the project engagement and knowledge sharing strategy development.	PSC, PMU, counties, operational partners.

Climate risk screening and recommendations

278. The project has undertaken a climate risk screening during the project design phase and the risks, vulnerabilities and corresponding management actions were identified and incorporated into the project. The climate risk screening was classified as high and as such several measures were identified to mitigate these risks and ensure enhanced adaptive risk of the project stakeholders.

Table 10. Climate risk screening

Recommendation	How it has been incorporated in design
Component 1 Under outcome 1.1, the project could further explore the possibility of integrating tailored climate services along the food value chains. For the coffee value chain, different climate information services can be provided to end users: precipitation, wind and relative humidity. An early warning system for coffee farmers could monitor the risks of coffee rusts based on air temperature, humidity and precipitation. Similar approach could be followed along the maize value chain, where farmers could benefit from climate services (rainfall, temperature, wind forecasts, real-time information on pest and disease outbreaks) to manage their agricultural activities (land preparation, crop calendars, time of fertilizer, herbicide and pesticide application etc.)	Through component 2, the project will support the facilitation of access to information and data from a wide variety of actors to improve productivity at farm level through the Business Hubs and coffee cooperatives. The project will support farmer mobilization so they can get access to required services at a better price.

Component 2

Under component 2, particularly for outcome 2.1.2 ?promote sustainable coffee and maize production? we propose the following strategies that aim at increasing agricultural productivity by supporting equitable increase in income, food security and development; adapt and build resilience to climate change; develop opportunities to reduce GHG emission from agriculture. The project could embrace some of the following climate smart agricultural (CSA) strategies for maize and coffee:

Maize: improving planting techniques (including drilling), selection of most performant maize cultivars (i.e. hybrid pioneer 3522 is performant in tropical areas), water management techniques (using tensiometers), laser land levelling (to better use water resources and reduce nutrient losses), residue management, N-fixation crops (association of maize with legumes, e.g. beans).

Coffee: micro-irrigation at early growing stages to make sure that crop water requirements are satisfied, heat-tolerant varieties (coffee Robusta variety seems to tolerate heat-stress conditions better than Arabica), improving drying techniques (preventing grain exposure to sunlight), water and soil conservation practices (mulching and agroforestry).

The training to be developed and implemented to smallholder farmers will include Climate Smart Agriculture and this includes the promotion of improved varieties, and the promotion of sustainable agronomic practices relevant to changing climate. Climate information services will also be part of the training.

The cooperatives and their members will also be trained on improved drying techniques as well as resilient agroforestry practices to ensure resilience and optimal productivity within the landscape. The utilization of shade-trees is one of the options to be promoted in collaboration with the Coffee Research Institute.

In addition, the project will build on and learn from the going Kenya National Agricultural Insurance Program initiatives that is in partnership with the private service providers and promotes Crop insurance in Bungoma. The farmers through the hubs and cooperatives will be exposed and linked to the providers of these services.

Component 3

Ecological habitat restoration is an attractive approach to foster carbon sequestration in project areas. However, regeneration, reforestation and afforestation practices in project areas need to be in line with the agroclimatic conditions of Western Kenya. The World Agroforestry Center for Eastern Africa has identified the following trees, among others, that adapt well to the agroclimatic conditions in the project area:

- *Acacia abyssinica*: drought tolerant tree that grows well in degraded land.

- *Acacia brevispic*: drought tolerant tree that provides firewood, fodder and can be used as live fences.

- *Berchemia discolor:* tends to be riparian in arid areas and be used as firewood, charcoal and edible fruit.

- *Bridelia micrantha*: is adapted to humid and sub-humid areas of East Africa and is particularly widespread in Western Kenya at altitudes ranging from 0-2000m.a.s.l.

- *Buddleja polystachia*: is found in central and mountainous areas of Kenya (1000 to 3000 m.a.s.l) and has multiple uses, including firewood, charcoal, timber, fodder and live fences.

The project will build on local knowledge as well as local expertise from institutions such as KFS and WRA to identify most suitable trees and plants for restoring degraded landscape site specific to the Mt. Elgon context. This will depend on the local context and scope. Both indigenous trees will be used for natural forest enrichment planting as well as fruit trees to promote restoration of degraded agricultural lands. KEFRI?s knowledge will also be leveraged to identify most suitable species for live fencing and promotion of pollinator friendly trees/plants to enhance biodiversity. The suggested list will also be used during discussion and identification with local stakeholders.

In the agricultural landscapes, in addition to the promotion of fruit tree species, the project will bank on the long experience of promoting agroforestry tree species in the wider Mt. Elgon landscape, from project partners such as Vi-Agroforestry and Sollidaridad. Tree species successfully promoted includes both exotic and indigenous species such as:

Sesbania sesban; Cordia africana; Grevillea Robusta; Gliricidia sepium; Calliandra calothyrsus; Morus alba; Tephrosia vogelli; Cajanus cajan; Albizia chinensis; Trema orientalis; Ficus natalensis; Polyscias fulva; Maesopsis eminii; Croton macrostachyus;

Component 4	This is noted, and the project will look at county level how synergies can be promoted.
Cross-sectional coordination, collaboration and communication could be strengthened by closely working with the Climate Prediction and Application Centre (IGAD). The functions of IGAD include: 1) climate monitoring, data management and climatology, 2) climate diagnostics, prediction and early warning, 3) climate applications, 4) capacity building, 5) environmental monitoring, 6) disaster risk management, 7) dissemination and awareness raising, 8) applied research.	

Project strategy towards COVID-19 risk:

279. The immediate impact of the COVID-19 pandemic was the collapse of the input and output supply chain due to imposed lockdowns. This resulted in the inability of farmers, farm labourers, farm service providers, extension officers, input suppliers, processors and other various actors in the food system to perform their tasks. These constraints may manifest themselves in the failure to plant crops in a timely manner, or to use the optimal quality and quantities of inputs needed (such as seeds, fertilizers, pesticides), to carry out varied cultural practices, and harvest and post-harvest activities. The effect of this is that the expected crop produce is not readily available to those who need it where and when it is needed. In general, the effects were more severe on the vulnerable smallholder farmers.

280. The COVID-19 pandemic also affected the conservation work as the CFAs and WRUAs could not be able to meet to undertake any restoration work. The tree seedlings sales went down and resulted in collapse of some tree nurseries. There were also reported indices of poaching and illegal logging of trees in the forest.

281. However, despite its negative effects, the COVID-19 pandemic also provided an opportunity for innovation and use of traditional knowledge systems. There was also a reported increased demand of traditional vegetables and fruits, which provided good price incentives for farmers. To mitigate the effects of the pandemic and other related disasters, the project will build on these strategies by working closely with county governments and partners especially in exploring the following:

> ? Investing in strategic storage facilities to mitigate disruptions of critical value chains and exemption of movement restrictions to essential persons, goods and services to ensure no crop production season is lost

> ? Adopting financial support measures for smallholder farmers, for example deferring agriculture credit payments, reducing and/or waiving interest rates on loans and price control of essential inputs.

> ? Utilizing digital technology to provide real-time reliable information to farmers and traders on prices and market demands, and supporting farmers for matching supply with demand to boost smallholders? connection to urban and local markets and processors

> ? Strengthening capacity to respond quickly and efficiently to crises by capitalizing on monitoring and early intervention through innovation, improved data management, analysis and forecasting, efficient information and knowledge exchange and effective contingency planning.

282. The COVID-19 pandemic will continue, as such it will force the PMU and the partners to define and adopt alternative measures regarding (i) the collection of information and consultations with the stakeholders involved, (ii) the organization of teamwork, working meetings, workshops, training, and visits to / from other countries involved in the programme, (iii) the provision of technical assistance from national and international experts, and (iv) the community-based participation and relationships among members of local communities, and among members of producer organizations, market-based platforms, etc. In this sense, the PMU and the partners will promote the utilization of online systems for meetings, ensuring a minimum representation of all interested stakeholder groups. To the extent possible and depending on changes in the GoM regulations on limitations on the number of people who can meet and on the movement of people within / outside the country and within / outside the target regions, the project will try to group the maximum number of people legally possible in a common space, to minimize the problems derived from virtual meetings with multiple people. The project team will request the respect of all legal measures established by the government when people gather, such as a mask, hand washing, safety distance, ventilation of the meeting space, maximum meeting time, etc.

283. In the case of people with lower literacy level, the PMU, and partner organizations, will develop other tools such as the production of short very practical videos/pamphlets with images that describe how to implement different FLR/SLM/SFM and sustainable value chain interventions.

284. The project team and partners will also raise awareness among local community members, producers? organizations participating in the learning groups, and VC platform members, about COVID-19 risks and the official measures established to prevent transmission of the virus. Trainers and facilitators will agree with practitioners about meeting and coworking opportunities that meet the governmental COVID-19 protocols. Practitioners will benefit from the alternative learning and technical support defined in the previous point.

? Section B: Environmental and Social risks <u>from the project</u>.

285. The project has triggered the following safeguards:

- ESS2: The project will be implemented mainly in the buffer zone of protected area within the Mt. Elgon Water Tower.

- ESS 3: The project will support smallholder farmers to increase the productivity and the quality for maize and coffee production. This will involve the adoption of improved varieties and as such ESS 3 was triggered.

- ESS 5: The project will support smallholder farmers to adopt climate-smart good agricultural practices, and this could entail the utilization of pesticides and this triggers this ESS 5. The project will promote a landscape approach, minimizing the impact on soil biodiversity and as such propose Integrated Pest Management system.

- ESS 9: Within the project target area, Indigenous Peoples are present (Ogiek community) and as such the ESS 9 was triggered. In one of the project areas, there is an ongoing conflict between the IP community and the government, and the project will follow a transparent FPIC approach to ensure their concerns and needs can be met through targeted project interventions.

Environmental and Social Risk Classification: low risk   moderate risk X   high risk

Table 11. Environmental and Social Risks

Risk Identified	Risk category	Mitigation measures	Indicators	Timeline

ESS 2: Biodiversity, Ecosystems and Natural Habitats	Low	The project will work mainly in the buffer zones of the protected areas, but under the first component will engage all landscape stakeholders (including PA managers) to jointly discuss and develop an Ecosystem Management Plan for Mt Elgon. The establishment of these multi-stakeholder platforms will provide the space to interact and discuss cross-cutting issues such as wildlife and biodiversity. The project will also provide capacity building of local Community Forest Associations to develop/revise their Participatory Forest Management Plans and implement restoration interventions within the forest reserves. With the support of technical institutions (KFS, KEFRI, KWS) and experts, localized endemic species will be used to restore indigenous forests. The project will also support the Ogiek community to develop sustainable management plan for the Cheptikale Reserve. Under the third component the interlinkage between the protected areas and the production systems beyond will also be highlighted through the identification of possible sustainable financing schemes to promote conservation and restoration. Under the fourth component the project will support knowledge sharing between Kenya and Uganda through yearly	# of sustainable management plans developed/revised by community-groups # stakeholders participating in capacity strengthening for enhanced and sustainable management of the landscapes (buffer zone and PA)	first two years of the projec

ESS 3: Plant Genetic Resources for Food and Agriculture	Low	As part of the integrated landscape management approach, the project will promote sustainable agricultural intensification through the diversification of agricultural production. The focus will be on disease resistant and climate adaptive seedlings and varieties to increase productivity/tree for coffee and productivity/hectare for maize. The focus will also promote those local adapted species to promote agroforestry within the coffee and maize production systems in order to repair soil fertility and biodiversity. The project will also promote the development of nurseries at the cooperative and Community-level to support the restoration of degraded agricultural and forest lands. The species and seedlings to be selected will follow a transparent process owned by local communities and technically backstopped by relevant institutions and partners to enhance the capacity. The project will also promote community exchange visits to enhance knowledge on genetic diversity and potential usage of under-utilized species. Based on past projects, possible intervention would be the capacity strengthening on indigenous vegetable value chain which will improve soil conservation and food security while improving local livelihoods.	# nurseries established and number of indigenous trees planted by community groups # of farmers accessing improved varieties (coffee/maize)	year 2-5

| ESS 5: Pest And Pesticide Management | Medium | The project will focus on promoting an agro-ecological approach to support SLM/SFM/FLR practices within the targeted landscapes. The project will identify and assess the needs/options for the specific landscapes and production systems and in collaboration with technical institutions/NGOs will develop and promote training on specific topics.

Several approaches will be followed, such as Farmer Field School, Lead Farmer training and public extension support to enhance the capacities of local farmers. The project will prioritize biological control of pests and diseases to the extent possible taking into consideration traditional knowledge and experience. In case pesticides are required, procurement and usage will follow FAO/WHO International Code of Conduct as well adhere to national policies/guidelines in place to ensure it can be promoted safely without compromising the health of the ecosystem and the local people. | # of farmers trained on IPM | year 1-5 |

| ESS 9: Indigenous Peoples and Cultural Heritage | High | During PPG, through desk review and consultation certain key issues were identified (court case pending with Government, mistrust of government institutions, presence of Ogiek CFA in one project area) and opportunities to work together (Council of Elders).

Previous and on-going court cases are related to past resettlement by Kenya Forest Service of Ogiek?s in mainly Mau forest but also Elgon forest. Since then, Kenya Forest Service has developed a new approach for engagement of local communities and indigenous people in the management of forest in Kenya. This approach is based on the human right based approach and included long and detailed community sensitization and consultation regarding the role and right of local communities in the management of forests, the formation of community forest associations, participatory forest management plans and forest management agreements. Local ad-hoc committees and planning teams are nominated by the local communities and indigenous peoples to represent the community in the negotiations with Kenya Forest Service. This approach has been implemented in Kirisia forest, Samburu County, Kenya, through a GEF (5th replenishment cycle) funded project implemented by FAO in collaboration with Kenya Forest Service.

During the third field mission, the PPG team met with representatives of the Ogiek Indigensous Peoples | # of meetings with Ogiek community members

# of Ogiek community members directly benefiting from project interventions | year 1-5 | |

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

?   6.a Institutional arrangements for project implementation.

286. At the funding level, the **Food and Agriculture Organization of the United Nations (FAO)** will be the GEF Implementing Agency, and as such, will provide project cycle management services as established in the GEF Policy. FAO will be responsible for providing oversight, technical backstopping and supervision of project implementation to ensure that the project is being carried out in accordance with agreed standards and requirements. Technical backstopping will be provided by FAO in coordination with the National Project Steering Committee. As GEF Implementing Agency, FAO will:

?   Administrate funds from GEF in accordance with the rules and procedures of FAO;
?   Oversee project implementation in accordance with the project document, work plans, budgets, and the rules and procedures of FAO;

?   Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned;

?   Conduct at least one supervision mission per year; and

?   Report to the GEF Secretariat and the GEF Evaluation Office, through the annual Project Implementation Review, on project progress and provide financial reports to the GEF Trustee.

Based on recommendations of Environmental and Social Safeguards and Free Prior and Informed Consent (FPIC) assessments done for the Indigenous Communities in Mt. Elgon Ecosystem, the GEF Operational Focal Point has requested FAO to support direct execution of a few activities. The assessments identified mistrust between indigenous communities and the lead national executing agencies, an issue that poses a potential risk for direct implementation by the national agencies. The activities include:

> ?   Support to national executing agencies to mainstream Environmental and Social Safeguards policy;

> ?   Development of IP knowledge products and protect related products for the local FM; and,

> ?   Micro-grants for sustainable nature-based livelihoods of local communities including the Chepkitale Ogiek Community of the Mt. Elgon Ecosystem.

287. At the national level, the Ministry of Environment and Forest (MEF) and the Ministry of Agriculture, Livestock, Fisheries and Co-operatives (MALFC) will be the main partners, providing strategic leadership to the implementation of the project, working closely with the PMU and the operational partners. Both MEF and MALFC will support multi-stakeholder dialogues at the national level, ensure timely delivery of technical and co-financing inputs to the projects, and coordination with relevant ongoing programs and projects.

It should be noted that the identified Operational Partner(s) or OP, results to be implemented by the OP and budgets to be transferred to the OP are non-binding and may change due to FAO internal partnership and

National Project Steering Committee (PSC)

288. A multi-stakeholder PSC will be constituted and co-chaired by MEF and MALFC and be comprised of representatives from MEF, MALFC, representatives of all implementing partners (KFS, KALRO, WRA, KWTA) including NGOs and CSOs (including Indigenous Peoples representative), GEF focal point, LDN focal point, representatives of both Counties, representatives of co-financing projects and the FAO. The members of the PSC will each take on the role of a Focal Point for the project in their respective agencies. Hence, the project will have a Focal Point in each concerned institution. As Focal Points in their agency, the concerned PSC members will: (i) Technically oversee activities in their sector; (ii) Ensure a fluid two-way exchange of information and knowledge between their agency and the project; (iii) Facilitate coordination and links between the project activities and work plans of their agency; and (iv) Facilitate the provision of co-financing to the project.

289. The PSC will meet at least once every year to ensure: i) Oversight and assurance of technical quality of outputs; ii) Close linkages between the project and other ongoing projects and programmes Approval of the six-monthly Project Progress and Financial Reports and Project Annual Work Plans and Budget; vi) Making by consensus, management decisions when guidance is required by the National Project Coordinator of the PMU. The National Project Coordinator (see below) will be the Secretary to the PSC.

County Project Management Committees (CPMC)

290. Each of the two counties will establish a County Project Management Committee to oversee project implementation and facilitate coordination and mainstreaming of project objectives into county level policies and plans (County Integrated Development Plans). The CPMC shall include representation from the County Environment Committees (CECs) for Environment and Agriculture, representatives of targeted sub-counties, local NGOs and CSOs and representatives of smallholder farmers, women and youth associations and indigenous peoples.

Sub-county Technical Committee (LTC)

291. Each sub-county will establish a sub-county technical committee to guide the development of the ILM plans and to ensure proposed project interventions are technically sound. Membership for these committees will be drawn from existing technical institutions at local level with required expertise from other stakeholders, such as NGOs, private sector and Civil Society. The existing agriculture and trade and cooperative officers will be as well members.

Operational Partners

292. Based on consultations and an independent fiduciary capacity assessment conducted during project preparation, the Kenya Forest Service (KFS) and Kenya Agriculture Livestock Research Organization (KALRO) will serve as the Operational Partners (OPs) for the project. Roles and responsibilities of KFS, KALRO and FAO shall be described in detail in the Operational Partner Agreement (OPA) to be concluded within 3 months of project approval by the GEF. In summary, KFS and KALRO will carry out the following tasks:

(i)   Project planning, coordination, management: Overseeing the day-to-day management and implementation of the project, including the issuing and managing contracts with co-executing partners, overseeing and ensuring delivery of their respective outputs. Providing technical support to ensure quality implementation of the project.

(ii)   Project monitoring, evaluation, and reporting: Timely, comprehensive, and evidence-based project reporting, in line with the project M&E framework and requirements.

(iii)   Risk management: Monitoring risks, including environmental and social risks, identified during project preparation, identifying new risks and undertaking appropriate mitigation actions.

(iv)   Procurement: Procurement of goods and services, including recruitment of experts, in line with the OPA and work plans and budgets approved by the NPSC.

(v)   Financial Management: Financial management, including overseeing financial expenditures against project budgets and submission of financial statements to FAO.

293. KFS will have the overall executing and technical responsibility for the project. To fulfil this role, KFS shall establish a National Project Management Unit, consisting of the following full-time staff: (1) National Project Coordinator (NPC), (2) Finance/Procurement officer, (3) Knowledge and M&E Officer and (4) project assistant. Their draft ToR can be found in annex Q. Technical support will be provided through contracts with partners or part-time individual experts in these areas: (1) Policy and institutional capacity; (2) Spatial analysis and tools (including ROAM); (3) Coffee value chain; (4) Climate-smart Agriculture; and (5) private sector engagement. Additionally, KFS, KALRO and County-level Ministries will assign technical teams to support the implementation of the project (co-financed secondment).

294. The overall project implementation structure is depicted below (Figure 19):
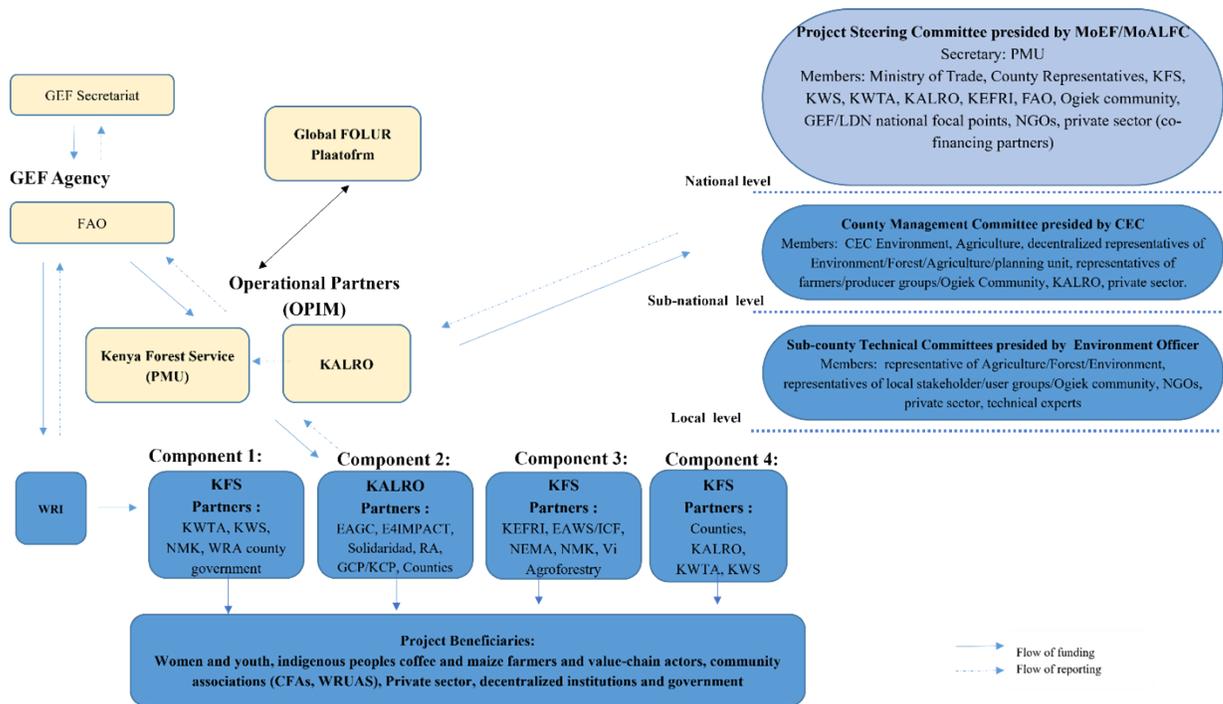
Figure 19. Institutional framework for project implementation

<u>Project Management Unit</u>

295. A Project Management Unit (PMU), co-funded by the GEF grant, will be established within KFS. The main functions of the PMU, following the guidance of the Project Steering Committee, are to ensure overall efficient management, coordination, implementation and monitoring of the project through the effective implementation of the annual work plans and budgets (AWP/Bs). The PMU will be composed of a National Project Coordinator (NPC) who will work full-time for the project lifetime. In addition, the PMU will include a Finance/Procurement officer, a Knowledge and M&E Officer, Project Assistant. The NPC and Finance/Procurement officer positions are fully co-financed (secondment).

296. The National Project Coordinator (NPC), supported by the PMU team, will oversee daily implementation, management, administration and technical supervision of the project, on behalf of the Operational partner and within the framework delineated by the PSC. S/he will be responsible, among others, for:

i)   Coordination with relevant initiatives;

ii)   Ensuring a high level of collaboration among participating institutions and organizations at the national and local levels;

iii)   Ensuring compliance with all Operational Partners Agreement (OPA) provisions during the implementation, including on timely reporting and financial management;

iv)   Coordination and close monitoring of the implementation of project activities;

v)   Tracking the project?s progress and ensuring timely delivery of inputs and outputs;

vi)   Providing technical support and assessing the outputs of the project national consultants hired with GEF funds, as well as the products generated in the implementation of the project,;

vii)   Approving and managing requests for provision of financial resources using provided format in OPA annexes;

viii)   Monitoring financial resources and accounting to ensure accuracy and reliability of financial reports;

ix)   Ensuring timely preparation and submission of requests for funds, financial and progress reports to FAO as per OPA reporting requirements;

x)   Maintaining documentation and evidence that describes the proper and prudent use of project resources as per OPA provisions, including making available this supporting documentation to FAO and designated auditors when requested;

xi)   Implementing and managing the project?s monitoring and communications plans;

xii)   Organizing project workshops and meetings to monitor progress and preparing the Annual Budget and Work Plan;

xiii)   Submitting the six-monthly Project Progress Reports (PPRs) with the AWP/B to the PSC and FAO;

xiv)   Preparing the first draft of the Project Implementation Review (PIR);

xv)   Supporting the organization of the mid-term and final evaluations in close coordination with the FAO Budget Holder and the FAO Independent Office of Evaluation (OED);

xvi)   Submitting the OP six-monthly technical and financial reports to FAO and facilitate the information exchange between the OP and FAO, if needed;

xvii)   Informing the PSC and FAO of any delays and difficulties as they arise during the implementation to ensure timely corrective measure and support.

<u>FOLUR Global Platform</u>

297. The project falls under the GEF-7 Food Systems, Land Use and Restoration Impact Program (FOLUR-IP), with 27 country projects (CPs) distributed across globally important geographies for commercial agricultural commodities and food staples, multiple GEF Agencies, and strategic international and regional private sector, NGOs and research partners. Uganda, as a major coffee producing country is also part of the program and will be working on the Ugandan side of the Mt Elgon landscape.

298. A FOLUR Global Platform, led by the World Bank, has been established to strengthen collaboration among the implementation agencies (with FAO as key technical partner), participating countries, core partners and the international investment community. The proposed project in Kenya will interact with the platform through:

-    *Annual check-ins.* The Global Platform will arrange field visits or video conferences with the national project team (PMU) at least once per year for a one-on-one check in. These contacts will be scheduled in collaboration with FAO. The country project will also share results of capacity needs assessment carried out at the start of the project and request technical assistance/expertise where required.

- *Sharing of best practices/approaches*. The country project will develop tools and knowledge products to capture best practices to share with the Global Platform.

- *Standardized Guidance.* The Platform will provide demand- and needs-based guidance to the national project team, sharing best practices and ensuring that implementation is executed to a high standard.

- *Annual / Regional Meetings*. The Platform will organize an annual meeting of FOLUR partners and country projects as an opportunity for learning, networking, assessing results and assessing demand for technical support.

?   6.b Coordination with other relevant GEF-financed projects and other initiatives.

299. During the inception workshop of the project design phase, national stakeholders highlighted the importance of developing synergies and avoiding duplication with other ongoing initiatives linked to FLR and inclusive Value Chain development. A specific request was made to facilitate a platform/mechanism at the national level to promote interaction between all ongoing GEF projects in Kenya to ensure knowledge and experience exchange in all directions as well as to facilitate efficient reporting. During the PPG phase,

the following projects were identified and consulted to promote coordination and synergies. This also includes the sister Child FOLUR project in Uganda with which this project shares a landscape boundary.

Table 12: Relevant GEF-financed projects and related initiatives

Project title	Implementing Agency	Description
GEF: Restoration of Arid and Semi-arid lands (ASAL) of Kenya through Bio-enterprise Development and other Incentives under The Restoration Initiative	FAO	The goal of this project is to reduce the overall proportion of degraded land by 20 percent in the areas targeted by the project. Although the project interventions are targeting ASALs, it also supports the development of national FLR policy framework and national knowledge sharing platform for FLR. As such the FOLUR project will learn and share from the national KM platform under development and also domesticate the national FOLAREP at county level.
GEF: Enhancing Integrated Natural Resource Management to Arrest and Reverse Current Trends in Biodiversity Loss and Land Degradation for Increased Ecosystem Services in the Tana Delta, Kenya	UNEP	The overall project objective is to strengthen integrated natural resource management and restoration of degraded landscapes in the Tana Delta, and systemically scale up best practices and lessons learned to other priority landscapes in Kenya. Valuable lessons on restoration, nature-based Income Generating Activities and community management of biodiversity across the landscape can be learned to scale up through the FOLUR project.

GEF: **Food-IAP: Establishment of the Upper Tana Nairobi Water Fund (UTNWF)**	IFAD	The goal for this project is a well conserved Upper Tana River basin for improved water quality and quantity for downstream users(public and private), maintaining regular flows of water throughout the year; protecting remaining aquatic and terrestrial biodiversity and enhancing ecosystem services, such as soil/sediment retention, nutrient retention, amelioration of land degradation hot spots and water yield?that improve, food security, economic/green growth, and human well-being for upstream local communities. The UTNWF as a public-private-partnership of donors and major water consumers ?at the tap? will contribute to the initial endowment of the Water Fund (WF) to support water and soil conservation measures ?at the top?. These measures benefit local farmers? livelihoods, food security and resilience through increasing agricultural yields and introducing climate-smart agricultural techniques, and thus reducing soil erosion.
GEF: **Scaling up Sustainable Land Management and Biodiversity Conservation to Reduce Environmental Degradation in Small Scale Agriculture in Western Kenya**	UNEP	The project objective is to promote the adoption and adaption of sustainable land and forest ecosystem management (SLM/SFM) practices across the productive landscape of the Kakamega-Nandi ecosystem. The FOLUR project will build on experience and approach used to develop sustainable land-use plans at micro-catchment level as well as the creation of intercounty forums to promote integrated landscape approach. The project also will provide opportunities for exchange visits to the demonstration and learning sites established on SLM practices.
GEF: **Capacity, Policy and Financial Incentives for PFM in Kirisia Forest and integrated Rangelands Management**	FAO	The project objective is to strengthen biodiversity conservation and enhance carbon sequestration through participatory sustainable forest management systems in dryland public and communal lands. The project aims to improve livelihoods of communities from dryland forest-based products and services. The FOLUR project will build on experience and approach used to ensure local communities are fully involved and perceive socio-economic benefits.

Restoring forest landscapes in Africa (2020-2025)	IKI	The global project aims to restore the ecological and productive functions of degraded ecosystems in tree-rich landscapes to increase the resilience of landscapes and communities. The project has 4 components : restore and enable at ground level, unblock large-scale FLR, resourcing FLR and sharing and monitoring FLR experiences. Valuable lessons and approaches can be shared between both projects.
Green Zones Development Project (2018-2024)	AfDB	The project is working in three other water towers (Mt. Kenya, Aberdares and Mau) and comprises three main components (i)Forest Conservation and Livelihood Support (ii) Sustainable and Inclusive Value Chains Development and (iii) Project Management and Coordination. The project provides new and more efficient ways of increasing forest cover, increasing food security, improve community livelihood through sustainable and inclusive commodity value chain and market development.
Coffee Revitalization project through National Agricultural and Rural Inclusive Growth Project (NARIGP) and Kenya Climate Smart Agriculture Project (KCSAP)	WB	This initiative is being piloted in Kiambu, Murang?, Nyeri, Kirinyaga, Embu, Tharaka Nithi, Meru and Machakos counties. It has four components, namely, Increasing production and productivity, Enhancing the efficiency of coffee cooperative societies, Strengthening research-extension linkages for technology dissemination and Increasing access to markets for smallholder coffee farmers. Activities under the project include supporting farmers with quality inputs, training farmers on Good Agricultural Practices (GAPs), training factory managers on Good Manufacturing Practices (GMPs), advancing grants to cooperative societies to improve their coffee processing infrastructure, training on entrepreneurship and governance, soil analysis and recommending the right type of fertilizer to the farmers among other activities.

Mt Kenya Sustainable Landscape and Livelihoods Programme	Rainforest Alliance	The project aims to build the resilience of 51,000 coffee & tea farmers and members of forest dependant community to economic and climate shocks. The project is following similar integrated landscape approach for the promotion of SLM practices. The FOLUR project will actively interact with the programme to promote knowledge exchange and sharing of best practices.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

300. The project is closely aligned with and contributes to objectives and targets set in several national strategies and plans, and those related to the implementation of multilateral environmental agreements, outlined in the table below:

Table 13 Consistency with key national strategies/plans

UNCCD National Land Degradation Neutrality Strategy and Targets, 2020.	Kenya has set the following LDN targets at national and sub-national scale:
	? National scale: LDN is achieved by 2030 as compared to 2015 and an additional 9 percent of the national territory has improved (net gain)
	? Specific sub-national scale important for the project: LDN is achieved in the Lake Victoria region (Nile basin) of Kenya by 2030 as compared to 2015 and an additional 9 percent of the zone has improved (net gain).
	Both land restoration and promotion of SLM practices are identified as key measures to minimize and reverse land degradation. The project will therefore make a significant direct contribution to the LDN targets as also reflected in its contribution to GEF core indicators.

UNCBD National Biodiversity Strategy and Action Plan (2019-2030).	The FOLUR project contributes to several of identified NBSAP goals and strategic targets. Specifically the following: Goal 1: Mainstream biodiversity conservation and sustainable use into decision-making processes across all sectors to address the underlying causes of biodiversity loss. **Target 4**: By 2030, stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption of food, water, energy, minerals, oil and gas and infrastructure development and have kept the impacts of use of natural resources well within safe ecological limits and ensure biodiversity net gain in the production process. Goal 2: Reduce the Direct Pressures on Biodiversity and Maintain their Capacity to Provide Goods, Services and Support Livelihoods. **Target 6**: By 2030, the rate of loss of all natural habitats, including forests, is brought close to zero, and degradation and fragmentation is significantly reduced. **Target 9**: By 2030 areas under agriculture, aquaculture, river systems, wetlands, dry land, mountain and hill tops, and forestry are managed sustainably based on spatial land use plans and management plans, ensuring biodiversity conservation.
Kenya?s updated National Determined Contribution (2020).	The project will make a contribution to the following priority mitigation and adaptation actions identified in the NDC: - Make progress towards achieving a tree cover of at least 10% of the land area of Kenya. - Make efforts towards LDN. - Mainstream climate-smart agriculture towards increase productivity through value chain approach to support the transformation of agriculture into innovative, commercially oriented, competitive and modern sector. - Build resilience of agriculture systems through sustainable management of land, soil, water and other natural resources.
Vision 2030 and Big Four agenda (2017-2022)	The project is consistent with Kenya?s Vision 2030 overarching goal to transform Kenya into a newly industrialized country. The project specifically will contribute to both the economic pillar through the development of sustainable inclusive coffee value chain enhancing the income for local farmers and communities through sustainable job creation and diversification and the social pillar through promotion of integrated participatory management of the natural resources and implementation of restoration interventions to enhance the provision of ecosystem services to communities and production systems. The project will also contribute to the third political pillar through capacity development of decentralized and national stakeholders on sustainable food system promotion following the landscape approach.
Agricultural Sector Transformation and Growth Strategy (ASTGS) 2019-2029 & National Agriculture Investment Plan (NAIP) 2019-2024	The project will contribute to the three prioritized anchors of ASTGS: Anchor 1: increase small-scale farmer, pastoralist and fisherfolk incomes Anchor 2: increase agricultural output and value addition Anchor 3: increase household food resilience. The project contributes to NAIP flagship programs and the targeted commodities of coffee and maize fit within the prioritized value chains.

Green Economy Strategy and Implementation Plan (GESIP) 2016-2030	The project will invest in all thematic areas prioritized in the GESIP: building resilience, sustainable natural resource management, promoting resource efficiency and social inclusion and sustainable livelihoods.
National Forest Programme 2016-2030	The project is in line with the overall objective to develop and sustainably manage, conserve, restore and utilize forests and allied resources for socio-economic growth and climate resilience. It will contribute to its strategic objectives: (i) Increase tree cover and reverse forest degradation through sustainable forest management, ii) Enhance forest-based economic, social and environmental benefits including by improving the livelihoods of forest-dependent people, iii) Enhance capacity development, research and adoption of technologies to increase value adding to forest products, iv) Create an enabling environment for mobilizing resources and investment to spur forest development, and v) Inculcate good forest governance through integrating national values and principles of governance in forest development.
National Climate Change Action Plan (2018 -2022) and National Adaptation Plan 2015-2030	Kenya NCCAP addresses the options for a low-carbon climate resilient development pathway as Kenya adapts to climate impacts and mitigates growing emissions. The NCCAP provides full details of a range of adaptation and mitigation actions in the context of a low carbon climate resilient development pathway. The action plan highlights priority action of restoration of forests and degraded land including implementation of climate smart agriculture and agroforestry.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

301. The knowledge management approach adopted by the project has been informed by the GEF Art of Knowledge Exchange Guide and guidance received from the Global FOLUR Platform (World Bank). The approach includes short-term (e.g. workshops), medium-term (e.g. multi-stakeholder dialogues) and long-term instruments (ILM platforms):

a)   Under component 1, the sub-county technical committees will work together with the County Project Management Committees to drive the planning process and also ensure that relevant and up-to-date knowledge is shared amongst stakeholders in the landscape. The inter-county Mt. Elgon multi stakeholder platform will promote exchange of knowledge across the administrative boundaries.

a)   Under component 2, both the County Kenya platforms (in connection with the National Kenya Platform) and the Business Hubs will provide the space and platform for knowledge exchange between smallholder farmers, technical institutions, service providers and other relevant value chain actors.

b)   Under component 3, the community-based organizations and structures (Council of Elders, CFAs, WRUAs) will form the entry point to ensure local knowledge on conservation and restoration is captured and shared across the landscape and beyond. The Project Management Unit will play a key role and will promote active liaising with KEFRI and the national Knowledge Management Platform on FLR which is under development with support of the GEF6 TRI project.

c) Under component 4, the transboundary knowledge exchange will be promoted with the Uganda FOLUR child project and yearly forums will be organized and briefs developed to actively learn from each other. The project will also actively engage with the Global FOLUR Knowledge Platform, to share knowledge and experience coming out of Kenya, while accessing innovations and best practices/tools from other FOLUR countries and Global/Regional Commodity networks.

302. A summary of the approach with key deliverables, timeline and budget, is presented in Table 14 below. A detailed knowledge management strategy will be designed within the first 6 months of project implementation.

Table 14: Knowledge management plan

Key deliverable	Timeline	Budget
Knowledge management and communications strategies developed and implemented (Output 4.1.1). At least two success stories per year are shared with FOLUR Global Platform, and with county and national level multi-stakeholder platforms, NGOs, private sector, civil society and communities. Impact stories on gender and women empowerment, and Indigenous Peoples livelihoods improvement within the project. Participation in global and regional FOLUR events (including exchanges within Kenya and with Uganda). Thematic technical papers/publications, guides. County coffee platform meetings conducted.	Within first six months of project implementation Throughout project implementation	? Development of information dissemination and communication strategies and implementation ? production and dissemination of knowledge and communication products: USD 80,000 ? Participation in regional and Global FOLUR IP events and activities: USD 100,000 ? County, inter-county and sub-county knowledge exchange events (including coffee platform meetings): USD 75,000 ? Transboundary knowledge platform: USD 40,000 ? Knowledge and awareness raising explicitly targeting women, youth and minority groups USD 20,000
Total Budget		**USD 285,000**

9. Monitoring and Evaluation

Describe the budgeted M and E plan

<u>Oversight</u>

303. Project oversight will be carried out by the National Project Steering Committee (PSC) and FAO. Oversight will ensure that: (i) project outputs are produced in accordance with the project results framework and leading to the achievement of project outcomes; (ii) project outcomes are leading to the achievement of the project objective; (iii) risks are continuously identified and monitored and appropriate mitigation strategies are applied; and (iv) agreed project global environmental and socio-economic benefits are being delivered.

304. FAO will provide oversight of GEF financed activities, outputs and outcomes largely through the annual Project Implementation Reports (PIRs), periodic backstopping and supervision missions by the Lead Technical Unit and the GEF Coordination Unit.

305. FAO will also ensure spot checks and annual audits of the operational partners (OPs) based on the capacity assessments carried out during the PPG phase.

<u>Monitoring</u>

306. Day-to-day project monitoring will be carried out by the National Project Management Unit (PMU), and County Project Management Committees. Project performance will be monitored using the project results matrix, including indicators (baseline and targets) and annual work plans and budgets. At inception the results matrix will be reviewed to finalize identification of: i) outputs ii) indicators; and iii) missing baseline information and targets. A detailed M&E system, which builds on the results matrix and defines specific requirements for each indicator (data collection methods, frequency, responsibilities for data collection and analysis, etc.) will also be developed during project inception by the M&E specialist hired by the PMU. Project indicators shall always include GEF core indicators and specific FOLUR-IP indicators that track the contribution of the project to overall program impact.

<u>Reporting</u>

307. Specific reports that will be prepared under the M&E program are: (i) Project inception report; (ii) Annual Work Plan and Budget (AWPB); (iii) Project Progress Reports (PPRs); (iv) annual Project Implementation Review (PIR); (v) Technical Reports; (vi) co-financing reports; and (vii) Terminal Report.

308. <u>Project Inception Report.</u> The Project Management Unit (PMU) will prepare a project inception report in consultation with project partners and FAO. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed first year AWP/B, a detailed project monitoring plan. The draft inception report will be circulated to the PSC for review and comments before its finalization, no later than one month after project start-up.

309. <u>Results-based Annual Work Plan and Budget (AWP/B).</u> The draft of the first AWP/B will be prepared by the PMU in consultation with FAO and reviewed at the project Inception Workshop. The Inception Workshop (IW) inputs will be incorporated and the PMU will submit a final draft AWP/B within two weeks of the IW to the BH. For subsequent AWP/B, the PMU will organize a project progress review and planning meeting for its review. The AWP/B must be linked to the project?s Results Framework indicators so that the project?s work is contributing to the achievement of the indicators. The AWP/B should include

detailed activities to be implemented to achieve the project outputs and output targets and divided into monthly timeframes and targets and milestone dates for output indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year. The AWP/B should be approved by the Project Steering Committee.

310. Project Progress Reports (PPR). PPRs will be prepared by the PMU based on the systematic monitoring of output and outcome indicators identified in the project?s Results Framework (Annex A). The purpose of the PPR is to identify constraints, problems or bottlenecks that impede timely implementation and to take appropriate remedial action in a timely manner. They will also report on projects risks and implementation of the risk mitigation plan.

311. Annual Project Implementation Review. FAO (Lead Technical Officer), with inputs from the PMU, will prepare an annual PIR covering the period July (the previous year) through June (current year) for submission to the GEF Secretariat. The PIRs will be circulated to the PSC and the GEF Operational Focal Point for information.

312. Technical Reports. Technical reports will be prepared as part of project outputs and to document and share project outcomes and lessons learned. The FAO Lead Technical Officer will be responsible for ensuring appropriate technical review and clearance of technical reports. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

313. Co-financing Reports. The PMU will be responsible for collecting the required information and reporting on co-financing as indicated in the Project Document. The co-financing report, which covers the period 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR.

314. Terminal Report. Within two months before the end date of the project, and one month before the Final Evaluation, the PMU will submit to FAO, a Terminal Report. The main purpose of the Terminal Report is to give guidance at ministerial or senior government level on the policy decisions required for the follow-up of the project, and to provide the GEF with information on how the funds were utilized. The Terminal Report is accordingly a concise account of the main products, results, conclusions and recommendations of the project. The target readership consists of persons who are not necessarily technical specialists but who need to understand the policy implications of technical findings and needs for ensuring sustainability of project results.

Evaluation

315. A mid-term review will be undertaken at project mid-term to review progress and effectiveness of implementation in terms of achieving the project objectives, outcomes and outputs. Findings and recommendations of this review will be instrumental for bringing any necessary improvement in the overall project design and execution strategy for the remaining period of the project?s term.

316. The GEF evaluation policy foresees that all medium and large size projects require a separate terminal evaluation. Such evaluation provides: i) accountability on results, processes, and performance; ii) recommendations to improve the sustainability of the results achieved and iii) lessons learned as an evidence-base for decision-making to be shared with all stakeholders (government, execution agency, other national partners, the GEF and FAO) to improve the performance of future projects.

317. The BH will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED and will be responsible for quality assurance. Independent external evaluators will conduct the terminal evaluation of the project taking into account the ?GEF Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects.? FAO Office of Evaluation (OED) will provide technical assistance throughout the evaluation process, via the OED Decentralized Evaluation Support team ? in particular, it will also give quality assurance feedback on: selection of the external evaluators, Terms of Reference of the evaluation, draft and final report. OED will be responsible for the quality assessment of the terminal evaluation report, including the GEF ratings.

318. After the completion of the terminal evaluation, the BH will be responsible to prepare the management response to the evaluation within four weeks and share it with national partners, GEF OFP, OED and the FAO GEF Coordination Unit.

Table 15: M&E Plan

Type of M&E Activity	Responsible Parties	Time-frame	Budget
Inception Workshop	Project Management Unit in consultation with FAO	Project Management Unit in consultation with FAO	25,000
Project Inception Report	PMU	Within two weeks of inception workshop	-
Supervision visits	FAO	Annually	Agency fee
Project Implementation Review report (PIR)	LTO, PMU	Annually in July	-
Co-financing Reports	PMU	Annually	-
Mid-term Evaluation	Independent consultant(s), organized by FAO.	During project year 3, at mid-term	35,000
Final evaluation	Independent consultant(s), organized by FAO.	To be launched 6 months before operational closure	50,000
Terminal Report	PMU, cleared by FAO	2 months before project end	7,000
National Travels			40,000
Knowledge and M&E Expert			60,000
Total Budget			**217,000**

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

319. The project is designed to deliver multiple concrete socio-economic benefits to smallholder farmers, women, youth and Ogiek community by improving the coffee and maize value chains, as well as additional nature-based enterprises within the landscape to become more sustainable, inclusive and productive. Concretely, the following key benefits will be delivered:

- 43,000 smallholder farmers (at least 30% women) have benefited from trainings on sustainable coffee, maize production practices and marketing;

- At least 60 regenerative entrepreneurs/community groups (50% women, youth, Indigenous Peoples) have received targeting capacity building support from the project on business plan development;

- At least 5 tree nursery operators (WRUA & CFAs) have a contracted agreement to grow and supply seedlings of native species for restoration in degraded sites;

- At least 30% increase in coffee and maize yield per tree and per hectare by the end of the project;

- At least 1000 hectares of coffee plantation under certification and having access to international market

320. Furthermore, the project responds to the FAO Guidelines on how to address decent rural employment in FAO country activities by contributing to three of the four pillars of decent work:

Pillar 1: Employment creation and enterprise development, which contains specific elements on: supporting smallholder farmers in accessing modern markets and modern value chains, value addition and supporting coffee cooperatives in direct marketing and training.

Pillar 2: Social protection, by encouraging the county governments to prioritize support to the elderly and physically disadvantaged members of the farming community in activities such as establishing terraces for control of soil erosion, pruning of coffee bushes, and others. The average age of farmers is 60 years.

Pillar 4: Governance and social change, with engagement of rural communities and smallholder farmer associations and groups including women and youth, in integrated landscape planning and policy processes, and in implementation and monitoring.

321. The project also responds to the Kenya Big Four pillars of:

? Decent Housing: With increased incomes from the farms and value addition beneficiaries will be able to improve their housing.

? Food security for all: Increase in production and reduction in post-harvest losses coupled with increased access to markets will increase both availability and accessibility to nutritious food.

? Manufacturing: The project will promote value addition to maize and coffee. These interventions will increase employment opportunities at the rural areas as well as increase income to the beneficiaries.

? Affordable health services: With increased incomes from the farm and forest activities, the beneficiaries will be able to afford better health care services.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
	Medium/Moderate		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

Table 12. Environmental and Social Risks

Risk Identified	Risk category	Mitigation measures	Indicators	Timeline

| ESS 2: Biodiversity, Ecosystems and Natural Habitats | Low | The project will work mainly in the buffer zones of the protected areas, but under the first component will engage all landscape stakeholders (including PA managers) to jointly discuss and develop an Ecosystem Management Plan for Mt Elgon. The establishment of these multi-stakeholder platforms will provide the space to interact and discuss cross-cutting issues such as wildlife and biodiversity.

The project will also provide capacity building of local Community Forest Associations to develop/revise their Participatory Forest Management Plans and implement restoration interventions within the forest reserves. With the support of technical institutions (KFS, KEFRI, KWS) and experts, localized endemic species will be used to restore indigenous forests.

The project will also support the Ogiek community to develop sustainable management plan for the Cheptikale Reserve.

Under the third component the interlinkage between the protected areas and the production systems beyond will also be highlighted through the identification of possible sustainable financing schemes to promote conservation and restoration. | # of sustainable management plans developed/revised by community-groups

stakeholders participating in capacity strengthening for enhanced and sustainable management of the landscapes (buffer zone and PA) | first two years of the projec |

ESS 3: Plant Genetic Resources for Food and Agriculture	Low	As part of the integrated landscape management approach, the project will promote sustainable agricultural intensification through the diversification of agricultural production. The focus will be on disease resistant and climate adaptive seedlings and varieties to increase productivity/tree for coffee and productivity/hectare for maize. The focus will also promote those local adapted species to promote agroforestry within the coffee and maize production systems in order to repair soil fertility and biodiversity. The project will also promote the development of nurseries at the cooperative and Community-level to support the restoration of degraded agricultural and forest lands. The species and seedlings to be selected will follow a transparent process owned by local communities and technically backstopped by relevant institutions and partners to enhance the capacity. The project will also promote community exchange visits to enhance knowledge on genetic diversity and potential usage of under-utilized species. Based on past projects, possible intervention would be the capacity strengthening on indigenous vegetable value chain which will improve soil conservation and food security while improving local livelihoods.	# nurseries established and number of indigenous trees planted by community groups # of farmers accessing improved varieties (coffee/maize)	year 2-5

| ESS 5: Pest And Pesticide Management | Medium | The project will focus on promoting an agro-ecological approach to support SLM/SFM/FLR practices within the targeted landscapes. The project will identify and assess the needs/options for the specific landscapes and production systems and in collaboration with technical institutions/NGOs will develop and promote training on specific topics.

Several approaches will be followed, such as Farmer Field School, Lead Farmer training and public extension support to enhance the capacities of local farmers. The project will prioritize biological control of pests and diseases to the extent possible taking into consideration traditional knowledge and experience. In case pesticides are required, procurement and usage will follow FAO/WHO International Code of Conduct as well adhere to national policies/guidelines in place to ensure it can be promoted safely without compromising the health of the ecosystem and the local people. | # of farmers trained on IPM | year 1-5 |

ESS 9: Indigenous Peoples and Cultural Heritage	High	During PPG, through desk review and consultation certain key issues were identified (court case pending with Government, mistrust of government institutions, presence of Ogiek CFA in one project area) and opportunities to work together (Council of Elders).	# of meetings with Ogiek community members # of Ogiek community members directly benefiting from project interventions	year 1-5
		Previous and on-going court cases are related to past resettlement by Kenya Forest Service of Ogiek?s in mainly Mau forest but also Elgon forest. Since then, Kenya Forest Service has developed a new approach for engagement of local communities and indigenous people in the management of forest in Kenya. This approach is based on the human right based approach and included long and detailed community sensitization and consultation regarding the role and right of local communities in the management of forests, the formation of community forest associations, participatory forest management plans and forest management agreements. Local ad-hoc committees and planning teams are nominated by the local communities and indigenous peoples to represent the community in the negotiations with Kenya Forest Service. This approach has been implemented in Kirisia forest, Samburu County, Kenya, through a GEF (5th replenishment cycle) funded project implemented by FAO in collaboration with Kenya Forest Service.		

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
ESS Checklist & ESM Plan	**CEO Endorsement ESS**	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

The project will contribute to the following Sustainable Development Goals (SDGs): SDG 2 (Zero Hunger), SDG 5 (Gender Equality), SDG 8 (inclusive and sustainable economic growth), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 15 (Life on Land), SDG 17 (Partnerships for Goals)							
Project Objective: To transform coffee and staple food production systems through integrated landscape management for the conservation and restoration of Mt. Elgon Ecosystem.							
Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Objective level indicators							
<u>**GEF-7 Core indicators**</u>	a) Core indicator 3: Area of land restored (hectares)	0	3,000	10,000	Progress reports, GIS/CE tracking, mission reports	? an enabling environment is created by the national and county governments for integrated planning across the different sectors and landscape actors; ? local farmers can access	PMU, operational partners, counties
	<u>*Sub-Indicator 3.1:*</u> Area of degraded agricultural land restored	0	3.1: 1,000 ha	3.1: 3,000 ha			
	<u>*Sub-Indicator 3.2:*</u> Area of forest and forest land restored	0	3.2: 2,000 ha	3.2: 7,000 ha			

-	b) Core indicator 4: Area of landscapes under improved practices (hectares)	0	20,000	50,000	Progress reports, GIS/CE tracking, mission reports	context-specific technical support; ? sustainable financing and governance mechanisms are available to support conservation and restoration; ? The project successfully demonstrates and communicates tangible socio-economic and environmental benefits, incentivizing landscape and value chain actors to invest in sustainable practices.	PMU, operational partners, counties
	Sub-indicator 4.1: Are of landscapes under improved management to benefit biodiversity		4.1a: 50 ha of wetlands under improved management	4.1a2: 100 ha of wetlands under improved management			
	Sub-Indicator 4.3: Area of landscapes under sustainable land management in production systems		4.1b: 10,900 ha of landscapes under improved management to benefit biodiversity	4.1.b: 19,900 ha of landscapes under improved management to benefit biodiversity			
			4.3: 10,000 ha of landscapes under sustainable land management in production systems	4.3: 30,000 of landscapes under sustainable land management in production systems			

| - | c) Core indicator 6:

Greenhouse Gas Emissions Mitigated (metric tons of CO2e)

Sub-Indicator 4.1:
Carbon sequestered or emissions avoided in the AFOLU sector | 0 | - | 8,201,468 | EX-ACT calculation

Monitoring systems | | PMU with support of experts |
| - | d) Core Indicator 11:

Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment | 0 | Estimated beneficiaries 20,000 (at least 50% women); confirmed by MTE | 60,000 beneficiaries, of which at least 50% are women. | Baseline and progress reports, meeting/training records | | PMU, Operational partners, |

Component 1: Development of integrated landscape management (ILM) systems

| Outcome 1.1:
Mt. Elgon landscape managed sustainably with Integrated Landscape Management plans under implementation | # of hectares covered by ILM plans, informed by inclusive multi-stakeholder dialogue | 0 | 50,000 hectares | 178,880 ha covered by ILM plans | Meeting reports

Official ILM documents

Official PFMPs, SCMPs

Project supervision reports | ? Commitment at county/ landscape level towards integrated approach

? Buy-in and participation of all relevant landscape | PMU, Operational partners, County Governments |

-	# of effective multi-stakeholder platforms operational to promote ILM	0	one (1) intercounty and four (4) sub-county multi-stakeholder platforms established to promote ILM	One (1) intercounty and four (4) sub-county multi-stakeholder platforms established to promote ILM	Meeting reports, Project Progress reports, Official documents	actors	PMU, County Governments
-	# of gender-responsive policy frameworks updated/developed supporting ILM	0	At least 1 county policy	At least 2 county policy frameworks updated/developed to promote ILM	Policy briefs, county documents, meeting reports		PMU, County Governments
Component 2: Promoting sustainable and inclusive coffee and maize value chains							

Outcome 2.1: Improved efficiency and sustainability of coffee and maize production systems	# of farmers (at least 30 % women) benefited from training and access to services to support sustainable coffee and maize production and marketing	0	15,000	43,000 smallholder farmers with enhanced capacity on sustainable coffee and maize production and marketing	Baseline reports, progress reports, surveys, meeting/training reports	? Smallholder farmers and cooperatives participate in trainings, and are incentivized to test and adopt sustainable practices and technologies;	PMU, Operational partners
	# of hectares of landscapes under improved practices	0	10,000 ha		Baseline report, progress reports, surveys (CE, GIS)		PMU, Operational partners
	# of hectares in the process of certification			50,000 ha			
	% of Increase in coffee and maize yield per tree/hectare for smallholder farmers by the end of the project	TBC	300 ha	1,000 ha	Training reports, Certification Holder documentation, GIS		PMU, Operational partners
	# of entrepreneurs/community groups (50% women and youth, Ogiek community) supported through small grants to develop nature-based enterprises for economic empowerment and livelihood diversification	0	10% increase	At least 30% increase	Baseline report, HH surveys, progress report		
		0	10	40	Training and meeting reports, small grants proposals, progress reports		PMU, FAO, operational partners
	# of county coffee platforms established to promote inclusive and sustainable value chain approach						

Component 3: Conservation and restoration of degraded ecosystems							
Outcome 3.1: Increased Mt Elgon landscape area under conservation and restoration	# Hectares of degraded forest and forest land restored	0	1,000 ha	7,000 ha	Baseline report, progress reports, surveys (CE, GIS)	? Counties and technical institutions support forest and landscape restoration efforts.	PMU, Counties, Operational partners
	# Hectares of degraded farmland restored	0	1,000 ha	3,000 ha	Baseline report, progress reports, surveys (CE, GIS)	? Public and private landscape actors committed to invest in landscape restoration and sustainable management	PMU, Counties, Operational partners
-	# people trained and engaged in on-the-ground restoration activities (disaggregated by gender, at least 30% women)	0	3,000	10,000	Training and meeting reports, progress reports		PMU, Counties, Operational partners
Component 4: Knowledge management and M&E							
Outcome 4.1: Effective knowledge management and M&E supporting scale-up and impact at national and global level	Project M&E system operational	0	1 Quality M&E information and reports, as scheduled	1 Quality M&E information and reports, as scheduled	M&E reports Evaluation reports, progress and monitoring reports (PPR and PIR)	M&E officers have the necessary capacity and access to best tools/approaches	PMU

-	# of knowledge products and tools shared and/or adopted from the Global FOLUR Platform, regional and national platforms	0	At least 5 annually including: - at least two outcome stories to be shared with FOLUR Global Platform; - policy briefs; - newsletters; - thematic technical papers - fact sheets; - at least one impact story on gender and women empowerment within the project. - at least one impact story on indigenous peoples empowerment	At least 5 annually.	Newsletters, communication products, briefs, reports from exchange visits		PMU, operational partners

-	# of people reached through Transboundary Knowledge sharing platform	0	At least 500 people (at least 30& women) have interacted through the platform	At least 1,000 people (at least 30& women) have interacted through the platform	Meeting reports, outreach materials, interviews	People have access to communication channels with knowledge generated through transboundary platform.	PSC, PMU, MoEF, MALF and operational partners (KWS, KFS)

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

GEF Council Comments	Response

GEF Council Comments	Response
Germany: 1. Germany approves the following PIFs in the work program but asks that the following comments are taken into account: Suggestions for improvements to be made during the drafting of the final project proposal: ?　　　In order to enhance resilience and capacities for adaptation within the new project countries, Germany proposes that the full proposal should clearly identify and provide detailed information on how the local governments and civil society organizations in the respective new project countries will be strengthened as change agents of an enabling environment. Furthermore, it should be depicted how the national LDN Target Setting programmes are addressed (priority on avoiding land degradation) in order not to incentivize degradation through restoration support. The overall activities might be placed in the framework of the UN Decade on Ecosystem Restoration 2021?2030 to create further awareness with decision makers.	The comment is particularly relevant for Kenya in the context of decentralization within which the responsibility for agriculture and natural resources rests with the County Governments. Taking this into consideration, the ILM systems i.e. the planning process, platforms and implementation, will be built upon existing structures and institutions at local level which include: County Environment Committees, County Agriculture Sector Steering Committees, Water Resource User Associations (WRUAs), Community Forest Associations (CFA), Farmer Cooperatives, and indigenous community groups in Mt. Elgon. The project will facilitate the development of multi-stakeholder platforms that will bring all these landscape actors together and a capacity program to strengthen them as change agents (project output 1.1.2). The priority to avoid degradation is embedded within the objective, overall ILM approach and project components. In the Mt. Elgon landscape, one of the key challenges that the project addresses is the potential/further expansion of coffee and maize production into gazetted areas and buffer zones. Through component 2, the project?s response is to promote sustainable production on agricultural lands, complementing the restoration component 3. Mt. Elgon ecosystem has been identified as one of the degradation hotspots in the Kenya?s LDN Strategy and the proposed project contributed directly to LDN targets at national and sub-national scale: ?　　　National scale: LDN is achieved by 2030 as compared to 2015 and an additional 9 percent of the national territory has improved (net gain). ?　　　Specific sub-national scale important for the project: LDN is achieved in the Lake Victoria region (Nile basin) of Kenya by 2030 as compared to 2015 and an additional 9 percent of the zone has improved (net gain). Actions will be also undertaken to ensure restoration interventions at the county level is well anchored within the national Forest and Landscape Restoration Implementation Action Plan (FOLAREP) as part of the AFR100 and Bonn Challenge commitments.

GEF Council Comments	Response
<u>United Kingdom</u> Kenya ? The UK asks that implementing agencies should undertake due diligence on the proposed area of operation and ensure all relevant stakeholders, GoK, local politicians and communities in the area of operations, are engaged. We expected the Environmental & Social Safeguards assessment to bring out areas of possible concern and mitigations actions that need to be taken to avoid any conflicts on the ground.	Despite the challenging COVID-19 context and associated restrictions, FAO and the project design team were able to organize workshops (some virtual), bilateral meetings and field visits, following Government protocols in place. The main stakeholders identified and consulted include governmental institutions, research institutions, NGOs, CSOs, private sector, international development agencies and local stakeholders (smallholder farmers and communities). Specific attention was given to the Ogiek indigenous community which is living within the project area to discuss if and how the proposed project can support and engage them in the restoration and sustainable management of the ecosystem, while also contributing to improved livelihoods in line with their traditional culture. The process, stakeholders and Environmental and Social Risk assessment are presented in section 2 (stakeholders), section 5 (risks) and annex I1 (environmental and Social Risk) and annex J (Indigenous Peoples).

GEF Council Comments	Response
Switzerland - In some cases, the co-financing numbers seem to be very high in our understanding in particular because the co-financing is often declared as in-kind contribution. Could you explain to us how you will ensure that the co-financing will materialize, in particular when it is declared as in-kind contribution? We prefer you indicate realistic co-financing figures, which can be met by all project and program partners. - You have only marked these projects with the climate change mitigation Rio Marker. We would also expect that the projects would lead to increased resilience and therefore would expect them to also be at least partially relevant for climate change adaptation. Could you explain, why you are not capturing the climate change adaptation benefits of the program? - The Voluntary Guidelines on Land Tenure (VGGT; CFS, FAO) should in general be considered in each child project and not just in some. At the moment they are only considered in some child projects. - We believe WOCAT and the application of WOCAT Tools could be interesting for all child projects and should be considered in all of them. At the moment they are only considered in some. - It is not clear to us how small holders in particular women will benefit from the various child projects. Could you please further clarify this in the further development of the program and the various child projects? - Improved diversification of the	- During project design, co-financing was discussed extensively with partners and what constitute in-kind co-financing clearly defined in line with GEF guidelines on co-financing. Co-financing will be monitored and reported, as part of the M&E plan, presented to the project steering committee periodically to ensure that partners fulfil their commitments. - Yes, adaptation marker 1 applies. - The project will work in synergy with FAO?s Land Programme which is actively promoting VGGT and supporting decentralized government to improve land registration amongst others. - Yes, WOCAT tools will be considered as part of the Farmer Field Schools training package under component 2. - Specific activities targeted at smallholder farmers, including women, and associated impact indicators have been defined (please see in particular, the description of component 2). Specific attention is given to promote nature-based livelihood diversification for women and youth through provision of small grants. In addition, a gender action plan has been developed. - Indeed, diversification has been included as a sub-component under component 2. - The project?s contribution to LDN has been highlighted in a few places in the document including the section on contribution to GEBs and core targets.

ANNEX C: Status of Utilization of Project Preparation Grant (PPG).
(Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: **??150,000 (KEN/906/GFF)**			
Project Preparation Activities Implemented	*GETF Amount ($)*		
	Budgeted Amount	*Amount Spent to date*	*Amount Committed*
(5013) Consultants	?87,992	????63,637	24,355
(5014) Contracts	9,360	9,360	0
(5021) Travel	26,512	33,063	0
(5023) Training	26,000	7,848	11,348
(5024) Expendable Procurement	136	0	
Total	150,000	114,297	35,703

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

	County	Sub-county	Population	Size (km2)	Coordinates
1.	Bungoma	Mount Elgon	241,171	963.3	N 1.149051, S 0.757288, W 34.402124, E 34.812072
		Cheptais			
2.	Trans Nzoia	Endebess	91,192	676.9	N 1.299827, S 0.999116, W 34.550690, E 34.950231
		Saboati	166,482	349.9	N 1.062796, S 0.843124, W 34.672375, E 35.033375

ANNEX E: Project Budget Table

Please attach a project budget table.

Oracle code and description	Unit	No. of units	Unit cost	Total	Component 1: Total	Component 2: Total	Component 3: Total	Component 4: Total	M&E	PMC	GEF	OP1: KFS	OP2: KALRO	Other contracting entities	FAO Support Services	Total
5570 International Consultants																
Interntional Policy expert (ILM/food systems)	Month	15	3,300	49,500	12,375	12,375	12,375	12,375			49,500	49,500				49,500
International consultant (mid term review)	Lumpsum	1	35,000	35,000					35,000		35,000				35,000	35,000
International consultant (end of implementation evaluation)	Lumpsum	1	50,000	50,000					50,000		50,000				50,000	50,000
PES international	Month	12	4,000	48,000			48,000				48,000	48,000				48,000
Sub-total international Consultants				182,500	12,375	12,375	60,375	12,375	85,000		182,500	97,500			85,000	182,500
5570 National Consultants																
CSA expert	Month	48	2,000	96,000	24,000	24,000	24,000	24,000			96,000		96,000			96,000
Knowledge and M&E expert	Month	60	2,000	120,000					60,000	60,000	120,000	120,000				120,000
Project assistant	Month	60	1,000	60,000						60,000	60,000	60,000				60,000
Communication expert	Month	60	1,500	90,000	12,000	20,000	16,000	42,000			90,000	90,000				90,000
Gender and ESS safeguards (IP) expert	Month	60	3,000	180,000	45,000	45,000	45,000	45,000			180,000				180,000	180,000
Capacity development expert	Month	14	3,000	42,000	10,500	10,500	10,500	10,500			42,000	42,000				42,000
National expert on multi-stakeholder engagement	Month	24	3,000	72,000	18,000	18,000	18,000	18,000			72,000	72,000				72,000
Sub-total nationalConsultants				660,000	109,500	117,500	113,500	199,500	60,000	60,000	660,000	384,000	96,000		180,000	660,000
5650 Contracts																
LoA Technical support on GIS data and information to develop Ecosystem Management Plan and iLMPs	Lumpsum	1	150,000	150,000	120,000		30,000				150,000			150,000		150,000
Technical support to harmonize/prepare sustainable management plans (KWS,KFS, KWTA, WRA)	Lumpsum	1	150,000	150,000	150,000						150,000	150,000				150,000
LoA Support the development and implementation of Chepkitale community land management plan	Lumpsum	1	30,000	30,000	30,000						30,000			30,000		30,000
LoA Livelihood Enterprises of the Chepkitale Ogiek Community of the Mt. Elgon Ecosystem promoted through sustainable enterprise development	Lumpsum	1	40,000	40,000		40,000					40,000			40,000		40,000
Single critical endemic species assessment and development of conservation action plan(s) for ILM (NMK)	Lumpsum	1	15,000	15,000	15,000						15,000	15,000				15,000
Support to WRUAs to implement biodiversity positive conservation measures	Lumpsum	1	60,000	60,000			60,000				60,000	30,000	30,000			60,000
Innovative business hubs established to promote market access and services	Lumpsum	1	300,000	300,000		300,000					300,000		300,000			300,000
Facilitate access to services and information (act 2124-2126)	Lumpsum	1	145,000	145,000		145,000					145,000		145,000			145,000
Branding and certification of coffee farmers	Lumpsum	1	100,000	100,000		100,000					100,000		100,000			100,000
Youth and woman business accelerator support along coffee value chain	Lumpsum	1	65,273	65,273		65,273					65,273		65,273			65,273
Contract on business incubation for nature-based livelihoods	Lumpsum	1	45,000	45,000		45,000					45,000			45,000		45,000
LoA Development of Bio-Cultural Protocol and safe-guarding of intellectual property rights of the Cheptikale Ogiek of the Mt. Elgon ecosystemn	Lumpsum	1	15,000	15,000			15,000				15,000			15,000		15,000
LoA Ogiek-specific FFS support	Lumpsum	1	15,000	15,000		15,000					15,000			15,000		15,000
On-the-ground identification (ground truthing) of degraded water catchment areas, including wetlands	Lumpsum	1	5,000	5,000			5,000				5,000	5,000				5,000
Awareness raising and sustainable management of critical wetland areas	Lumpsum	1	50,000	50,000	-		50,000				50,000	50,000				50,000
Restoration interventions on degraded forest lands	Lumpsum	1	500,000	500,000	-		500,000				500,000	500,000				500,000
LoA Rehabilitation of degraded areas and reduced pressure on indigenous forested areas using traditional Ogiek knowledge and experience	Lumpsum	1	40,000	40,000			40,000				40,000			40,000		40,000
Restoration interventions on agricultural lands	Lumpsum	1	420,000	420,000	-		420,000				420,000		420,000			420,000
Identification of sustainable and innovative financing mechanisms for conservation and restoration	Lumpsum	1	40,000	40,000	-		40,000				40,000	40,000				40,000
LoA Translation and dissemination of knowledge products in local language through local FMs	Lumpsum	1	10,000	10,000				10,000			10,000			10,000		10,000
LoA capacity development of community scouts and tour guides, as well as traditional community governing institutions	Lumpsum	1	15,000	15,000			15,000				15,000			15000		15,000
Audit (1 per year)	Lumpsum	1	57,000	57,000						57,000	57,000				57,000	57,000
Spot-checks (1 per year per OP)	Lumpsum	1	26,060	26,060						26,060	26,060				26,060	26,060
Terminal Report (7,000)	Lumpsum	1	7,000	7,000					7,000		7,000				7,000	7,000
5650 Sub-total Contracts				2,300,333	315,000	710,273	1,175,000	10,000	7,000	83,060	2,300,333	790,000	1,060,273	360,000	90,060	2,300,333
5030 Cash and Financial Assistance																
Micro project Grants (2.1.5.2)	Lumpsum	1	100,000	100,000		100,000					100,000				100,000	100,000
Small Grant support to Ogiek (2.1.6.3)	Lumpsum	1	130,000	130,000		130,000					130,000				130,000	130,000
5030 Sub-total Cash and Financial Asisstance				230,000		230,000					230,000				230,000	230,000
5900 Travel																
International travel																
International Travel (FOLUR Global Platform and regional events)	Trip	10	10,000	100,000				100,000			100,000	50,000	50,000			100,000
Exchange visits (international)	Lumpsum	1	20,000	20,000	20,000						20,000	20,000				20,000
National travel												70,000	50,000			
National (monitoring)	Trip	20	2,000	40,000					40,000		40,000	40,000				40,000
Exchange visits (national)	Lumpsum	1	10,000	10,000	10,000						10,000	10,000				10,000
National (project participation in related project events)	Lumpsum	1	5,000	5,000				5,000			5,000	5,000				5,000
5900 Sub-total travel				175,000	30,000			105,000	40,000		175,000	125,000	50,000			175,000
5920 Training and workshops																
National inception	Event	1	15,000	15,000					15,000		15,000	15,000				15,000
County-level inception	Event	2	5,000	10,000					10,000		10,000	10,000				10,000
National Project Steering Committee Meetings (10: 5Virtual x5 In person meetings)	Event	5	5,000	25,000				25,000			25,000	25,000				25,000
County and sub-county Project Management Committee Meetings	Event	50	2,000	100,000	100,000						100,000	100,000				100,000
ILM Multi-Stakeholder Platforms and policy dialogues including inter county high level meetings and county coffee platforms	Event	30	5,000	150,000	150,000						150,000	150,000				150,000
Knowledge and awareness raising	Lumpsum	1	20,000	20,000				20,000			20,000	20,000				20,000
Micro project committee meeting (to approve community proposals)	Event	1	5,000	5,000		5,000					5,000	5,000				5,000
Inclusive and equitable capacity development programs implemented to promote sustainable coffee and maize production and processing	Lumpsum	1	500,000	500,000		500,000					500,000		500,000			500,000
Support establishment of 26 clonal gardens and coffee/agroforestry nurseries	Lumpsum	1	49,000	49,000	0	49,000					49,000		49000			49,000
Business and entrepreneurship training (10 sessions for 3 days)	Lumpsum	1	50,000	50,000		50,000					50,000		50,000			50,000
Maize Quarterly & Value chain players meetings *(2 meetings per year)*	event	10	2,000	20,000		20,000					20,000		20,000			20,000
Training on digitalization for coffee cooperatives	Lumpsum	1	10,400	10,400		10,400					10,400		10,400			10,400
B2B meetings between coffee farmers and buyers (2 per county per year for 4 years)	event	16	7,500	120,000		120,000					120,000		120,000			120,000
County-based Coffee festivals (one per county)	event	2	40,000	80,000		80,000					80,000		80,000			80,000
Strengthening governance of community organizations:	Lumpsum	1	16,000	16,000			16,000				16,000	16,000				16,000
Support to the counties to operationalize their forestry Transition Implementation Plan (TIP)	Lumpsum	2	18,000	36,000			36,000				36,000	36,000				36,000
Governance training 26 Coffee Coops + WRUAs+CFA (2 sessions of 30 people for one week)	unit	410	40	16,400		16,400					16,400		16400			16,400
Capacity building on knowledge manmagement and sharing	Lumpsum	1	20,000	20,000				20,000			20,000	20000				20,000
Transboundary knowledge sharing event with FOLUR Uganda	Event	4	10,000	40,000				40,000			40,000	40,000				40,000
5920 Sub-total training				1,282,800	250,000	850,800	52,000	105,000	25,000		1,282,800	437,000	845,800			1,282,800
6000 Expendable Procurement																
Communication products and dissemination, including graphic design and printing, publications	Lumpsum	1	64,000	64,000				64,000			64,000	44,000	20,000			64,000
Development of IP indigenous knowledge products and project related products for the local FM (comp 4).	Lumpsum	1	10,000	10,000				10,000			10,000				10,000	10,000
GIS unit county	Lumpsum	1	15,000	15,000	15,000						15,000	15,000				15,000
6000 Sub-total Expendable Procurement				89,000	15,000			74,000			89,000	59,000	20,000		10,000	89,000
6100 Non-expendable procurement																
Motobikes (one for each subcounty? Or one for each watershed ?)	Lumpsum	4	2,000	8,000	2,000	2,000	2,000	2,000			8,000	8,000				8,000
Office supply &IT	Lumpsum	1	10,000	10,000						10,000	10,000	10,000				10,000
Basic Equipment for VACs & Hubs (moisture meters ,weign scales pallets, Hermatic bags etc)	Lumpsum	4	10,000	40,000		40,000					40,000		40,000			40,000
Project vehicle	Lumpsum	1	40,000	40,000	10,000	10,000	10,000	10,000			40,000	40,000				40,000
Establishment of Community Tree Nurseries (10 strategically located nurseries to produce 2m seedlings per year for 4 years to be used in restoration of degrades sites)	unit	10	10,000	100,000			100,000				100,000	100,000				100,000
Procurement for 20 school fruit nurseries	Lumpsum	1	18,000	18,000			18,000				18,000		18,000			18,000
Livelihood support material	Lumpsum	1	34,000	34,000		34,000					34,000		34,000			34,000
Farmer field school demonstration material	unit	768	200	153,600		153,600					153,600		153,600			153,600
6100 Sub-total non-expendable procurement				403,600	12,000	239,600	130,000	12,000		10,000	403,600	158,000	245,600			403,600
6300 General Operating Expenses																
Office expenses (electricity, water, phone, fuel, etc)	lumpsum	1	11,354	11,354						11,354	11,354	11,354				11,354
Maintenance motorbikes and car	lumpsum	1	20,000	20,000	3,999	6,665	5,332	4,004			20,000	20,000				20,000
6300 Sub-total GOE budget				31,354	3,999	6,665	5,332	4,004		11,354	31,354	31,354				31,354
TOTAL				5,354,587	747,874	2,167,213	1,536,207	521,879	217,000	164,414	5,354,587	2,081,854	2,317,673	360,000	595,060	5,354,587

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).