



FAO/GLOBAL ENVIRONMENT FACILITY
PROJECT DOCUMENT



Project Title:	Restoration of arid and semi-arid lands (ASAL) of Kenya through bio-enterprise development and other incentives under The Restoration Initiative
FAO Project symbol:	GCP/KEN/090/GFF
GEF Project ID:	9556
Recipient Country(ies):	Kenya
Executing partners:	Lead executing partner: KEFRI Other executing partners: KFS, IUCN Kenya, National Museum of Kenya, Northern Rangeland Trust
Expected EOD (Starting Date):	January 2018
Expected NTE (End Date):	December 2022
Contribution to FAO's Strategic Framework: (Indicate as appropriate)	<p>SO2: Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner:</p> <ul style="list-style-type: none"> ➤ <i>Outcome 2.1: Producers and natural resource managers adopt practices that increase and improve agricultural sector production in a sustainable manner; and</i> ➤ <i>Output 2.1.1: Innovative practices for sustainable agricultural production (including traditional practices that improve sustainability, such as those listed as Globally Important Agricultural Heritage Systems) are identified, assessed and disseminated and their adoption by stakeholders is facilitated.</i> <p>Country Programming Framework(s) Output: the project is aligned with Kenya CPF:</p> <ul style="list-style-type: none"> ➤ <i>Outcome 3: Improved management of natural resources (rangeland, agricultural land, water and forest) at national and community level; Output 3.1: Capacity for improved management of commonly managed natural resources strengthened at the community level; and</i> ➤ <i>Outcome 4: Improved livelihood resilience of targeted, vulnerable populations; Output 4.1: Increased productive capacity of households living with chronic vulnerability and output 4.2: Increased viable livelihood options available to vulnerable households.</i>
Contribution to GEF TF Focal Area Strategic Objectives and Programs: Contribution to Climate Change Adaptation Strategy Strategic Objectives (LDCF/SCCF projects):	<p>BD-4 Program 9: Managing the Human-Biodiversity Interface CC-2 Program 4: Promote conservation and enhancement of carbon stocks in forest, and other land use, and support climate smart agriculture LD-2 Program 3: Landscape Management and Restoration LD-3 Program 4: Scaling-up sustainable land management through the Landscape Approach</p>

	SFM-3: Restored Forest Ecosystems: Reverse the loss of ecosystem services within degraded forest landscapes
Environmental and Social Risk Classification	low risk <input type="checkbox"/> moderate risk <input checked="" type="checkbox"/> high risk <input type="checkbox"/>
Gender Marker ¹	G0 <input type="checkbox"/> G1 <input type="checkbox"/> G2a <input checked="" type="checkbox"/> G2b <input type="checkbox"/>
Financing Plan: GEF allocation:	GEFTF: USD 4,157,340
Co-financing:	KEFRI: i) WaTER project: USD 500,000; ii) CADEP-SFM project: USD 4,000,000; iii) Integrated program to build resilience to CC and adaptive capacity of vulnerable communities in Kenya: USD 2,000,000 FAO Land Programme: USD 4,300,000 FAO RAELOC: USD 1,700,000
Sub-total co-financing:	USD 12,500,000
Total budget:	USD 16,657,340
Executive Summary	
<p>Between 1990 and 2010, Kenya’s forest cover decreased from 12% to only 6%, but the country has set the objective of bringing it back to 10% by 2030. In Kenya’s Arid and semi-arid lands (ASALs), deforestation is largely driven by unsustainable forest use by communities, including logging for construction materials and fuelwood, overgrazing, land use change, and grass fires, and is aggravated by population growth and the lack of alternatives for livelihoods. Deforestation and land degradation threaten vital ecosystem services, and lead to loss of biodiversity and conflict, especially in a context of increased droughts due to climate change and poor water management. While several forest and land management policies and laws have been adopted, policy and capacity gaps remain.</p> <p>The Kenya TRI project adopts an integrated approach to address deforestation, land degradation and biodiversity loss, targeting policy and institutional capacity while supporting community-led forest and landscape restoration (FLR) and the development of alternative livelihoods. The project’s overall objective is to restore deforested and degraded lands through the FLR approach and enhance the socioeconomic development of local communities through the development of bio-enterprises of Non-Timber Forest Products and Services (NTFPS) in ASALs. Its goal is to reduce the overall proportion of degraded land by 20% in the areas covered by the project.</p> <p>The project strategy is built around four components. Component 1: Policy development and integration aims to build the gap from the FLR policy to a strategy, and to support the decentralization of FLR policy and the development of a NTFPS policy. Component 2 focuses on the implementation of FLR actions in two specific landscapes and the development of NTFPS bio-enterprises, and includes an assessment of ecosystem services on project sites. Component 3 strengthens capacity of counties and communities to implement and coordinate FLR. Finally, Component 4 supports knowledge management and monitoring on FLR in Kenya, as well as knowledge sharing with other TRI projects.</p> <p>The expected outcomes from this project are the following:</p> <ul style="list-style-type: none"> • Outcome 1: The national and county level policy and regulatory frameworks are strengthened to support forest and landscape restoration in Kenya; • Outcome 2: 152,661 ha are under improved land management (including 8,700 ha directly restored and 55,352 ha indirectly restored); • Outcome 3: Strengthened institutional capacities and financing arrangements are in place and facilitate large scale restoration and maintenance of critical landscapes; and • Outcome 4: Improved FLR monitoring, reporting and knowledge dissemination at national level (including for the NCP) 	

¹ See [Guidance Note on ‘Gender Mainstreaming in project identification and formulation’](#).

- The project will be implemented in the following two specific landscapes: i) the Mount Kulal Biosphere Reserve in Marsabit county, a UNESCO Man-and-the-Biosphere reserve due to its unique and varied ecosystems; and ii) the Mukogodo forest and landscape in Laikipia and Isiolo counties, which have high biodiversity, in particular wildlife of touristic interest. Both forests are key water towers for Kenya and are threatened by deforestation, while their surrounded landscape are threaten by land degradation and their biodiverse natural resources are under strong pressure. Being in ASALs, these two landscapes are amongst the most vulnerable to climate change. The integrated approach of the TRI Kenya project will contribute to the restoration of forest and rangeland areas to ensure that communities continue to benefit from their forests' multiple ecosystem services. The development of bio-enterprises will build on the participatory methodology Market Analysis and Development (MA&D) to help diversify sources of income and generate incentives for FLR.

The project aims to improve the sustainable management of 152,661 ha (through improved management plans) and directly restore 8,700 ha of deforested and degraded lands in the two targeted landscapes. This will involve implementing sustainable land management practices and improving water management, which will ensure long-lasting benefits from sustainable use of the land and protected biodiversity. It will also indirectly lead to the restoration of 55,352 ha of degraded lands in the pilote sites and more through consolidated legal and policy framework, increased coordination and improved knowledge on FLR.

ACRONYMS

Acronym	Definition
AFR100	African Forest Landscape Restoration Initiative
ALAP	African Landscapes Action Plan
ARLI	African Resilient Landscapes Initiative
ASAL	Arid and semi-arid lands
AWP/B	Annual Work plan and Budget
BAU	Business as usual
BH	Budget Holder
CBO	Community-based organization
CEC	County Environment Committee
CECF	Community Environment Conservation Fund
CFA	Community forest association
CLMB	County Land Management Board
CPF	Country Programme Framework
CSR	Corporate social responsibility
DRM	Drought risk management
EDE	Ending Drought Emergencies
EMCA	Environmental Management and Coordination Act
EU	European Union
FAO	Food and Agriculture Organization
FCMTF	Forest conservation and management trust fund
FFF	Forest and Farm Facility
FFS	Farmer field school
FLO	Funding Liaison Officer
FLR	Forest and landscape restoration
FLRM	Forest and Landscape Restoration Mechanism (FLRM)
FOA	FAO Forestry Department
FPIC	Free Prior and Informed Consent
FPMIS	Field Programme Management Information System
GEF	Global Environment Facility

GHG	Green-houses gases
GPFLR	Global Partnership on Forest and Landscape Restoration
HDI	Human Development Index
HRBA	Human Rights Based Approaches
IGA	Income generation activities
IL MAMUSI	Il Ngwesi, Makurian, Mukogodo and Sieku group ranches
INDC	Intended Nationally Determined Contribution
IUCN	International Union for Conservation of Nature
KALRO	Kenya Agriculture and Livestock Research Organization
KEFRI	Kenya forest research institute
KFS	Kenya forest service
KWS	Kenya Wildlife Service
KWTA	Kenya Water Tower Authority
LDBA	Climate Change, Biodiversity and Land Degradation program
LoA	Letter of Agreement
LRTWG	Landscape Restoration Technical Working Group
LTO	Lead Technical Officer
LTWP	Lake Turkana Wind Power
LULUCF	Land use, land use change and forestry
LWF	Laikipia Wildlife Forum
M&E	Monitoring and evaluation
MA&D	Market Analysis and Development
MAB	Man and Biosphere Reserve
MEAs	Multilateral environmental agreements
MENR	Ministry of Environment and Natural Resources
MESP	Mount Marsabit Ecosystem Project
MKBR	Mount Kulal Biosphere Reserve
NAS-PEER	United States National Academy of Science Partnerships for Enhanced Engagement in Research
NEMA	National Environment Management Authority of Kenya
NETFUND	National Environment Trust Fund
NDMA	National Drought Management Authority

NGOs	Non-governmental organizations
NMK	National Museums of Kenya
NPC	National Project Coordinator
NRT	Northern Rangeland Trusts
NTFP	Non-timber forest products
NTFPS	Non-timber forest products and services
OCC	Oldonyiro Community Conservancy
PES	Payment for Ecosystem services
PFD	Program Framework Document
PIR	Project Implementation Review
PMU	Project Management Unit
PPG	Project Preparation Grant
PPP	Private Public Partnerships
PPR	<i>Peste des Petits Ruminants</i>
PPRs	Project Progress Reports
PRISE	Pathways to Resilience in Semi-arid Economies
PSC	Project Steering Committee
PTF	Project Task Force
PY	Project Year
RAELOC	Reviving ASAL Economies through Livestock Opportunities and Improved Coordination
RBM	Results-based-management
RLACC	Rural Livelihoods' Adaptation to Climate Change in the Horn of Africa
ROAM	Restoration Opportunity Assessment Methodology
SDGs	Sustainable Development Goals
SFM	Sustainable forest management
SLEM	Sustainable land and forest ecosystem management
SLM	Sustainable land management
TRI	The Restoration Initiative
UNCBD	United Nations Convention on Biological Diversity
UENERB	Upper Ewaso Ngiro River Basin
UNCCD	United Nations Convention to Combat Desertification

UNFCCC	United Nations Framework Convention on Climate Change
UNV	United Nations Volunteers
UTNWF	Upper Tana Nairobi Water Fund
VCI	Vegetation Condition Index
WaTer	Kenya Water Tower Protection and Climate Change Mitigation and Adaptation programme
WoC	Winds of Change Foundation
WRI	World Resources Institute
WRUA	Water Resource Users Association
WSTF	Water Sector Trust Fund
WWM	Wazee wa mazingira committee

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SECTION 1. PROJECT RATIONALE

1.1. PROJECT CONTEXT

1.1.1. National context

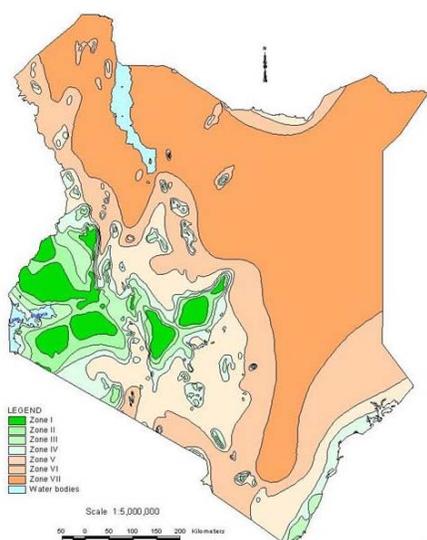
Physical context

Kenya is an East African country with a total area of 580,367 km² located directly on the Equator. Neighboring countries include Somalia to the East, Ethiopia and South Sudan to the North, Uganda to the East and Tanzania to the South. Its south-eastern side borders the Indian Ocean. Its area includes 11,227 km² of water, including Lake Victoria and Lake Turkana, both of which are shared with neighboring countries. The mean elevation of the country is 762 m, but it varies greatly from sea level to the summit of Mount Kenya at 5,199 m (CIA, 2017). Precipitations also vary a lot, ranging from <250 mm/year in arid and semi-arid areas to >2,000 mm in high potential areas (FAO, 2006).

Climate, soils and vegetation

This makes for a highly diverse climate, soil composition and vegetation types. Climate varies from tropical on the coast to arid in the interior. It is under the influence of the Inter-Tropical Convergence Zone which brings to most of the country two rainy seasons: from March to May (“Long Rains”) and from October to December (“Short Rains”). Mid-March is the hottest and driest season while June to September is the “cool season” (NEMA, 2015). According to the Food and Agriculture Organization (FAO) Kenya Country Pasture/Forage Resource Profile, “Climate is the most important factor influencing soil formation. Climate affects the soil types directly through its weathering effects and indirectly as a result of its influence upon vegetation”. It identifies seven agro-climatic zones in Kenya:

Table 1. Kenya’s agro-climatic zones



Agro - Climatic Zone	Classification	Moisture Index (%)	Annual Rainfall (mm)	Land Area (%)
I	Humid	>80	1100-2700	12
II	Sub-humid	65 - 80	1000-1600	
III	Semi-humid	50 - 65	800-1400	
IV	Semi-humid to semi-arid	40 - 50	600-1100	5
V	Semi-arid	25 - 40	450-900	15
VI	Arid	15 - 25	300-550	22
VII	Very arid	<15	150-350	46

Source : FAO, 2006

Areas I, II and III are considered to have a high potential for cropping, and represent 12% of the country. Areas IV to VII are generally referred to as the “Kenyan rangelands” and represent 88% of the country. More recent data provided in Kenya’s Forest Policy mention that arid and semi-arid lands (ASAL) “cover about 80% of Kenya’s total land surface and hold 25% of the human population” (Government of Kenya, 2014).

The humid regions are mostly the ones with an altitude above 1,500 m and that receive over 1,000 mm of rain per year. These include the highlands east and west of the Rift Valley, which have volcanic and loamy soils, but also other regions with an altitude below 1,500 m located along the coast. Some have well drained soils of loamy and sandy textures, while others are covered with mangrove, and are “deep, gray, saline and poorly drained” (FAO, 2006).

The sub-humid regions receive less rainfall than the humid ones and are located between 1,000 and 2,000 m above sea level. Their soils are composed of volcanic and basement rocks. The sub-humid regions are mostly located around the Lake Victoria region and Western Kenya.

The semi-arid regions of the northern and north-eastern Kenya receive between 300 and 500 mm of rain per year. Their soils are shallow and generally infertile, although some regions which receive a little more rainfall (up to 600 mm/year) and have volcanic soils, are fertile (FAO, 2006).

Biodiversity

Such variations in climate and soils, along with a long evolutionary history have led to the development of a unique and diverse flora and fauna. Kenya has been ranked by the International Union for Conservation of Nature (IUCN) as second in Africa in terms of mammalian species, a list that includes large mammals such as the leopard, buffalo, black rhinoceros, African elephant and African lion. However, biodiversity is threatened by human-wildlife conflict, poaching, overexploitation and human encroachments. Climate change also poses an important threat to biodiversity as it modifies the current habitats and ecosystems (NEMA, 2015). 30% of biodiversity resources are protected under one of the following modalities: national parks, sanctuaries, gazetted forests, and heritage sites (Government of Kenya, 2015). Biodiversity is an important source of income for the country as it is the basis for the tourism industry.

Forests

Between 1990 and 2010, Kenya’s forest cover decreased from 12% to only 6%. In its new Constitution established in 2010, the country has however undertaken to bring this rate back to 10%. The most recent definition of forest, in the Forest Conservation and Management Act (2016) is the following: “land which is declared or registered as a forest, or woody vegetation growing in close proximity in an area of over 0.5 of hectares including a forest in the process of establishment, woodlands, thickets”. Kenya’s forest cover is now higher than previously thought, after the Kenya forest service (KFS) and Kenya forest research institute (KEFRI) conducted countrywide mapping using data from the GIS and Remote Sensing Laboratory. This provided an ‘accurate’ figure of 6.6%, which is more than the 5.1% estimate of 2011. The five following forest classes have been identified:

1. private plantation forests;
2. public plantation forests;
3. open forests;
4. open woodlands;
5. indigenous mangroves; and
6. indigenous closed canopy.

Open woodlands represent approximately 59% of the forest area, while closed canopy represents 33%. Forest cover is still under threat, as 80% of the population relies on its biomass for their energy needs and represents a source of income (NEMA, 2015).

The Technical Report on the national assessment of forest and landscape restoration opportunities in Kenya conducted in 2016 illustrates with the Figure 1 below the multiple ecosystem services that are provided by Kenyan forests and which have the potential to be restored under the constitutional commitments of Kenya.

This assessment was conducted according to the mapping module of the Restoration Opportunity Assessment Methodology (ROAM) (IUCN and WRI, 2014).

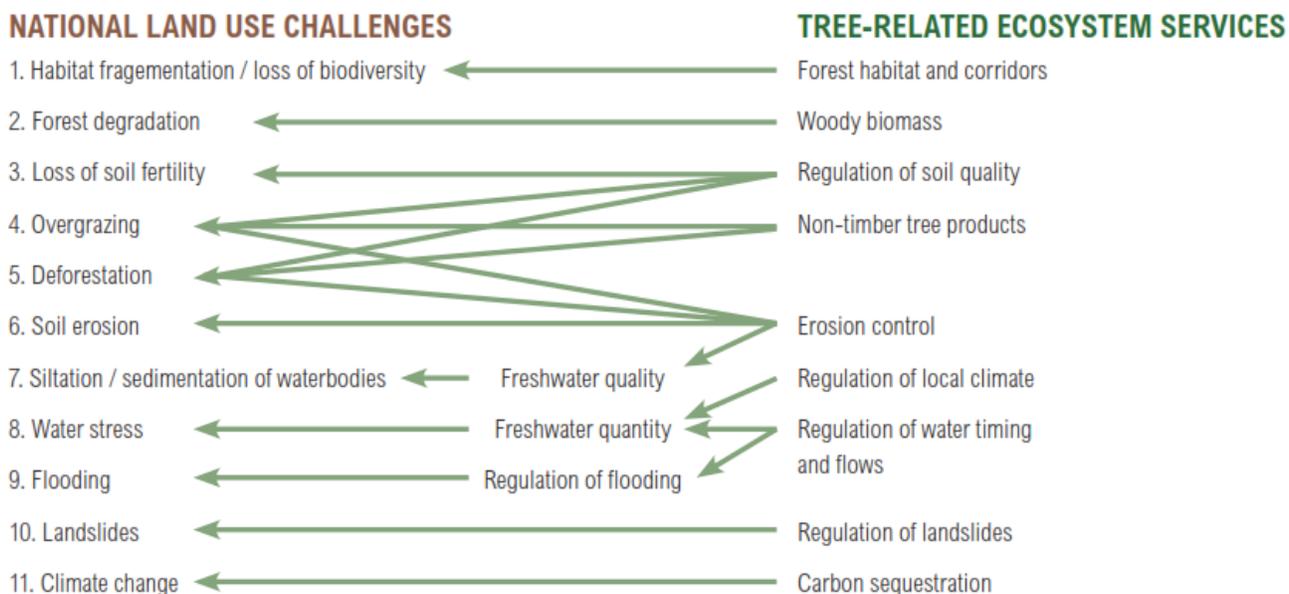


Figure 1. Trees, ecosystem services, and national land use challenges (Source: KFS, 2016)

Water Resources

Water flows from five main water towers (Mount Kenya, Aberdares Ranges, Mau Complex, Mount Elgon and Cherangany Hills) into six major drainage basins (Lake Victoria North and South, Rift Valley, Athi, Tana, and Ewaso Ng'iro North) through a network of perennial and ephemeral rivers. Some of these rivers have dams that produce electricity. The Kenya Water Tower Authority (KWTA) identifies 28 water towers, including Mount Kulal and Mukogodo forest (KWTA, 2015). However, the country is considered as water scarce country as the water availability per capita is of 586 m³, well below the 1000 m³ threshold. Renewable water sources are largely concentrated in the Southwestern region of the country around Lake Victoria and Tana catchments. In 2010, 50% of water demand was for irrigation purposes, 37% for domestic use and 8% for livestock. While water availability is expected to decrease to 393 m³ by 2030, water demand is planned to increase due to population growth and the implementation of Vision 2030 (NEMA, 2015).

Socio-economic context

Population

Kenya's population is of approximately 46.8 million (CIA, 2017), and has been growing by approximately 1 million per year since the year 2000. Even though fertility rates now stand at 3.14 children/woman, this increase is mostly due to past high fertility rates, which reached 8.1 children/woman in 1978, along with a decline in mortality rates (NEMA, 2015). Life expectancy remains low at 64 years, ranking 186th in the world; 40.87% of the population is therefore aged less than 14 years-old. Because of its relative political stability, Kenya has also been a destination for hundreds of thousands of refugees in the past decades, and currently hosts approximately 400,000 Somali refugees. The main ethnic groups are:

Agricultural products constitute the majority of the exports, followed by clothing and apparel. Tourism also contributes to approximately 10% of GDP, which means that the most important international trade drivers depend on natural resources management. The information communications and technology and the transport sectors also contribute to the services sector.

75% of the workforce is in the agriculture sector, while industry and services occupy 25% of the workforce (CIA, 2017). It is estimated that 80% of employment is informal, and therefore often involves low productivity, vulnerability of employment, and low incomes. Overall, unemployment was of 36% in 2013 (NEMA, 2015).

Institutional context

The main national institutions involved in natural resources management, and especially forest management and forest and landscape restoration (FLR) are the following:

Ministry of Environment and Natural Resources (MENR)

Its mission is “To facilitate good governance in the protection, restoration, conservation, development and management of the environment and natural resources for equitable and sustainable development.” In addition to the administrative division, it includes the Kenya Meteorological Department as well as two Directorates. The Directorate of Environment covers policy formulation and implementation, multilateral environmental agreements (MEAs), Program, Projects and Strategic Initiatives, the Urban Rivers Program and Climate Change. The Directorate of Natural Resources covers Forest Conservation and Wildlife Conservation (Government of Kenya, 2017).

Five semi-autonomous government agencies fall under this ministry:

- **National Environment Management Authority (NEMA):** It ensures general supervision and coordination of all environment matters, and leads the implementation of all environment policies. Among its key functions, the following are of particular relevance to this project:
 - To promote the integration of environmental considerations into development policies, plans, programs and projects, with a view to ensuring the proper management and rational utilization of environmental resources, on sustainable yield basis, for the improvement of the quality of human life in Kenya;
 - To take stock of the natural resources in Kenya and their utilization and conservation;
 - To establish and review land use guidelines; and
 - To examine land use patterns to determine their impact on the quality and quantity of natural resources. (NEMA, 2017)
- **KFS:** Its mission is the “Conservation, sustainable development, management and utilization of the country’s forest resources for equitable benefit of present and future generations.” Its strategic plan includes five strategic objectives:
 - Increase net forest cover;
 - Strengthen financial base;
 - Enhance conservation, sustainable management and utilization of forests by improving livelihoods in rural areas;
 - Effectively manage information within interactive integrated information systems in support of business processes and improved service delivery; and
 - Strengthen institutional capacity to deliver on its mandate.

KFS hosts the multi-stakeholder Landscape Restoration Technical Working Group (LRTWG) (KFS, 2017) which was set to carry out an assessment of the existing restoration opportunities, to plan for

restoration activities at the national level, and to leverage resources to support implementation on the ground.

KFS also hosts the Forest conservation and management trust fund (FCMTF) which is currently being established. It will be managed by a Board of Trustees with members appointed by the Cabinet Secretary,

- **KEFRI:** It conducts research and development activities on forestry and natural resources, specifically under five thematic areas:
 - Forest productivity and Improvement;
 - Biodiversity and Environment Management;
 - Forest Products Development;
 - Social-economics, Policy and Governance; and
 - Technical Support Services.

Its mandate involves disseminating research findings and establishing partnerships with other research organizations and institutions for higher learning (KEFRI, 2017).

- **KWTA:** Its main role is “to co-ordinate and oversee the protection, rehabilitation, conservation, and sustainable management of water towers” and it also “co-ordinates and oversees the recovery and restoration of forest lands, wetlands and biodiversity hotspots. It has the responsibility of promoting the implementation of livelihood programs in the water towers in accordance with natural resource conservation laws” (KWTA, 2017).
- **Kenya Wildlife Service (KWS):** It aims to conserve and manage wildlife in Kenya, in a sustainable manner. National parks and wildlife conservation areas fall under its jurisdiction. Its role also involves developing benefit sharing mechanisms for communities living in wildlife areas, and management plans for community and private wildlife conservancies and sanctuaries. It is also responsible for enforcement of anti-poaching regulation. (KWS, 2017)

MENR also hosts the National Environment Trust Fund (NETFUND), which promotes sustainable environmental management and green growth through green business incubation, research and communication activities such as environmental awards. It was established within the provisions of the Environmental Management and Coordination Act (EMCA) 1999 to facilitate research intended to further the requirements of environmental management, capacity building, environmental awards, environmental publications, scholarships and grants. NETFUND is governed by a Board of Trustees with members appointed by the Cabinet Secretary in charge of Environment.

Ministry of Agriculture, Livestock and Fisheries

“To improve the livelihood of Kenyans and ensures food security through creation of an enabling environment and ensuring sustainable natural resource management.” It is responsible for all aspects of agricultural management, from formulation, implementation and monitoring of legislations, regulations and policies, to research, program development and information management. (Ministry of Agriculture, Livestock and Fisheries, 2017)

National Drought Management Authority (NDMA)

This public body was established in 2016 to “exercise overall coordination over all matters relating to drought management including implementation of policies and programmes relating to drought management”. While drought management used to be performed using a project structure, on an as-needed basis, this new structure will allow to build capacity, increase sustainability and quality of interventions and also to plan and

implement long-term actions in a coordinated manner. In addition to its Support Services and its Audit Departments, NDMA has three main departments:

- Technical Services, which includes Drought Information, Drought Resilience and Drought Contingency Planning and Response;
- Resource Mobilization and Advocacy, which mobilizes resources, builds partnerships and develops advocacy programs to involve the community in drought management;
- Policy, Planning and Research (NDMA, 2017)

NDMA regularly publishes the Vegetation Condition Index (VCI) for the 23 ASAL counties, which is supported by the European Union through the ASAL Drought Contingency Fund.

Kenya Agriculture and Livestock Research Organization (KALRO)

KALRO aims to “promote, streamline, coordinate and regulate all aspects of research in agriculture and livestock development, and also promote the application of the research findings and technologies in the country”. 16 specific institutes fall under its authority, conducting research either on crops or on livestock. Among these is the Arid and Range Lands institute which focuses on “developing, adapting and upscaling scientific research innovations, information and knowledge geared towards sustainably managing livelihoods of communities living in the ASALs”. (KALRO, 2017).

Legal and policy context

National policies and legislation

There is an ample legal and policy context relevant to land restoration in ASALs. The foundation for this is in the most recent **Constitution of Kenya** which was adopted in 2010, and whose article 69 (1) calls for reforestation and maintaining a tree cover of at least 10% of the country so as to ensure a sustainable use of resources, growth and employment creation. Kenya’s economic blueprint **Vision 2030** also supports these goals. In particular, it has a flagship project underway for rehabilitating and protecting indigenous forests in the five water towers, with the goal to increase forest cover and volume of water flowing from the catchment areas.

Despite the attempts to improve forest governance and the introduction of the concept of “participatory forest management” in the **Forest Act** (2005), forest cover continued to decrease and land to be converted to other uses. The **National Forest Policy** (2015) was set to “explore new measures to halt, and reverse the pace of deforestation and forest degradation in the country and increase forest cover” and to take advantage of the “emerging opportunities for sustainable forest financing both at national and international level to [...] maximize the rate of social and economic development and secure optimum welfare of all citizens.” It aimed at achieving “sustainable development, management, utilization and conservation of forest resources and equitable sharing of accrued benefits for the present and future generations of the people of Kenya.”

Its objectives are to:

- (a) Increase and maintain tree and forest cover of at least ten percent of the land area of Kenya;
- (b) Establish an enabling legislative and institutional framework for development of the forest sector;
- (c) Support forestry research, education, training, information generation and dissemination, and technology transfer for sustainable development;
- (d) Promote public, private and community participation and partnership in forest sector development;
- (e) Promote investment in commercial tree growing, forest industry and trade; and
- (f) Enhance management of forest resources for conservation of soil, water biodiversity and environmental stability.

This policy addressed the case of ASALs by mentioning that they “require special attention to strengthen not only the economic base of the inhabitants but also the national economy”, that they “have the potential to supply marketable commodities on a sustainable basis such as gums and resins, aloe, charcoal, essential oils, silk, edible oil, fruits, honey and timber” and that they “also offer the greatest potential for intensified afforestation towards achieving the national objective of 10% tree cover.” The policy therefore states that:

“The Government will:

- a) promote sustainable management of dryland forests;*
- b) promote commercial tree growing of suitable tree species;*
- c) promote sustainable production of charcoal;*
- d) create a conducive environment for establishment of forest based enterprises;*
- e) support the rehabilitation of degraded dryland forests and encourage tree planting in the ASALs;*
- f) promote conservation of genetic resources in dryland forests; and*
- g) promote the production of wood and non-wood forest products.”*

Kenya’s commitment to FLR, to increasing its tree cover and restoring ecosystem services, is an important tool in helping the country to meet its economic, environmental and development goals. Scaling up these restoration initiatives was promoted through the restoration opportunities assessment conducted in 2016. In September 2014, GoK established the LRTWG led by the KFS to carry out this assessment as a first step towards a coordinated strategy for scaling up landscape restoration in Kenya. The LRTWG includes a wide range of stakeholders and over the last two years it has held a series of landscape restoration workshops for analyzing different landscape restoration options for the country. The group identified the most pressing land use challenges currently affecting Kenya, as well as a list of restoration options that could help address these challenges and restore the ecosystem services. In addition, the LRTWG produced maps and associated area statistics to assist state and non-state actors to identify potential areas for FLR. The various FLR options identified include:

- Natural forests that can be enriched or even established in order to increase carbon sequestration, restore biodiversity and ecosystem services, prevent flooding, restore regulation of water flows and soil quality, as well as forest habitat for wildlife;
- Agroforestry and woodlots on cropland to reduce erosion, increase livelihood diversification, fodder production and soil fertility;
- Investment opportunities for commercial tree and bamboo plantations;
- Tree-based buffers along waterways, wetlands and roads to stabilize river banks, reduce runoff and control sedimentation; and
- Improved management practices and restoration for silvo-pastoralism and rangeland.

Because of the multi-sectoral nature of the LRTWG, these priorities cover a wide range of landscapes. Quantifying these different restoration options will help guide a national restoration target that will contribute to the many national priorities.

The **Forest Conservation and Management Act** was adopted in 2016 to replace the Forest Act of 2005. It requires the development and regular review of a national forest policy and a public forest strategy that provides plans for the “protection, conservation and management of forests and forests resources”. Other key features of this Act are:

- The establishment of the Kenya Forestry College to develop training programs in forest management and utilization;
- Provisions for the conservation and management of public, community and private forests and areas that require special protection;

- Provisions for community participation of forest lands by community forest association (CFA);
- Regulation of trade in forest products;
- Protection of indigenous forests;
- Protection of water resources;
- Establishment of the FCMTF; and
- Definition of forestry functions for county governments

The **Community Land Act of 2016** is also relevant to the context of this project, as it recognizes, protects and allows for registration of community lands, clarifies their management and the role of the county governments. Community is defined as a “consciously distinct and organized group of users of community land who are citizens of Kenya and share any of the following attributes: common ancestry, similar culture or unique mode of livelihood, socio-economic or other similar common interest, geographical space, ecological space, or ethnicity”.

It also clarifies that communities may hold land under the following tenure systems:

- “Customary;
- Freehold;
- Leasehold; and
- Such other tenure system recognized under the Act or other written law”

International commitments

Kenya is a party to the following MEAs (CIA, 2017):

- | | | |
|--|---|--|
| ✓ Convention on Biological Diversity (UNCBD) | ✓ Convention on the International Trade in Endangered Species of Wild Flora and Fauna | ✓ International Convention for the Prevention of Pollution from Ships |
| ✓ United Nations Framework Convention on Climate Change (UNFCCC) | ✓ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal | ✓ Convention on Wetlands of International Importance Especially As Waterfowl Habitat |
| ✓ Kyoto Protocol | ✓ United Nations Convention on the Law of the Sea | ✓ International Convention for the Regulation of Whaling |
| ✓ Paris Agreement | ✓ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter | |
| ✓ Convention to Combat Desertification (UNCCD) | ✓ Montreal Protocol on Substances that Deplete the Ozone Layer | |

The **National Climate Change Response Strategy and National Climate Change Action Plan** calls for growing 7.6 billion trees on 4.1 million hectares of land during the next 20 years.

As part of the Paris Agreement, Kenya’s commitments were the following:

- Mitigation: Decrease its “Green-houses gases (GHG) emissions by 30% by 2030 relative to the Business as usual (BAU) scenario of 143 MtCO₂eq.” This includes the objective of achieving a 10% tree cover, as well as the implementation of climate smart agriculture, among other activities;
- Adaptation: “Ensure enhanced resilience to climate change towards the attainment of vision 2030 by mainstreaming climate change adaptation into the Medium Term Plans and implementing adaptation actions. “ (Ministry of Environment and Natural Resources, 2015)

The **Bonn Challenge** is a global effort to restore 150 million hectares of the world's deforested and degraded land by 2020, and 350 million hectares by 2030. It is an implementation vehicle for national priorities such as water, food security, and rural development while contributing to the achievement of international climate change, biodiversity and land degradation commitments. The 2020 target was launched in Bonn in 2011 and was later endorsed and extended to 2030 by the New York Declaration on Forests of the 2014 UN Climate Summit. Regional implementation platforms for the Bonn Challenge are emerging around the world, including Initiative 20x20 in Latin America and the Caribbean, AFR100 for Africa, and ministerial roundtables in Latin America, East and Central Africa, and the Asia-Pacific region. Underlying the Bonn Challenge is the FLR approach, which aims to restore ecological integrity at the same time as improving human well-being through multifunctional landscapes. The Bonn Challenge is a practical method of realizing many existing international commitments, including the CBD Aichi Target 15, the UNFCCC REDD+ goal, and the Rio+20 land degradation neutrality goal. **Kenya's pledge to the Bonn Challenge is to restore 5.1 million hectares by 2030**, of which 1 million ha is planned to be from restoration of forest lands (KFS, 2016).

AFR100 (the African Forest Landscape Restoration Initiative) is a country-led effort to bring 100 million hectares of deforested and degraded landscapes across Africa into restoration by 2030. The initiative connects political partners in participating African nations with technical and financial support to scale up restoration on the ground and thereby to provide benefits for food security, climate change resilience, and poverty alleviation. The initiative contributes to the achievement of domestic environmental and development commitments, the Bonn Challenge, and Land Degradation Neutrality target-setting process, among other targets. AFR100 contributes to the African Resilient Landscapes Initiative (ARLI), and complements the African Landscapes Action Plan (ALAP) and the broader Climate Change, Biodiversity and Land Degradation (LDBA) program of the African Union. AFR100 accelerates progress towards achieving the Sustainable Development Goals (SDGs) and the Paris climate agreement.

1.1.2. Context in intervention areas

The project will be implemented in two landscapes located in three of the country's ASAL counties as detailed in table 4 below. These landscapes were selected during the PPG according to the following criteria:

- a) FLR opportunities areas highlighted through the National assessment of FLR opportunities in Kenya conducted in 2016;
- b) Counties covering rangelands and dense mountain forests in ASAL;
- c) Area of interest and opportunities for Non-Timber Forest Product (NTFP) and Bio-enterprises development potentialities;
- d) Logistics for project implementation;
- e) Critical biodiversity areas;
- f) Degree of land degradation;
- g) On-going initiatives (conservancies, etc.);
- h) Existing and functional institutions at sub-county level (CFAs, Water Resources Users Associations (WRUAs), Charcoal Producers Associations, Community Lands Management Committees);
- i) Motivation of the local stakeholders to engage in FLR activities; and
- j) The proposed restoration target of 8,400 ha.

Table 4. Project sites

County	Landscapes and specific sites	Area (Ha)	Households
Marsabit (Laisamis)	Mount Kulal Biosphere Reserve	Forest core zone: 1,100 ha	1187
	Arapal	42,810	380
	Gatab	7,1490	600
Laikipia (Laikipia North)	Mukogodo Forest	30,189 ha total area, Forest core zone: 2,700 ha	6933
	Il Ngwesi conservancy	9,470	586
	Makurian group ranch	5,390	323
	Kuri kuri group ranch	3,340	405
	Lekurruki conservancy (Sieku)	15,872	454
Isiolo	Oldonyiro conservancy	52,500	n/a
	Leparua conservancy	34,200	n/a

Targeted Landscape 1: Mount Kulal Biosphere Reserve (MKBR), in Marsabit County - Communities of Arapal and Gatab

Figure 3 below presents the location of the MKBR landscape.

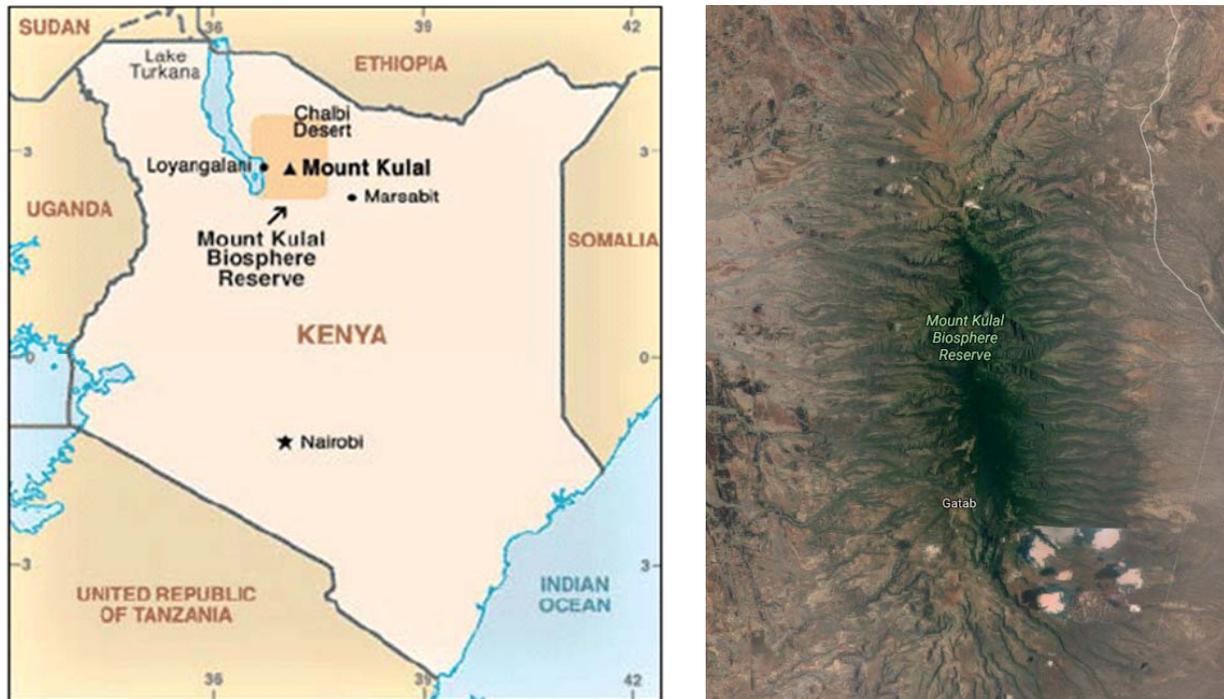


Figure 3. Mount Kulal Biosphere Reserve (Sources: FAO and Google)

Marsabit is located in the extreme north of Kenya, with a total area of 70,961 km². It is mostly constituted by a large plain at an altitude between 300 m and 900 m above sea level. Its western border is Lake Turkana.

(County Government of Marsabit, 2017). According to a paper by the Pathways to Resilience in Semi-arid Economies (PRISE) project, the territory of Marsabit is an arid land, and can be considered as being 100% ASAL (Njoka, 2016).

Located in the west of Marsabit, on the south-eastern side of Lake Turkana, Mount Kulal is an extinct Pleistocene volcanic mountain, rising up 2,235 m above sea level. While the area surrounding the mountain is one of the most hostile and arid parts of Kenya, at the top of the mountain a small mountainous forest covers the landscape and hosts a unique ecosystem resembling a rainforest. The area was designated a UNESCO Man and Biosphere (MAB) Reserve in 1978 due to the unique and varied ecosystems on the mountain and surroundings. Due to the surrounding dry areas, Mount Kulal forest has most likely never been connected to other forests, which has given rise to a high level of endemism. MKBR covers about 7000 km² extending from the eastern side of the lake, through ragged lava flows, up to the mist forest and thence to the top (2,335m), where there is a core zone of 11 km². Mount Kulal is a key Water Tower for Kenya in general and for the villages on and around the mountain in particular.

The main block of MKBR measures about 40km by 15km and runs in a north-south direction parallel to the south-eastern shores of the lake with its main ridge 25-30 km from the lake. The mountain drops steeply on all sides except in the north. Deep gorges run east and west from the main ridge. The original crater is located at the centre of the mountain ridge but the eastern rim has been eroded over millennia to form the Elkajarta gorge, which splits Kulal into southern and northern blocks of forest. The northern section of the forest covers about 600 ha and the southern part about 1,200 ha. In total the mountain is covered by approximately 4,000 ha of evergreen vegetation (Borghesio & Ndang'ang'a, An avifaunal survey of Mt Kulal, Kenya, 2001). Mount Kulal rises out of an arid (100-150 mm) environment at 350-500 m. The high evaporation potential is over 2600 mm. In contrast, the top of Mt Kulal is cool and moist (bimodal precipitation \pm 900-1200 mm in March/April and October/November) (Borghesio & Laiolo, 2004) (Mati, 2015). The mountain ecosystem captures moisture in the forms of mist and rain and provides important hydrological services for the entire region. Mist contributes to about 1/3 or 350 mm water annually and is especially important as a water resource during dry season when no rainfall is received (Cuni Sanchez, 2016). The mountain is dissected by numerous seasonal streams (*luggas*) flowing in all directions. These are deep and rocky upstream, but mainly sandy and shallow further down. Springs are found on and all around the mountain due to the highly permeable volcanic rocks. A number of springs on top of the mountain provide tapped water for villages located on the slopes such as Gatab. The water also seeps down to reappear as springs elsewhere further down such as the hot springs in Loiyangalani, which provide clean warm water to the town.

Biodiversity

The higher Mount Kulal hosts five distinct habitats (Borghesio & Laiolo, 2004) (Borghesio & Ndang'ang'a, 2001):

1. Forest: begins from an altitude of about 1,800 m and is dominated by trees with \geq 5 cm diameter and consists of a continuous canopy of trees exceeding 8m in height, averaging at 13m. The ground is covered by a low to medium density of shrubs. The most common tree species in the forest habitat include: *Cassipourea malosana*, *Olea hochstetteri*, *Xymalos monospora*, *Teclea simplicifolia*, and *T. nobilis*.
2. Forest edge: consists of a discontinuous canopy with trees mostly lower than 8 m. Ground vegetation is covered with a high density of shrubs. Common tree and shrub species are: *Olea europaea*, *Juniperus procera*, *Pistacia aethiopica* and *Cadia purpurea*.
3. Wet bush: between the altitudes 1,500-1,800m. They usually have no or very few trees and are dominated by evergreen bushes and shrubs. Common species include: *Cadia purpurea*, *Acacia brevispica*, *Carissa edulis*, *Myrsine africana* and *Euclea* spp.
4. Dry bush: Generally located at an altitude lower than 1,600m. Vegetation includes several acacia species and other deciduous plants.

5. Human habitats: including villages, pastures and farm fields

Apart from the common species listed above, MKBR also hosts a rich flora and fauna including a number of endemic species. The Kulal White-eye (*Zosterops kulalensis*) is considered a near threatened species and is endemic to the forest area of Mt. Kulal where it feeds on fruits and berries (Borghesio & Laiolo, 2004). The Mount Kulal chameleon (*Chamaeleo narraioca*), named after the Samburu word for chameleon, is most likely endemic to the forests of Mount Kulal. The range of the Mount Kulal chameleon is the smallest known range of the African continental chameleons (Necas et al. 2012). The forest is furthermore home to an endemic subspecies of the African swallowtail butterfly (*Papilio dardanus flavicornis*), the grasshopper (*Parasphena kulalensis*) and over 60 species of bird (Borghesio & Ndong'ang'a, 2001). In terms of flora MKBR hosts several endemic species including among others one endemic (*Acanthus kulalensis*) and one near endemic (*Justicia kulalensis*) *Acanthus* species (Hepper 1983). Mount Kulal is also considered to be the hotspot for endemism for *Aloes* endemic to East Africa (Wabuye and Bjora 2009).

Population

The National Population and Housing census of 2009 projected that the population of Marsabit would reach 373 000 inhabitants in 2017, with an annual population growth of 2.75%, with 67.8% being between 0 and 24 years old. The Human Development Index (HDI) in the county stands at 0.438, below the national average of 0.5608. The poverty rate is 83.2%.

The four traditional sub-locations in the MKBR have about 1,500-2,000 households altogether, with an average of 8-10 people per household. Seasonal demographic changes through in-migration and out-migration by other communities, including the Gabbra, Rendile and Turkana, are sometimes occasioned because of security, drought and access to water sources.

The main indigenous community around Mount Kulal is the Samburu (90%) and the Rendille (10%) which is considered a sub-tribe. The Samburu predominate on the mountain, while the Rendille are more on the eastern lowlands. The relationship between the Samburu and Rendille has been cordial over a long time and they intermarry freely. The southern and western lowlands are used by the Turkana and Samburu as grazing land, while the Gabbra are more to the north and north-east of the mountain. Despite sporadic clashes between Turkana and Samburu in the south in the 1990's, the two communities now graze side by side in the lowlands and are often seen using common watering points for their animals.

The indigenous communities have been responsible for the preservation and maintenance of traditional knowledge and practices that are highly relevant for sustainable use of biodiversity of Mount Kulal. International treaties have recognized the close and traditional dependence of many indigenous and local communities on biological resources. The Samburu are semi-nomadic pastoralists whose lives revolve around their cows, sheep, goats, and camels. Milk and meat is their main stay. Generally they make soups from roots and barks and eat vegetables if living in an area where they can be grown.

Women around Mount Kulal have less control over capital and other resources. They have very little participation in decision making. Women are the core of the family and community taking up the main share of household chores as the men continue in livestock keeping. Livestock is primarily a man's business and source of prestige. Customary law, cultural attitudes and rigidity to gender roles overburden women. Boy child is preferred to the girl child leading to preference on education of the boy child. This is evidenced by low enrolment rate in schools for girls, and has led to limited opportunities for the girl child to acquire the necessary skills and training to take on any meaningful role in development. Thus a high percentage of the female population is illiterate.

Livelihoods and ecosystem services

The Mount Kulal area is remote and living standards are low with majority of people living below the poverty line. The inhabitants of the landscape surrounding Mount Kulal rely on the ecosystems for herding and farming livelihoods while in turn having an undeniable impact on it (Watkins & Imbumi, 2007). The communities have adapted their subsistence practices to incorporate and increasingly rely on the forest and adjacent semi-arid vegetation for forest products and services. In a study conducted in 2015 (Cuni Sanchez, 2016), the following ecosystem services detailed in Annex 7: *Ecosystem services and additional context information*, were mentioned for Mount Kulal: water, poles (for construction of local houses), fuelwood, herbs and medicine, minerals, fertile soils, shelter during conflict, fruit/honey, culture and dry season grazing.

Gatab, the main settlement on the top of Mount Kulal is heavily dependent on forest products. The forest products used most often are poles for construction of local houses. However, the people are allowed to collect dead wood for fuel wood, and cutting of living trees for fuel wood in the forests on the mountain is limited and controlled (Watkins & Imbumi, 2007).

Livelihoods in Arapal are based on pastoralism complemented with some subsistence farming on the top of Mount Kulal. Livestock and livestock products are the main sources of income in the communities. However, problems associated with livestock keeping include cattle rustling, diseases, lack of market outlets, lack of veterinary services, cattle dips and lack of pasture. Agricultural activities such as crop production are very limited.

The majority household members are not employed or are at home performing domestic tasks. Informal employment is seen to occupy many of the members of households interviewed during the Project Preparation Grant (PPG) phase. The frequency of incomes received was reported to be irregular and insecure. Currently, the ongoing drought is adversely affecting the livelihood of the communities. Government and NGOs have been supporting livestock keepers with destocking by buying weak animals, having them slaughtered and donated as food aid for vulnerable members of the community. Extension officers are also inadequate and lack means of transport.

Also notable around the sites closer to Lake Turkana are the strong winds. These winds have a strong potential to generate wind power. The Lake Turkana Wind Power project has been initiated to convert these winds into energy. The project is the biggest project involving exploitation of wind resources for generation of electricity power in Kenya and the whole of Africa.

Trade revolves around general shop merchandise and service industry. Commercial activities take place in major towns such as Laisamis and Marsabit with most of food commodities and basic shop groceries, mainly imported from other regions. Spatial price differences reflect high transportation costs due to poor road condition.

Land and Forest Management

The land tenure in the Mount Kulal location is communal with no individual or group ranch title. The authority of traditions, elders and chiefs has remained high in the villages due to their somewhat isolated location. The community management is based on traditional management structures and organized through the Umbrella

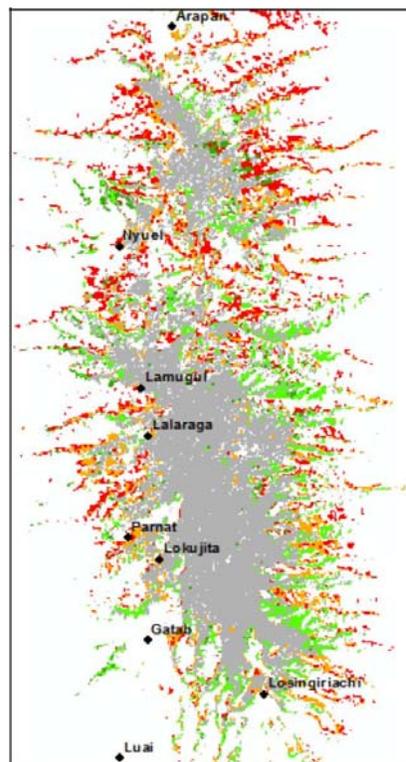


Figure 4. Mount Kulal Forest Cover in 1986 (grey), forest loss by 2014 (red and orange), and forest gain by 2014 (green) (Cuni Sanchez, 2016)

community-based organization (CBO) "wazee wa mazingira" (Elders of the Environment – WWM) active in all four sub-locations of Mount Kulal. The management of the forest is arranged through WWM regulations and local bylaws. The forest has been mapped by the WWM with help from the National Museums of Kenya (NMK). The forest is divided into three sections: one for settlement and farming; one for dry-season grazing; and one for pristine forest cover. The management of the forest forbids harvesting of living trees as well as wet-season grazing. Dry wood harvesting and dry-season grazing is allowed.

Targeted landscape 2: Mukogodo Forest, in Laikipia and Isiolo Counties - Lekurruki and Il Ngwesi conservancies, Kurikuri and Makurian group ranches (Laikipia) and Oldonyiro and Leparua conservancies (Isiolo)

The Mukogodo Forest landscape encompasses the Mukogodo forest itself, along with its four surrounding group ranches (Kurikuri, Makurian, Lekurruki and Il Ngwesi) and two conservancies in Isiolo (Oldonyiro and Leparua). Figure 5 and 6 below present the targeted landscape. It is located in the southwest of the Centre region. Oldonyiro conservancy is not displayed on these maps.

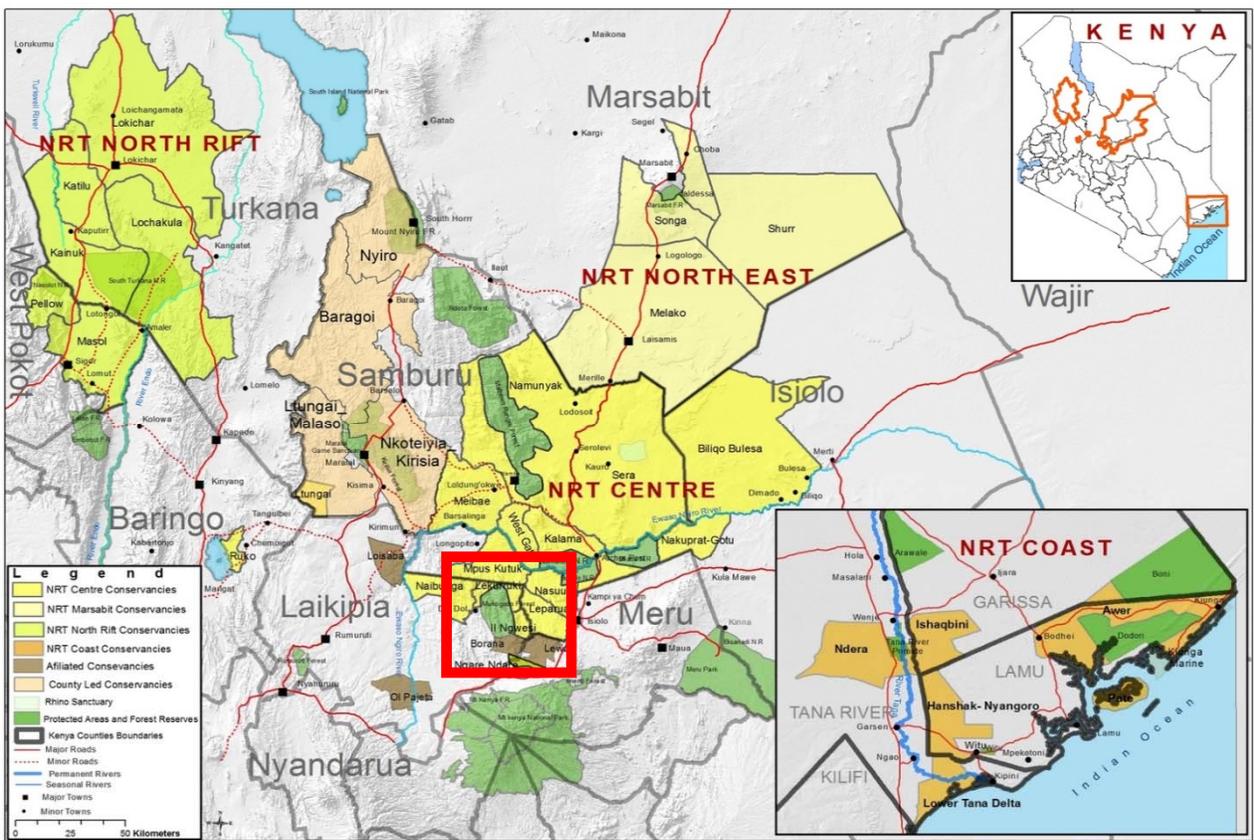


Figure 5. Mukogodo Forest landscape (Source: Northern Rangeland Trust - NRT)

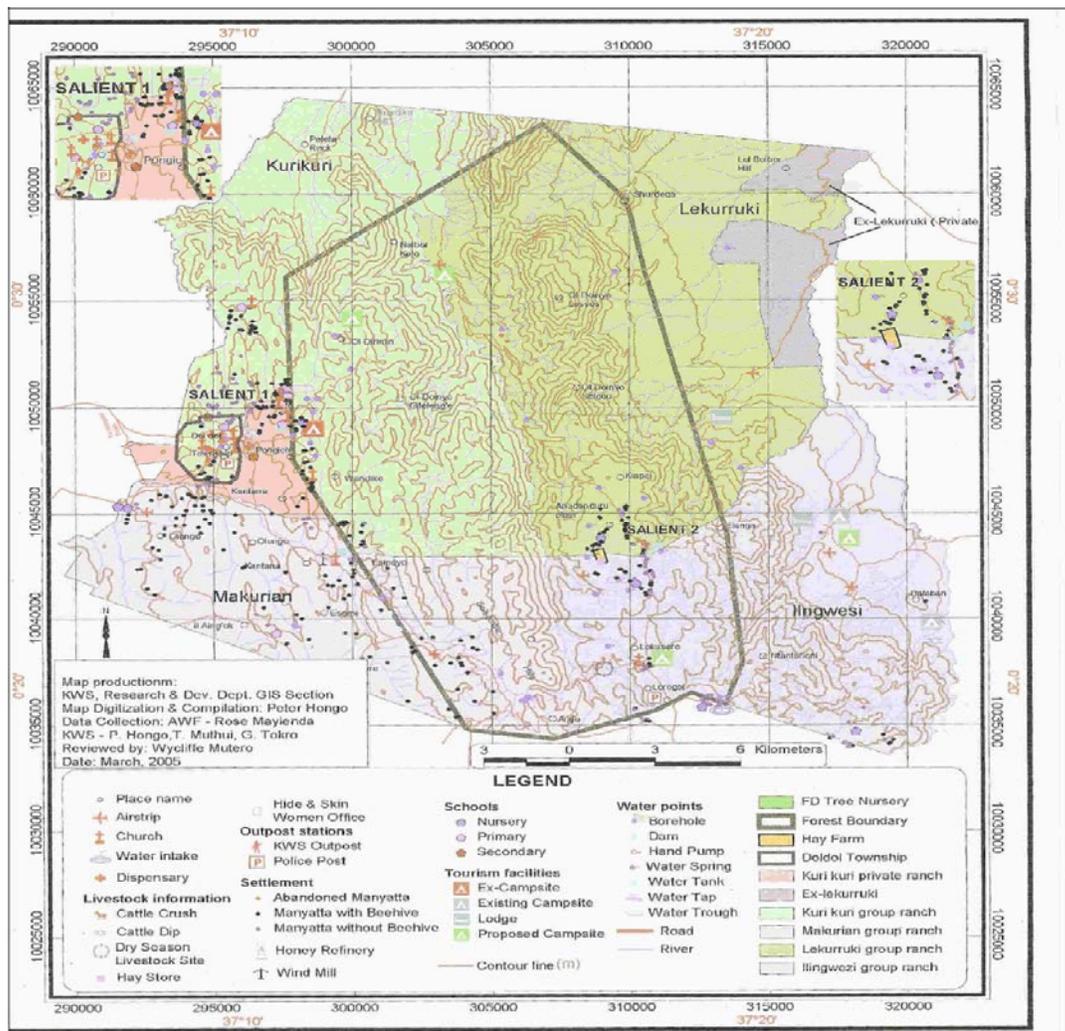


Figure 6 – Mukogodo forest and surrounding group ranches and conservancies: Makurian, Kurikuri, Lekurruki and Il Ngwesi

Laikipia County is located to the north west of Mount Kenya and covers an area of 9,462 km². The altitude of Laikipia County varies between 1,500 m above sea level at Ewaso Nyiro basin in the North to a maximum of 2,611 m above sea level around Marmanet forest. The other areas of high altitude include Mukogodo and Ol Daiga Forests in the eastern part of the county at 2,200 m above sea level. The county is endowed with several natural resources. These include pasture rangeland, forest, wildlife, undulating landscapes and rivers among others. Most of the wildlife is found in the large scale private ranches, which occupy over 50% of the total area of the county. The rest are found in group ranches predominantly owned by the Maasai, in the gazetted forests of Mukogodo, Rumuruti and Marmanet and the other uninhabited tracts of land in the county. Though this is an important natural resource, it has been a source of conflict between the farming and pastoralist communities.

Isiolo County is located in northern Kenya, bordered with Samburu (west), Marsabit (north), Wajir (east). It is an arid county, and borders Laikipia to its north east. The County capital, Isiolo Town is about 300km from Nairobi. Isiolo earmarked to be a resort city in Kenya's Vision 2030 and this is expected to result in rapid growth in Isiolo County and the neighboring regions. The county's main livelihood results from tourism, as the Isiolo Big Five (Grevy Zebra, Oryx, Somali Ostrich, Lion, reticulated giraffe) can be found in some reserves (Isiolo

County Government, 2017). Isiolo is also considered as being 100% ASAL, and almost no agriculture is possible in the county (Njoka, 2016).

The Mukogodo forest is a large dryland cedar and olive forest to the north-west of Mount Kenya. Surrounding it are rangelands that have been transformed into conservancies which in turn comprise a number of group ranches. Its landscape contains rugged terrains characterized by hilly masses of between 10 and 40 % slope. The elevation ranges between 1,600 and 2,100 m. The Mukogodo forest landscape receives an annual mean rainfall of 400-600 mm; the rainfall distribution is bimodal with peaks of long rains in March-April and short rains in October- December. The soils in the landscape were formed from basement rocks. The annual forest cover loss is estimated to be 383 ha (KWTA, 2015).

The area is drained by permanent and seasonal rivers, the main ones being Sieku and Kipsing. There are also several dams (surface and sub surface) along these rivers. In addition, there are several springs and ground water resources within the forest. The Mukogodo Landscape is an important watershed, which maintains water quality, quantity, and regulates flow. It is an important water catchment to the surrounding communities and the neighboring Counties (Okello, 2005) and is identified as one of Kenya's important water towers (KWTA, 2015)

Mukogodo forest is a source and habitat for wildlife and livestock during the dry season to both the local and neighboring communities.

Biodiversity

The indigenous vegetation types in Mukogodo landscape was found to have seven broad vegetation classification types (Okello, 2005)

1. Closed forest: It is comprised of a continuous closed canopy of the dry upland type. The forest is relatively dense with minimal herbaceous growth. Trees are spaced at 3-5 m apart, with a clear bole of over 7 m, usually clothed with lichens, ferns and orchids;
2. Closed woodland: The closed woodland has a variable mix of *Euclea divinorum*, *Rhus natalensis*, *Scutia myrtina*, *Carissa edulis*, *Acalypha fruticosa*, *Maytenus heterophylla*, *Aspilia pluriseta*, *Acacia brevispica*, *Lippia javanica* and *Croton dichogamus*. This vegetation type is often penetrated by trees;
3. Open forest: The open forest is a transition between closed forest and closed woodland. The dominant tree species include *Pappea capensis*, *Combretum molle*, *Cussonia holstii*, *Acokanthera schimperi* and *Euphorbia candelabrum* on the higher well drained grounds and *Acacia xanthophloea*, *A. seyal*, *Balanites aegyptiaca* and *Ficus spp.* along the water courses. Shrubs particularly dominate the degraded areas;
4. Open grassland: There are no pure grasslands found in the Mukogodo landscape because most of the grasslands areas are characterized by scattered trees. Grasslands were mainly dominated by *Themeda trindra*, *Chloris roxburghiana* and *Pennisetum schimperi* grasses;
5. Open scattered trees: This vegetation type was found to be restricted to the lowland plains and characterized by *Acacia-Commiphora* association, scattered stands of *A. drepanolobium* and *A. nubica* found in areas liable to seasonal flooding, penetrated by *Boscia coriacea*, *Maerua spp.* *Carissa edulis*, *Croton dichogamus* *Grewia spp.* and various succulents of *Aloe*, *Sansevieria* and *Euphorbia spp.*, as well as grasses;
6. Very open scattered trees: Same vegetation types as on the open scattered trees, but more sparse.
7. Degraded grassland: These were mainly the overgrazed areas, which were characterized by lack of grass cover and the species unpalatable to livestock.

Their respective density and coverage are described in Table 5 below.

Table 5. Density, basal area and volume of trees with DBH more than 5 cm in Mukogodo landscape

Vegetation cover	No. Trees	Basal area	Volume
	Ha ⁻¹	M ² ha ⁻¹	M ³ ha ⁻¹
Closed forest	131	12.2	219.1
Closed woodland	45	3.5	116.6
Open forest	68	3.4	106.3
Open grassland	68	3.4	106.3
Open scattered trees	63	3.2	96.4
Very open scattered trees	60	3	91.3
Degraded grassland	10	1.1	47

(Okello, 2005)

The Mukogodo landscape possesses a total of 66 families representing 114 genera and 155 species of useful and commonly used plants (Okello, 2005).

In terms of fauna, the Mukogodo Landscape is rich in wildlife of touristic interest, hence a potential tourist destination. The wildlife species include Elephant (*Loxodonta africana*), Buffalo (*Syncarus caffer*), Defasser waterbuck (*Kobus ellipsymnus*), Bushbuck (*Tragilaphus scriptus*), Red duiker (*Cephalophus natalensis*), Impala (*Aepyceros melampus*) and various rodent species. Among the primates are the black and white Colobus Monkey (*Colobus guereza*) and Olive baboon (*Papio anubis*). The carnivorous family/category is comprised of the Lion (*Panthera leo*), Leopard (*Panthera pardus*), Spotted Hyena (*Crocuta crocuta*), and Genet cat (*Geneta geneta*). The fauna inventory indicates that the landscape is habitat to about 209 birds' species, 11 small mammals and 34 large mammal species. The Mukogodo Landscape is also a rich bird area, with a total of 209 bird species within 55 families, and hosts 101 species of butterflies (Okello, 2005).

Management

The Mukogodo forest is classified as a forest reserve (30,189 ha) managed by the IL MAMUSI CFA (Il Ngwesi, Makurian, Mukogodo aka. Kuri Kuri and Sieku aka Lekuruki). The CFA consists of the four group ranches surrounding the forest (Okello, 2005), including the Lekurruki and Il Ngwesi group ranches which have established community conservancies that are currently operating under the umbrella of the Northern Rangeland Trust (NRT). Each group ranch provides three forest rangers/scouts to monitor forest activities within the forest, supported by the NRT. The rangers have partnered with the chiefs and elders in each group ranch in order to create an extended network for forest monitoring and sensitization of community members on forest management issues. The forest is further protected through local bylaws upheld by both the CFA committee and the forest rangers. All activities taking place in the forest need to be facilitated and approved by the CFA before being undertaken. The management plan and the local bylaws are based on traditional management structures that have existed in the Mukogodo forest for centuries. For example, tree cutting and uprooting is not allowed but sustainable pruning of fodder trees is.

The lush indigenous forest of Mukogodo borders the vast plains of Lekurruki, dotted with Acacia and Newtonia trees. The conservancy encompasses portions of the forest, giving it a unique diversity of habitats and species. The conservancy was registered in 1999 and covers an area of 11, 950 ha. In January 2009, Lekurruki Conservation Trust contracted 18 security rangers to enhance stability in the area. Under NRT Trading's

BeadWorks business, 133 women in Lekurruki have now been trained in beadcraft, leadership, accounting, and marketing skills.

Il Ngwesi was one of the first community-led conservation initiatives in northern Kenya, set up with a vision to sustainably manage the environment in order to both graze livestock and conserve wildlife, which it was hoped would in turn, encourage tourists. The conservancy was registered in 1995 and covers an area of 9,470 hectares.

The Oldonyiro Community Conservancy (OCC), in Isiolo lies on the border of Samburu and Laikipia Counties and also operates under the NRT. It is surrounded on all but its western side by NRT member community conservancies, and borders the Ewaso Nyiro River. Over the past few years it has struggled with high levels of insecurity and elephant poaching and degraded rangelands. It is known among the locals as the elephant superhighway, due to the size of the path carved out from years of elephant travel. It is also important habitat for the Grevy's zebra, listed by IUCN as endangered. The OCC has a core conservation area of 52,500 ha and employs 22 members of the community.

The Leparua Conservancy, also in Isiolo but connected by its western border to the Mukogodo forest through the neighboring Il Ngwesi group ranch, was registered in 2011 and covers 34,200 ha. Leparua is also part of the NRT, under its "Grazing Works" program, a business line of NRT Trading. Leparua is home to several pastoralist communities that share the same grazing pastures, which has led to conflict in the past, as competition for natural resources increases.

Population

The main ethnic group in the project area is the Maasai, more specifically the Laikipia Maasai, though the two Isiolo conservancies are mainly Samburu and Turkana in Oldonyiro and Ndorobo, Turkana, Somali, Borana, Samburu in Leparua.

The area is also home to the indigenous hunter-gatherer community Yiaku (Yaaku) also known as Mukogodo Maasai. The Yiaku is a community indigenous to the Mukogodo forest, their livelihood strategy has traditionally been characterized by hunting/gathering. In the 1920^s-1930^s most of the Yiaku were assimilated into the Maasai community due to their marginalized position and adopted the pastoral lifestyle and the Maa language, and they therefore became known as the Mukogodo Maasai. Some of the traditional hunter/gatherer activities such as beekeeping have been maintained.

In Laikipia, vulnerable groups such as women and children are usually more negatively affected than men by events such as drought. This is due to the position of women in households whereby they are expected to cater for the family in terms of food, water and general labor such as tilling of land. During times of water stress, women are the ones expected to cover long distances in search of water. To add on this, women in arid areas such as Laikipia have access to fewer income generating activities than men. They are also weighed down by negative cultural beliefs and are also limited in mobility, which often increases their vulnerability to sudden weather-related natural disasters. Drought and erratic rainfall force women to work harder to secure food, water and energy for their homes. Girls drop out of school to help their mothers with these tasks. This cycle of deprivation, poverty and inequality undermines the social capital needed to deal effectively with sustainable livelihood options. In Mukogodo and surrounding ranches the sampled groups indicated that they do not receive any special services or relief from the government.

A summary of the characteristics of the different communities in the Mukogodo forest landscape is available in Annex 8, along with a presentation of the social services and physical infrastructure in the region.

1.2. CURRENT SITUATION

1.2.1. Main environmental threats

The main factors posing a threat to the environment in the project area are strongly interrelated. They can be summarized as follows:

Deforestation and land degradation leading to the loss of ecosystem services

Despite their significant importance in the communities' livelihoods, forests and lands are threatened by deforestation and degradation on both project landscapes. It is estimated that the MKBR has lost approximately 28 ha of forest per year between 1986 and 2014. Over this period, Mount Kulal therefore lost 20% of its forest cover (Cuni Sanchez, 2016) and Mukogodo forest is losing 383 ha of its forest cover annually (KWTA, 2015). This increases the pressure on existing forests and on their natural resources to provide their vital ecosystem services.

This is due to unsustainable forest use by communities, which includes:

- Logging by pastoralists for fuel wood, building materials and for the construction of livestock enclosures;
- Overgrazing by livestock, which removes the understorey and prevents forest regeneration;
- Unsustainable pruning and cutting of lower branches and young seedling for fodder. As livestock numbers increase, pasture / forage resources are becoming overgrazed. Overgrazing is related to the fact that pastures are poor and in constant deterioration, also the livestock breeding system is dominated by an extensive model (i.e. unimproved animals and pastures and declining productive capacity).
- Transition of forest land to agriculture due to agriculture expansion and intensification;
- Grass fires, lit by pastoralists to regenerate pastures, further eroding the forest edge;
- High reliance on firewood and biomass products such as charcoal for energy. In the Mukogodo region, this is the case for 97% of the population.

These practices are driven by population growth which rises demand for land. Influential individuals have corruptly acquired lands, initially held in trust by communities, for private and commercial purposes. Insecurity due to ethnic conflicts with neighboring communities also pushes pastoralists to marginal and drier areas leading to their degradation.

The reduction in the extent and degradation of the remnant natural forest resources can be attributed to the following:

- ✓ The direct causes of deforestation include the high pressure on forest resources for fuel, construction etc., cultural clearing, bush fires.
- ✓ Due to a lack of alternatives, most of the energy production in the targeted landscape is derived from fuelwood and biomass products such as charcoal, leading to serious deforestation and opening formerly protected soils to degradation. Charcoal production is a source of energy for large parts of the population, including 26% of the population of Laikipia. It is said to contribute KES 32 billion (USD 300 million) to the Kenyan economy. Its commercial potential is therefore undeniable, but its production has been unsustainable in Kenya for many years. In targeted conservancies, Acacia trees have decreased due to excessive charcoal burning.

As forest recedes, dry-season grazing areas are becoming permanent grazing areas, preventing forest and land regeneration and enhancing land degradation. This leads to loss of biodiversity and undermines food production which decreases food security. Invasive species that have been introduced to reverse degradation have led to further degradation, such as *Prosopis juliflora* and *Leucaena*. Other invasive species present in the

area include *Opuntia* and *Accacia Reficiens*. For instance, in targeted conservancies, *Opuntia spp.* have spread in degraded areas and due to dispersal by elephants and baboons which feed on their fruit, as well as people for fencing homesteads. *Sansavieira spp.* have also spread as a result of overgrazing and land degradation.

ASAL communities have continued to rely heavily on pastoral livestock production systems. The over stocking of livestock is therefore the key driver for degradation in ASALs as it leads to overgrazing and destruction of existing vegetation.

Land degradation has indirectly triggered and increased conflict risks in Kenya especially among rural communities. As forest cover decreases, ethnic groups who have no traditional right to the forest start using it, generating conflict over its limited resources. In addition, since they are not members of the traditional protectors of the forest, they have no long term interests in forest conservation.

Climate Change and variability

Kenya is a net emitter of GHG, and the Land use, land use change and forestry (LULUCF) is the second most important contributor with 20 million tons of CO₂ eq. per year, which corresponds to 37.55% of the total country's emissions, as illustrated in the table below.

Table 6. Emission Pattern by Sector and GHG type

No.	Sector	2000 Emissions (CO ₂ e - Gg)				TOTAL	TOTAL as %
		CO ₂	CH ₄	N ₂ O	HFCs		
2	Energy sector	7,227	1,932	601		9,760	17.76
3	Industrial process sector	694			118	812	1.48
4	Solvent and other product use					-	-
5	Agriculture sector	-	13,041	9,498		22,539	41.01
6	Land use, land-use change and forestry	20,571	57	9		20,637	37.55
7	Waste	7	697	502		1,205	2.19
	TOTAL	28,499	15,726	10,611	118	54,955	100

(Source: Government of Kenya, 2015)

Both project sites involve forests that are located in regions that are described as semi-arid, arid and even very-arid, which makes them highly vulnerable to any change in environmental conditions, in particular to climate change. Among other factors, El Niño and La Niña make Kenya prone to cyclical prolonged droughts and serious floods, especially in the ASALs. According to Kenya's Second National Communication, "droughts are projected to become more extreme over the coming decades" Overall, it mentions that the cost of climate change impacts, and especially of droughts and floods, could be equivalent to 2.6% of Kenya's GDP by 2030.

In ASALs, drought causes the starvation of cattle herds and conflict over the use of land. They also have a direct impact on deforestation and land degradation, as cattle will overgraze or graze in the forest to survive. Increased climate variability can easily disrupt livelihoods as "75 per cent of the total agricultural output is produced on these small-scale farms rendering the sector highly vulnerable to extreme weather events and the changing climatic conditions of shifting rain patterns and drought. Climate change is adversely affecting the stability of the sector." (NEMA, 2015)

Water scarcity

As a water scarce country, access to water is a crucial issue and a possible important environmental threat. In particular, ASALs already receive less than 900 mm of rain each year. Water resources are affected by inter- and intra-annual rainfall variability, including the extremes of flooding and drought.

Forests play an important role in preserving water availability and quality. As an example, they help control erosion which is very high in the drylands where rainfall intensity is usually high, yet very short, with high evapotranspiration rates. Thus, in landscapes such as Mount Kulal, which is a water tower located in a 100% arid county, water is of critical importance for the survival of human, flora and fauna of the region including livestock. Water resources are however threatened by poor management practices, poor infrastructure and lack of water catchment protection. This could ultimately have an enormous impact on the region's water supply which depends on this water tower. The same is true for the Mukogodo forest given its important function as a water tower for its landscape. Pressure from human use and limited management capacity, even where WRUAs exist, constitute a threat for water access in the region.

Droughts constitute a major threat to both human lives and biodiversity. The Naibunga conservancy, which is also part of the Mukogodo landscape, notes that "in recent years, major droughts have occurred in 1964, 1984, 1992, 2000, 2009 and 2013-2015". The frequency and severity of droughts has increased due to climate change and degraded land. They mention that "this has increased human-wildlife conflict due to scarcity of water, and most people migrated with their livestock outside the conservancy. The community is dependent on relief food during the dry season. The 1984 drought was named *olamei lo nchonito*".

Climate change may further reduce the availability of water resources through altered rainfall patterns, higher evaporation, lower lake levels, accelerated loss of glaciers and rising sea level." (NEMA, 2015).

Loss of biodiversity

According to IUCN, Kenya possesses a high level of biodiversity. As an example, it ranks second in terms of mammalian species diversity. This generates important tourism revenues, equivalent to approximately 25% of GDP. However, threats to biodiversity in Kenya are multiple, and include human-wildlife conflict, poaching, overexploitation and human encroachment (human settlements and expansion of their livelihood activities of agricultural and livestock development) due to population increase (NEMA, 2015). Climate change also threatens biodiversity as it causes changes in habitats and an increase of infectious diseases leading to death of wildlife population.

MKBR is an example of a location where human encroachment threatens biodiversity. As the area is recognized as a UNESCO MAB Reserve, its characteristic endemic species are under threat because of weak management capacities.

In the Mukogodo landscape, various additional threats to the environment and biodiversity have been identified, including :

- Invasive plant species: *Opuntia spp.* have spread in degraded areas and due to dispersal by elephants and baboons which feed on their fruit, as well as people for fencing homesteads. *Sansavieira spp.* have also spread as a result of overgrazing and land degradation;
- Elephant impact: In the dry season elephant numbers are high leading to the destruction of trees. This also causes conflicts with elephants around water sources and due to presence of large numbers
- Harvesting of plant species: *Aloe spp.* have decreased due to harvesting of roots for local brewing. Sandalwood is threatened in some places due to over-harvesting
- Wildlife predation on livestock.

Poverty and conflict

ASALs have some of the highest poverty levels and lowest levels of human development in Kenya, with over 60% of the population living below the poverty line (Njoka, 2016). High poverty rates in ASALs constitute an important environmental threat, as poverty leads to the continued tilling of already degraded areas and forces further expansion into fragile areas with no proper incentive for sustainable land management (SLM). Population pressure is causing people to overexploit and carry out unsustainable practices in fragile areas.

The causes of poverty in Kenya are multiple, and include illiteracy and poor health services, the lack of employment opportunities, poor infrastructure to access markets, ethnic conflicts, among several others. Poverty thus generates a high dependence on natural resources for survival.

Conflicts arise mainly over pasture and water. Boundary conflicts exist between Isiolo and Laikipia, and between group ranches. Encroachment of livestock from neighboring areas is also an increasingly important source of conflict. In Mount Kulal, invasions from by ethnic groups who have no traditional right to the forest. They are not members of the traditional protectors of the forest (WWM) and therefore have no long term interests in forest conservation.

1.2.2. Baseline initiatives (co-financing) and other investments

Several projects and programmes linked to FLR (either addressing the causes of degradation or setting up the basis for restoration) are being implemented in the country. The TRI child project will create synergies with the following projects and programs. The total co-financing volume from the project is USD 12.5 Million.

Baseline projects providing co-financing.

FAO Support to the attainment of Vision 2030 through devolved land reforms in community lands of Kenya (Land Programme). Timeline: August 2016 – July 2021 (Phase I). Budget: USD 11,757,800 (EUR 10,441,000)

Kenya's 2010 constitution sought to increase people's access and control over land, given that 70% of the land was still held under customary tenure system. This insecure access to land has remained an "emotive, contentious and an obstacle to social cohesion and economic growth" given the ways in which it limits capacity to "construct livelihoods, overcome poverty and malnutrition, and improve food nutrition and security". Devolution, which involves "relocating power away from a central focal point" (Fisher) was one of the key concepts articulated in the constitution, and several bills have subsequently been implemented or are being debated in this sense. Along with devolution came the establishment of County Land Management Boards (CLMBs) whose mandate is "to manage all public and unregistered community land, to keep copy of the registry and to conduct research on historical land injustices that need to be addressed including exercising the right of women's access to land", but also to plan for land use and to coordinate with communities.

In the midst of this transition, there is a need to strengthen the legal and policy framework at the county level, and build capacity for improved land management. The Land Programme's overall objective is "to improve food security through equitable and secure access and management of land for better livelihoods and socioeconomic development in all counties as per Vision 2030." The Land Programme is expected to last for 15 years and be implemented in three 5-year phases. Phase I focused on addressing community land rights and responds to the needs of ASAL counties around land (communal pastures, natural resources management and conflicts, establishment of registries, etc.). Its four main expected results are:

- Land administration and management established in selected counties;
- Participatory land use planning initiated and planning methodology established in selected counties;
- Land Policy and legal framework for improved land governance at county established and rolled out in line with the Voluntary Guidelines on the Responsible Governance of Tenure;
- Knowledge management and capacity of research institutions on national land issues strengthened.

The TRI Kenya project will work hand in hand with the Land Programme, as the latter strengthens the policy and administrative foundations that will enable TRI Kenya to reach its full potential. The Land Programme will provide a co-financing volume of USD 5 Million.

FAO/European Union (EU) Reviving ASAL Economies through Livestock Opportunities and Improved Coordination (RAELOC). Timeline: September 2015 – August 2018. Budget: USD 6,757,000 (EUR 6,000,000)

RAELOC aims to contribute to the Ending Drought Emergencies (EDE) strategy which builds on the National Policy for the Sustainable Development of Northern Kenya and other Arid Lands. The EDE's objective is to strengthen the resilience of livelihoods in ASAL to the effects of drought and climate change, using two main strategies: i) strengthening the basic foundations for growth and development, such as security, infrastructure and human capital and ii) strengthening the institutional and financing framework for drought risk management (DRM). The EDE is operationalized through six common program frameworks. RAELOC supports the EDE through improved food and nutrition security of the targeted population, more specifically through livestock opportunities and improved coordination. RAELOC, which is now mid-way into its implementation, supports the following outcomes and outputs:

Outcome 1: Improved Resource utilization at various levels (Donor, GoK, IP) through streamlined coordination mechanisms and improved field-level implementation

Output 1: Relevant information informs the targeting and strategies of county governments, development partners and national government Programmes.

Output 2: Quality of implementation improved through the provision of technical support and the scale up of successful rangeland management methodologies.

Output 3: Gender, HIV/AIDS and nutrition are mainstreamed in food security initiatives at national, county and field level.

Outcome 2: Improved livelihood of livestock keepers through the development and implementation of a regional strategy to control *Peste des Petits Ruminants* (PPR), Sheep and Goat Pox (SGP) and Contagious Caprine Pleuro-Pneumonia (CCPP)

Output 4: Disease-control strategies which tie into regional control strategies for small stock developed and implemented

RAELOC targets all ASAL counties, however, a specific focus and resources are being placed on the following seven counties: Turkana, Samburu, Isiolo, Marsabit, Kitui, Tana River and Garissa.

During its second year of implementation, the FAO supported Outcome 1 by taking part and providing advice to the management structures of the Common Framework Pillar 4 (Sustainable livelihoods), Pillar 6 (Institutional Development and Knowledge Management), and to the ASAL Donor group meetings. The project also commissioned a study on coordination that recommended structures and actions to improve coordination. RAELOC also supported the accelerated implementation in Participatory Natural Resources Management in five counties, namely Garissa, Isiolo, Marsabit, Samburu and Tana River. With regards to Outcome 2, an eradication strategy for PPR was drafted and several disease surveillance activities were implemented.

RAELOC has also supported two food security assessments as well as a resilience baseline assessment in Kitui, Marsabit and Isiolo. A gender capacity needs assessment was also conducted to inform trainings on integrating gender and HIV/AIDS into agriculture that were conducted in Marsabit, Isiolo, Samburu, Tna River, Turkana, Garissa and Kitui counties.

The TRI child project will build on activities initiated by RAELOC on rangeland management methodologies and practices and will complement them through support to implementing concrete rangeland restoration activities in the targeted conservancies in Mukogodo landscapes and concrete sustainable livestock management practices, including grazing management plans, in the two targeted landscapes. Total co-financing from RAELOC will be USD 1 Million.

KEFRI programs

As mentioned in section 1.1.1, KEFRI undertakes research projects in five areas related to forestry. In addition, it leads five eco-region research programs which are organized by geographic coverage, namely: Central highlands, drylands, Rift Valley, Lake Victoria basin, and Coastal. In addition, the Forest Products Research Centre covers the entire country.

Among the projects relevant to this Kenya TRI project are the following:

- Integrated Programme To Build Resilience To Climate Change and Adaptive Capacity Of Vulnerable Communities In Kenya. This programme seeks to enhance resilience and adaptive capacity to climate change for selected communities in various Counties in Kenya in order to increase food security and environmental management. Hence, the programme develops and implements integrated adaptive mechanisms to increase community livelihood resilience to climate change. The programme includes the five following components:
 - Enhancing Climate Change resilience for improved food security in selected Counties;
 - Improving climate resilient water management systems to enhance food security in selected Counties in Kenya;
 - Increasing resilience to the effects of rise in sea level and shoreline changes through Integrated Shoreline and Mangrove Ecosystem Management in the Coastal region of Kenya;
 - Disaster risk reduction and increasing preparedness among targeted vulnerable communities; and
 - Strengthening institutional capacity and knowledge management on climate change adaptation.

The total project budget is USD 9,998,302 and the amount transferred to date is USD 4,956,906, meaning the project is at mid-term and can already generate some lessons learned to be used through this restoration initiative. It is active in 21 counties including Laikipia and Marsabit counties. The project is executed by three organizations: KEFRI, Tana and Athi Rivers Development Authority (TARDA) and Coast Development Authority (CDA).

- Capacity Development Project for Sustainable Forest Management in Kenya (CADEP-SFM). This 5 years project is funded by JICA and aims at strengthening the national capacity at the national and county level for sustainable forest management. It is implemented by the MENR, KFS, KEFRI and the County Governments. It covers the following five components:
 - Policy support implemented by the MENR: enhanced implementing and monitoring capacities of forest –related policies; prepare policy briefs based on the results of monitoring.
 - Pilot implementation through County Government and Private sector (implemented by KFS): Assist two pilot Counties to promote sustainable forest management; design and implement a scheme to work with private sector to promote the use of improved seedlings.
 - REDD+ Readiness Support implemented by KFS: Develop NFMS (National Forest Monitoring System); develop and evaluate FRL (Forest Reference Level); create 2020 Land Cover/Land Use map.
 - Tree Breeding implemented by KEFRI: Improve seed orchards and seed stands; support to establish seed orchards in the pilot Counties.
 - Regional Cooperation implemented by KEFRI: Collect and share good practice information for strengthening the resilience to climate change; hold regional cooperation meetings and forum.
- Kenya Water Tower Protection and Climate Change Mitigation and Adaptation (WaTer) programme: This 6-year project is funded by the EU and aims to “support the eradication of poverty through enhancing the productivity of ecosystem services in two of Kenya’s water towers: Mount Elgon and

Cherangany hills and its ecosystems covering 11 counties”, namely: Trans-Nzoia, Bungoma, West Pokot, Egeyo Marakwet, Nandi, Uasin Gishu, Kisumu, Kakamega, Busia and Siaya County. This EUR 5 million project, which was launched in June 2016, will improve the “quality and quantity of ecosystem services provided by Kenya’s water towers through increased forest cover, improved landscape and natural resources management and waste management systems leading to increased benefits to rural communities from forest, agriculture and agro-forestry land use systems.” (KEFRI, 2017). Its expected results are (EU, 2015):

- A baseline assessment of the biophysical and socio-economic status of the 2 Ecosystems undertaken to inform rehabilitation and conservation actions;
- To undertake a desk study on a Payment for Ecosystem services (PES) model for enhanced participation by communities, common interest groups, CBOs in rehabilitation, conservation and for improved livelihoods undertaken and proposals on similar initiatives recommended based on existing socio-economic conditions;
- Integration of selected rehabilitation and conservation technologies for improved Natural Resource Management, Sustainable Land Management and Agricultural Water Management in the 2 water towers demonstrated;
- Production and Management of Bamboo and High Value Tree Resources Enhanced in the two ecosystems;
- Development of nature based enterprises targeting women, the youth and people with disabilities promoted;
- A communication and knowledge management strategy for the programme developed and implemented; and
- Programme activities monitored and evaluated.

The proposed project will complement activities undertaken by the WaTer programme in two of Kenya’s water towers, applying best practices and lessons learned from this programme in water management activities that will be undertaken in the MKBR and Mukogodo forest. It will also draw on lessons learned from the CADEP-SFM project on tree breeding and will complement the policy support provided to forest management implementation and monitoring related policies. In terms of the knowledge base for the two targeted landscapes, the project will build on research activities initiated by KEFRI in the Upper Ewaso Ngiro River Basin and activities undertaken by the NMK in the MKBR. It will be filling the knowledge gap and characterizing their ecosystem services, including the potentialities in terms of NTFPS development. Total co-financing from KEFRI will amount to USD 6.5 Million

Other projects

Lake Turkana Wind Power (LTWP) project

Given the strong winds observed in the region between Lake Turkana and Mount Kulal, and also in line with Vision 2030’s priorities, the LTWP project is the largest investment in Kenya’s history. The Lake Turkana Wind Power Consortium is currently building a wind farm that will count 365 turbines, its associated overhead electric grid collection system and a high voltage switchyard. The project will also rehabilitate approximately 200 km of existing road between Laisamis and Loyangalani.

When it’s construction is completed, mid-2017, the LTWP will provide 310 MW of renewable energy to Kenya’s national grid, which is the equivalent of approximately 15% of Kenya’s energy capacity. This energy will be bought by the Kenya Power & Lighting Company Ltd at a fixed price for 20 years. Each turbine will produce 0.850 MW with a height of 44 m. The project has rented 150,000 acres (60,703 ha) of land to the Government of Kenya for 99 years for the project (ADB, 2011) (LTWP, 2017).

Activities in the MKBR thus include the following:

- Kulal Girls Secondary School solar system and water tanks;
- Solar pump installation;
- Livestock troughs; and
- Environmental clean-up.

Other projects with no specific geographic target within the Laisamis constituency include:

- Distribution of books, pens and desks at schools;
- Uniform purchases;
- Scholarships;
- Educational school trips;
- Vocational training;
- HIV/AIDS awareness campaign; and
- Road safety awareness campaign.

In the mid-term, WoC plans to increase its focus on livelihood activities, and also to organize more capacity-oriented activities, such as environmental awareness and education. This has already started, as LTWP has supported the creation of a platform to discuss inter-community issues, such as cattle rustling.

KEFRI

In addition to the co-financing project listed above, KEFRI is implementing the following research projects that would generate useful information to the TRI activities:

- Using integrated modeling framework to evaluate the impact of human-induced land use/land cover change on carbon dynamics in Upper Ewaso Ngiro River Basin (UENERB)
Funded by the United States National Academy of Science Partnerships for Enhanced Engagement in Research (NAS-PEER), this project seeks to “evaluate the performance of integrated and nested modeling framework in predicting the impacts of human-induced land-use/land cover changes to dynamics of water and carbon fluxes of wooded and open grasslands”. Specifically, its objectives are to:
 - Characterize the spatial and temporal variations of land surface properties and of corresponding biophysical and biogeochemical processes and the dynamics of carbon and water fluxes and determine the extent they are influenced by human activities;
 - Evaluate the performance of an integrated and nested modeling framework with regard to its ability to predict landscape-level carbon dynamics associated with human-induced and use/land cover changes;
 - Analyze the sensitivity of the dynamics of carbon and water fluxes to the human-driven changes in land surface properties as well as changes in biophysical/biogeochemical processes through process-based modeling;
 - Evaluate the vulnerability of the landscape’s productivity and the livelihoods of the society; and
 - Strengthening data sharing, dissemination and uptake of research findings and influence policies/programs.

This research project is currently under implementation in Il Motiok group ranch and Mpala Ranch in the Mukogodo landscape.

- Integrated collaborative research on climate change, water resources and food security in UENERB for sustainable management and enhanced ecosystem health

The UENERB covers an area of about 15,634 km² that extends from “high potential” areas of Mount Kenya and the Aberdares down across six ASAL counties in northern Kenya. The rangelands are becoming increasingly degraded due to an increase in pressure resulting from growing human and animal populations. The interconnections between the various ecological and human processes across the diverse ecosystems and multiple interactions is not well understood and prevents the definition of strategies for sustainable development. This research project, which has been approved but has not yet started, will therefore “carry out an integrated research to characterize UENERB to address challenges of ecosystem degradation, climate change, water resources and food insecurity for sustainable management and enhanced ecosystem health.” This USD 200,000 research project should deliver the following outputs (KEFRI, 2016):

- Innovative sensor systems for ecosystem monitoring;
- Geodatabase archive for the Upper Ewaso Ngiro river basin;
- Biophysical and socio-economic maps for the river basin;
- Climate change maps and statistics, trend information, drivers of change;
- Implementation strategy for appropriate interventions in value chains; and
- Water balance model estimates and water resource management plans.

KFS Forest Farm and Dry Land Forestry Program

This department of KFS provides technical support to the counties and advisory services for forest management. It also promotes biomass energy development and utilization, forestry technology development and transfer, private and farm forestry, dryland and forest conservation, farmer field school (FFS), and other participatory forest management. It has been putting forward innovations and strategies to support the achievement of Vision 2030 10% forest cover target as per KFS 1st Strategic Objective (“Increase Net Forest Cover”). Among these are the following (KFS, 2017):

- Promote on-farm forest plantations using a business approach;
- Farm Forestry Field Schools: Extension methodologies;
- The school greening program;
- Urban tree planting amenity program;
- Development of charcoal industry (Formation of Charcoal Producers Associations and value chain development);
- Woodland management planning for livelihood improvement;
- NTFPs development (Gums and resins);
- Partnerships and stakeholder participation in forestry development;
- Bamboo growing and value chain development;
- Engagement of County Governments in forestry development.

Strategy 1.5 on the 2015-2017 Strategic Plan is to “Increase tree cover on ASAL”. Its activities and related budget are as follows:

Table 7. KFS Activities and budget for increasing tree cover on ASAL (2015-2017)

Activity	Total budget in millions of KES	Equivalent in USD
Establish forest stations in the newly gazette dry land forests	197	1.904.750
Carry out tree planting within the newly gazette dry land forests	60	580.127

Protect gazetted ASAL forests	71.4	690.351
Promote management of woodlands through implementation of approved management plans	82.5	797.674
Organize groups within ASALs to develop and protect community forests	22.5	217.548

This GEF project will leverage the capacity building and infrastructure development and market value chain strengthening supported by this project, as well as the efforts to increase resilience of farmers to weather-related shocks. GEF investment will bring added value by strengthening national and institutional and technical capacity, as well as information systems that will strengthen the efficacy of decision-making for agricultural adaptation to climate change.

1.2.3. Remaining barriers to address environmental threats and the adoption of FLR

The baseline projects will make a significant contribution to addressing some of the main challenges the country is facing. However, they do not adequately address the barriers listed below that limit the ability of Kenya to achieve its restoration objectives as pledged to the Bonn Challenge. There are three types of barriers, namely policy related barriers, livelihoods, and capacity barriers.

Policy barriers

There are a number of ongoing FLR related initiatives being implemented by various institutions, but institutional **coordination at the national and county level is limited**.

Despite the various FLR and land management policies and strategies approved at the country level, there are currently **insufficient policy and legal frameworks at local level to manage forests sustainably and promote FLR**, which prevents or at least hinders the coordination of efforts in this area. As an example, county governments have no mechanisms in place for local community's involvement in the management of land and other community resources.

Additionally, where the policy framework exists, **implementation and enforcement practices are still weak**. The creation of CLMBs was certainly an important part of this process, but their specific responsibilities are often unclear. Efforts have so far focused on improving land tenure and defining strategic objectives for environmental management at the county level. However, implementation of FLR is still lagging, both at county level and at local level.

While recognized in the Forest Conservation and Management Act (2016), benefit-sharing from forest resources has not yet been operationalized nationwide, and there is a lack of clarity as to how benefits are to be shared. Currently, benefit-sharing is achieved through direct negotiations between KFS and conservancies. This means that the **policy framework for the development of non-timber forest products and services (NTFPS) is weak** and does not regulate or support their development in any ways. A policy has been drafted but has not been approved yet.

Livelihoods

The population of ASALs faces numerous environmental and geographic constraints in ensuring their livelihoods. Given the arid condition of the land, the opportunities for agricultural production are limited and communities turn to livestock to ensure their livelihoods. However, population pressure has led to **an increase in the livestock above the capacity of the land to sustain them**. As an adaptation measure, communities

progressively switch from cattle to small stock, since it requires less volume of grass and can be sold more easily. Still, livestock now competes with wildlife for pasture and often enters the forest when food becomes insufficient elsewhere. This dependence on livestock makes communities **highly vulnerable to climate variability** and in particular to droughts which are increasingly recurrent, threatening forests and biodiversity.

Access to water resources is also uncertain, as **water infrastructure is limited** and often distant. Current water management practices **insufficiently protect water catchments**, which are vulnerable to deforestation and land degradation.

General infrastructure, and in particular roads, is often lacking. On the Mount Kulal site, geographic isolation is a challenge for everyday life, and in particular for access to markets.

While there are NTFPS that could be commercialized, there is **limited information about ecosystem services and the potential for development NTFPS. Value chains and market access options for NTFPS are neither known nor structured**, and their potential for alternative livelihoods is largely unexploited.

Capacity

Human capacity for FLR implementation in ASALs is limited as communities **lack the capacity to design and implement SLM, sustainable ecosystem management, and FLR plans**. Community, local and national leaders lack awareness on FLR issues, and they also **lack the skills and knowledge on FLR and ecosystem management**. Limited human capacity also results from the **lack of knowledge sharing, partnership and collaboration** among FLR stakeholders.

Capacity is also hindered by the **limited role of women and youth** who are not empowered to make decisions and tend to be excluded from the processes, despite them having organized groups that can be mobilized in support of FLR.

At county level, there are also important capacity gaps in the institutions who **lack of institutional capacities to implement FLR**, despite the existence of EMC and CLMBs. In addition to the above-mentioned policy framework, institutions often lack the human resources with relevant capacity, for example with the appropriate technical background in terms of FLR or water catchment management.

Currently, an adequate **FLR knowledge and knowledge sharing mechanism is also lacking**. Expertise on relevant tools and knowledge on FLR is not widespread. FLR knowledge is concentrated within a few institutions like KEFRI, KFS and a few CSOs.

In terms of financial resources, **accessing finance for environmental projects** has long been a challenge, and often funds must originate from donor organizations. Barriers for local communities to access funding, either private or public are enormous as they **lack the capacity to present proposals** in a way that speaks to funding agencies.

1.2.4. Incremental reasoning

The activities of the project presented in the following pages have been designed in order to complement or build on the existing baseline projects, and to address directly the barriers that remain to be addressed after their implementation.

The TRI Kenya project will work hand in hand with the Land Programme, as the latter strengthens the policy and administrative foundations that will enable TRI Kenya to reach its full potential.

This project will build on activities initiated by RAELOC on rangeland management methodologies and practices and will complement them through support to implementing concrete rangeland restoration activities in the targeted conservancies in Mukogodo landscapes and concrete sustainable livestock management practices, including grazing management plans, in the two targeted landscapes.

It will complement activities undertaken by the WaTer programme in two of Kenya’s water towers, applying in water management activities that will be undertaken in the MKBR and Mukogodo forest the best practices and lessons learned from this programme and duplicating their activities in terms of nature-based enterprises development.

It will also draw on lessons learned from the CADEP-SFM project on tree breeding and will complement the policy support provided to forest management implementation and monitoring related policies.

In terms of the knowledge base for the two targeted landscapes, the project will build on research activities initiated by KEFRI in the Upper Ewaso Ngiro River Basin and activities undertaken by the NMK in the MKBR. It will be filling the knowledge gap and characterizing their ecosystem services, including the potentialities in terms of NTFPS development.

In the MKBR, the TRI project will closely work with the WoC initiatives, leveraging their ongoing and future activities on environment, education, water access and livelihoods; using their community platform to facilitate project implementation; and complementing their activities with concrete FLR activities on the ground.

Table 8. Baseline and GEF Alternative Scenario (incremental value)

Outcome	Baseline Scenario	GEF Alternative Scenario
<p>Outcome 1: The national and county level policy and regulatory frameworks are strengthened to support FLR in Kenya</p>	<p>At the national level, a number of laws and policies support FLR, starting with the Constitution and Vision 2030 which set the 10% land cover target. The Forest Act (2005), the National Forest Policy (2015), the Forest Conservation and Management Act (2016), and the Community Land Act (2016) constitute the foundations of FLR action in the country. The LRTWG has coordinated the assessment and mapping of restoration opportunities at the national level. A specific policy and legal framework review to guide scaling up of landscape restoration in Kenya was also conducted in 2016, calling for the development of a specific national restoration strategy.</p> <p>The devolution process seeks to transfer responsibilities to counties in many areas, including forest and land management.</p>	<p>The proposed project will support the LRTWG in developing a specific FLR national strategy.</p> <p>At the county level, it will work hand in hand with the Land Programme. GEF funding will complement the Land Programme by identifying policy gaps and enhancing the application of bylaws in the two target ASAL’s counties.</p> <p>These synergies are further highlighted by the fact that Phase I of the Land Programme, which will be implemented largely at the same time as the TRI Kenya project, will also focus on ASAL counties, and specifically in Marsabit and Laikipia. As the Land Programme plans on working closely with counties governments, the TRI Kenya project will be able to leverage on the ground the achievements of the Land Programme, including the stakeholder mapping that will be performed in the coming</p>

	<p>The FAO Land Programme is supporting this process from the perspective of land tenure to ensure that communities formalize their access to land and start implementing land management plans. The Land Programme also strengthens the policy and legal framework around land governance at county level. Phase I of the Land Programme focuses on ASALs.</p> <p>The FAO RAELOC project conducted a resilience assessment which focused among others on Isiolo and Marsabit. This assessment identified that these counties vulnerability resided largely in its limited livelihoods alternatives. It also promoted rangeland management practices and methodologies.</p> <p>There is no policy framework for NTFPS.</p>	<p>month by the Land Programme. Such synergies have already been demonstrated during the PPG stage, the Land Programme project team having participated to the data collection field mission.</p> <p>Both project landscapes are set to benefit from the work performed upstream by the Land Programme, as the Mount Kulal forest is not yet registered, and as group ranches and conservancies seek to achieve control over their community land.</p> <p>The GEF funds will actively support the development of a national NTFPS policy in order to provide a framework for alternative livelihoods. This need has been confirmed by the RAELOC’s resilience assessment, among others. It will help further the FLR objectives of this GEF-funded project by generating incentives for communities to protect and restore forests in order to benefit from their ecosystem services.</p>
<p>Outcome 2: 152,661 ha are under improved land management (including 8,700 ha directly restored and 55,352 ha indirectly restored)</p>	<p>Deforestation is driven by overgrazing which is reinforced by population growth and recurring droughts due among others to climate change.</p> <p>While restoration opportunities were assessed and mapped at the national level, the assessment has not yet been downscaled at the local and site specific level.</p> <p>The Land Programme is helping communities secure tenure of their lands, prevent land grabbing and implement participatory land management.</p> <p>FAO RAELOC focuses on implementing coordination mechanisms for drought management and field-level implementation and scale up of</p>	<p>The GEF funds will build on KEFRI’s research activities and results, including Laikipia County ecosystem services assessments and tree breeding experiences.</p> <p>GEF funding will be used to complement all baseline initiatives by supporting concrete restoration activities on the ground in rangeland and forest areas. The GEF project will support the assessment of the level of land degradation at county/site level (downscaled ROAM) including participatory mapping and stakeholder mapping.</p> <p>While the focus on NTFPS is rather innovative compared to other current initiatives in the country, it is in line with both the Land Programme and RAELOC as it provides alternative</p>

	<p>successful rangeland management plans.</p> <p>KEFRI's research builds the knowledge base on 1) measurement of impacts of human-induced land use and land cover change on carbon, 2) the interrelations between climate change, water and food security for SLM and ecosystem health, and 3) tree breeding. The WaTer Programme aims to protect two water towers while addressing climate change issues.</p> <p>KFS also aims to increase tree cover in ASALs through forest stations, tree planting, forest protection, management plans, and the organization or groups to protect forests.</p> <p>Multiple projects and initiatives support sustainable natural resources management in Kenya, either directly or indirectly. Among them WoC intervenes around Mount Kulal in support of access to education, health and water management as well as livestock management. In the mid-term, WoC plans to increase its focus on livelihood activities, and also to organize more capacity-oriented activities, such as environmental awareness and education. This has already started, as LTWP has supported the creation of a platform to discuss inter-community issues, such as cattle rustling.</p>	<p>livelihoods that will decrease pressure for deforestation and generate an incentive to protect and restore forests and landscapes. NTFPS will decrease the pressure for holding herds of livestock above the capacity of the land to sustain them, and therefore limit desertification. In addition, by diversifying the population's sources of income, it also increases their resilience.</p> <p>This could not be achieved without the tenure security that is implemented by the Land Programme, as well as the participatory management it supports. By helping communities design and implement ecosystem management plans, the GEF funds will go one step beyond the Land Programme.</p> <p>GEF funds will also integrate water issues into the equation as part of the ecosystem-based approach. While the WaTer project is not implemented in the same geographic areas as this project, GEF funds will enable communities in Marsabit, Laikipia and Isiolo to learn from what is implemented by the WaTer program and replicate some of its aspects elsewhere.</p> <p>Finally, the restoration and bio-enterprise activities will complement a large number of initiatives already active on project sites but that do not specifically address FLR.</p> <p>Promoting restoration actions and bio-enterprises development, the GEF funds will complement WoC activities to enhance livelihoods, including its water related activities. WoC projects that support livestock management are even more related since, in addition to supporting improved livelihoods, they may also help protect the environment and the forest from</p>
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		<p>livestock intrusions in search of water or food. The TRI child project intends to leverage WoC's ongoing and future activities on environment, education, water access and livelihoods introducing an ecosystem based perspective while covering the incremental cost associated to implementing concrete FLR activities on the ground.</p>
<p>Outcome 3: Strengthened institutional capacities and financing arrangements are in place and facilitate large scale restoration and maintenance of critical landscapes</p>	<p>There are a number of ongoing FLR related initiatives being implemented by various institutions, but institutional coordination at the national and county level is limited.</p> <p>Both RAELOC and the Land Programme set important foundations for the development of local capacities to implement FLR.</p> <p>In addition, multiple public institutions and ministries are also involved in building capacities in topics related to FRL (KEFRI, KFS) or not directly related to FLR.</p> <p>In terms of financial mechanisms to support FLR, NETFUND finances green business incubation, research programs and organizes environmental awards which reward innovative ideas in environmental management. Its main topics include agri-business, energy, governance, resource-based waste management and water. About 40 projects have received NETFUND support to date.</p> <p>On the other hand, the FCMTF, when it becomes operational, will finance sustainable forest management and FLR.</p> <p>Finally, access to financial instruments that invest in environment projects exists, such as the Green Climate Fund (GCF). However, these funds are largely inaccessible to local communities</p>	<p>GEF funding will contribute to strengthen the coordination of FLR initiatives and promote FLR at the national level by supporting the establishment of a national restoration coordination mechanism building on the LRTWG efforts.</p> <p>GEF funding under this project will be used to strengthen capacities at various levels, from the counties capacity to implement FLR to the conservancies' capacity to submit project proposals and access FLR national and international financing.</p> <p>At the county level, a specific needs assessment will assess in a detail manner which capacities are required to enhance FLR implementation. This will be complementary to other initiatives in the region, in particular with the Land Programme.</p> <p>At the community level, capacity will also be enhanced in FLR and ecosystem management, which will complement again the Land Programme and RAELOC's efforts.</p> <p>GEF funding will directly contribute to increased access to finance mechanisms in FLR, as the ASALs counties have received a minimal share of NETFUND support to date. By operationalizing the FCMTF, this project will directly contribute to increasing funding opportunities in FLR in areas that are of particular</p>

	due to the technical capacities required to submit qualifying proposals.	interest to ASALs in general, and to the intervention landscapes in particular. Without GEF contribution, the operationalization of the FCMTF could be delayed, thus delaying its capacity to produce positive impacts on Kenyan forests. GEF funds will also directly support promising bio-enterprises from project sites to access financial resources by supporting linkages with potential investors and by facilitating their access to credit.
Outcome 4: Improved FLR monitoring, reporting and knowledge dissemination at national level (including for the NCP)	KEFRI's research projects, the Land Programme and RAELOC aim not only to achieve the specific objectives of their programs, but to share lessons learned in order to increase the knowledge base and improve future practices.	As part of the global initiative, GEF funds will contribute to share its experience within its community of practice, fostering South-South exchanges and sharing information at a broader scale, within the other child projects from The Restoration Initiative (TRI). These efforts will complement efforts made by baseline projects to disseminate information at the national level. This will contribute to building a strong knowledge base that will benefit the target populations beyond the reach of each program, and the advancement of restoration at large.

1.3. THE GEF ALTERNATIVE

1.3.1. Project strategy

The Restoration Initiative Program (TRI) is the result of a collaboration between three Global Environment Facility (GEF) implementing agencies, IUCN, the FAO and UN Environment with the purpose of making “a significant global contribution to restoring ecosystem functioning and improving livelihoods through the restoration of priority degraded and deforested landscapes” (GEF, 2015). This will be implemented in support of the Bonn Challenge, and in response to the expressed needs of the countries. The TRI takes the form of a number of national projects with a common structure, that are globally supported by a Global Learning, Financing and Partnerships project, with the aim of creating synergies and sharing lessons learned to be able to generate greater impact. 11 national, or “Child” projects have been identified to date.

The project **Restoration of ASAL of Kenya through bio-enterprise development and other incentives** (the TRI Kenya project) is one of the national Child projects under the TRI. It will be implemented by the FAO Kenya along with KEFRI, KFS, IUCN, NRT and NMK over five years.

The situation of the project sites, and more broadly of the ASAL regions in Kenya, is critical, with a dependency of the population on livestock for their livelihoods, increasing pressure on land and ecosystems, and an increasing frequency of droughts. For this reason, this TRI child project proposes an integrated approach that promotes bio-enterprises, more specifically ones that rely on commercialization of NTFPS, as alternative livelihoods in a way that generates an incentive for communities to protect their forests and landscape, and to promote FLR. Thus, the project will increase the resilience of targeted communities and lead to the direct restoration of 8,700 ha of deforested and degraded wood and shrub lands and indirect restoration of 55,352 ha.

This project has the potential to contribute to global climate change mitigation efforts by providing total mitigation benefits of 5,954,109 tons of CO₂e from 820,089 tons of CO₂e (direct) + 5,134,020 tons of CO₂e (indirect) over a period of 20 years. The direct GHG emission mitigation potential from the project derives from restoration activities of 8,400 ha of degraded wood/shrub lands and grasslands in ASAL and indirect restoration of 55,352 ha.

The TRI Kenya project is in line with the **ecosystem-based management approach** which takes into account and integrates the different set of interactions on a given ecosystem from which the communities depend. It will consider jointly the ecological, socio-economic, agricultural and cultural aspects of FLR and the role of all concerned stakeholders. In an effort to generate sustainable change, the project will not focus only on bio-enterprises, but it will also support an enabling environment for bio-enterprises development and more broadly for FLR. Through its *Policy development and integration* component, it will help strengthen the legal and policy framework relevant to the project, while its *Institutions, Finance and Upscaling* component ensures that all the structures and support mechanisms from the county to the national level are in place and allow to scale-up FLR initiatives in Kenya. The bio-enterprise development activities will be implemented along with concrete restoration and land management activities.

SLM is defined by the United Nations as “the use of land resources, including soils, water, animals and plants, for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions”. It “encompasses established approaches such as soil and water conservation, natural resource management and integrated landscape management. It involves a holistic approach to achieving productive and healthy ecosystems by integrating social, economic, physical and biological needs and values, and it contributes to sustainable and rural development” (FAO, 2017). The integrated approach adopted by the TRI Kenya project will contribute to the restoration of forest and rangeland areas through natural regeneration, tree planting and pasture seeding, which will stabilize the state of the soil and limit siltation, while ensuring that communities continue to benefit from the multiple ecosystem services which they derive from their forests.

The tools developed under the **Community-based Tree and Forest Product Enterprises** approach developed by the FAO will support the development of the bio-enterprises. This approach uses a participatory methodology called Market Analysis and Development (MA&D) that operates “within the framework of participatory forestry mechanisms that enable those people who have a direct stake in forest resources, to be part of decision-making in all aspects of forest management”. MA&D “is a participatory training methodology that aims to assist people in developing forest-based income-generating enterprises while conserving natural resources” (FAO, 2017) especially suitable for enterprises based on natural resources products that need to be protected or conserved because it links participatory natural resources management and conservation activities to income generating opportunities. Besides environmental sustainability, the methodology also takes into consideration social, technological, legal and commercial aspects, providing a wide scope for understanding relevant market systems and thus avoiding business failure. As the approach encourages planning and development of business strategies it also contributes to local communities’ investment preparedness, making it easier for them to access external capital and investments (Aoki, 2015).

1.3.2. Project objective, outcomes and outputs

Development objective

In line with TRI, the development objective of the TRI Kenya project is the following:

To contribute to the restoration of degraded and deforested landscapes in arid and semi-arid lands in Kenya for resilient economic development and livelihoods and improved ecosystem functioning, in support of Kenyan pledge to the Bonn Challenge.

Project objective

Its overall objective is to restore deforested and degraded lands through the FLR approach and enhance the socioeconomic development of local communities through the development of bio-enterprises of NTFPS in ASALs. Its goal is to reduce the overall proportion of degraded land by 20% in the areas covered by the project.

This will be achieved through the following four components which are aligned with TRI:

- Component 1: Policy Development and Integration;
- Component 2: Implementation of restoration programs and complementary initiatives;
- Component 3: Institutions, Finance and Upscaling; and
- Component 4: Knowledge, Partnerships and Monitoring and Assessment.

Table 9. Overview of project components, outcomes and outputs

Project: Restoration of arid and semi-arid lands (ASAL) of Kenya through bio-enterprise development and other incentives under The Restoration Initiative.		
Project objective: To restore deforested and degraded lands through the FLR approach and enhance the socioeconomic development of local communities through the development of bio-enterprises of NTFPS in arid and semi-arid lands.		
Component	Outcomes	Outputs
Component 1: Policy Development and Integration	Outcome 1: The national and county level policy and regulatory frameworks are strengthened to support forest and landscape restoration in Kenya	Output 1.1: An FLR strategy is developed, including a roadmap and a M&E framework to bridge the FLR gaps in the policy framework
		Output 1.2: Domestication of relevant international, and national NRM policies is facilitated at the county and local levels, especially as it relates to FLR
		Output 1.3: Policy framework for management and utilization of NTFPS is developed and adopted
Component 2: Implementation of Restoration Programs and Complementary Initiatives	Outcome 2: 152,661 ha are under improved management (including 8,700 ha directly restored and 55,352 ha indirectly restored)	Output 2.1: Ecosystem services are assessed and characterized and land use and land cover changes in selected forests and rangelands are assessed
		Output 2.2: FLR activities are implemented in the two targeted landscapes and ecosystem management plans and community action plans for selected landscapes are developed and implemented

		Output 2.3: Knowledge base on NTFPS in the two targeted landscapes and their commercial potential is generated
		Output 2.4: Bio-enterprises products and services are promoted and commercialized
Component 3: Institutions, Finance, and Upscaling	Outcome 3: Strengthened institutional capacities and financing arrangements are in place and facilitate large scale restoration and maintenance of critical landscapes	Output 3.1: Counties capacities in implementing FLR relevant policies are strengthened
		Output 3.2: Community land management committees are set-up and working in targeted project sites
		Output 3.3: Restoration initiatives are coordinated at the national level
		Output 3.4: Access to climate and restoration finance is improved
Component 4: Knowledge, Partnerships, Monitoring and Assessment	Outcome 4: Improved FLR monitoring, reporting and knowledge dissemination at national level and Project implementation based on result-based management	Output 4.1: A national FLR Knowledge Management system is developed and Implemented
		Output 4.2: South – South knowledge shared amongst TRI child projects.
		Output 4.3: Project monitoring system providing systematic information on progress in meeting project outcomes and output targets is implemented

Component 1: Policy Development and Integration

Outcome 1: The national and county level policy and regulatory frameworks are strengthened to support forest and landscape restoration in Kenya

While important legislation and policy changes have been undertaken in recent years at the national levels in the field of forest management and FLR, the success of this project and overall the consolidation of these policies, as highlighted in the recent FLR policy review conducted by KFS, call for further planning at county level and for the consolidation of regulatory frameworks at the national level. In addition to FLR, the question of benefit sharing needs to be further discussed and clarified through a specific NTFPS policy if these are to be put forward as an alternative and sustainable livelihood.

Output 1.1: An FLR strategy is developed, including a roadmap and a monitoring framework to bridge the FLR gaps in the policy framework

Activity 1.1.1 Review the policy and legal framework for upscaling landscape restoration in Kenya conducted in 2016, and develop a specific FLR strategy, including a financing investment plan:

- *Develop a road map for the FLR strategy*
- *Develop the FLR strategy, including an M&E framework and a financing plan*
- *Support the LRTWG functioning*

As mentioned in section 1.1.1, the LRTWG identified the most pressing FLR challenges and opportunities, along with maps and statistics presenting restoration options. This now requires some level of operationalization for these ideas to translate into an actual strategy for FLR. The TRI Kenya project will support the LRTWG to develop a roadmap for designing this strategy and to further develop the strategy. The approach proposed is participatory, with the LRTWG and experts undertaking consultative meetings with stakeholders and hosting a consultative workshop. KFS and KEFRI expertise

will lead the process to ensure good ownership. This support should be provided during the entire project duration, with a mid-term target being the development of the roadmap which should be undertaken during Project Year (PY) 1 and 2, and the final goal being the adoption of the strategy by the end of PY 4.

Output 1.2: Domestication of relevant international and national NRM policies is facilitated at the county and local levels, especially as it relates to FLR

Activity 1.2.1 Assessment of the existence and adoption level of specific forest/FLR policies at county level, including traditional land management systems: Along with devolution comes the need to adapt the related policy framework at local level, which is what will be undertaken in both Marsabit and Laikipia. This will be achieved with the support of external consultants who will undertake policy meetings with county officials and public officers. The project will review current FLR and NRM practices and existing legislative framework in both counties and identify policy changes or gaps that need to be filled to further domestication. Recommendations will be made to county governments. As it is a foundation of the activities of the project, this study will be conducted during PY 1.

Activity 1.2.2 Review the level of compliance of local and customary by-laws to the county and national policy framework: Along with a policy gaps analysis and a review of current FLR and NRM policies and practices, the project will also analyze the level of compliance of local by-laws to the county and national FLR policy framework and propose adjustments to ensure coherence of the overall policy and legal framework. This segment of the study will also be conducted during PY 1 and early PY 2.

Activity 1.2.3 Make recommendations towards the amendment of existing laws at the county level to address any policy gap: Building on the studies undertaken under the previous activities, this activity will entail the provision of technical advice by consultants to update Marsabit's and Laikipia's legislation. The Project Management Unit (PMU) will also support the process by sharing knowledge and fostering dialogue around the issues at stake. This will involve holding an awareness raising workshop, facilitating policy dialogue meetings and overall advocacy for the new legislative framework. The PMU will have a clearer vision of the actions and timeline for this activity and for activity 1.2.4 by the end of PY 1, but it is likely that it will be ongoing for at least PY 2, 3 and 4.

Output 1.3: Policy framework for management and utilization of NTFPS is developed and adopted

Activity 1.3.1 Support the development of the "Natural resources access and benefits sharing policy". Given the current lack of clarity as to how benefits derived from forest services are to be shared, the project will attempt to fill this policy gap by facilitating the process of finalizing and obtaining approval for this policy. This will be achieved through the provision of external technical advice but also the mobilization of expertise from KEFRI and KFS and the organization of participatory meetings and a consultative and validation workshop, with the aim of obtaining approval by the middle of PY 3. Building on this, the project will support the development of a benefit sharing agreement between KFS and IIMAMUSI CFA in Mukogodo forest.

Activity 1.3.2 Support the development of a NTFPS management strategy: Closely linked to the benefit-sharing policy, and essential for the long term sustainability of bio-enterprises promoted under this project, is the development of a NTFPS management strategy that would provide priorities, guidelines and support for the development of sustainable NTFPS, in particular when it comes to defining a framework for sustainable charcoal production. While legislation exists about charcoal, the challenge remains to attain sustainability and to support the principles of environmental integrity. KEFRI and KFS will provide their expertise in support for the development of this strategy, which will be complemented with the inputs of external consultants who will hold multi-stakeholder consultation meetings and a validation workshop. This process will also be able to build on previous experience

from the early implementation of the activities on the ground from Component 2. A roadmap for developing this strategy will be prepared during the first half of PY 3, when the benefit-sharing policy is close to being approved. The actual development of this strategy will take place during the final years of the project, with the target of having a final strategy by the end of the project.

Component 2: Implementation of Restoration Programs and Complementary Initiatives

Outcome 2: 152,661 ha are under improved management (including 8,700 ha directly restored and 55,352 ha indirectly restored)

Output 2.1: Ecosystem services are assessed and characterized and land use and land cover changes in selected forests and rangelands are assessed

Activity 2.1.1 Assessments of existing ecosystem services in selected forests to obtain a detailed picture of the environmental and social context in the Mount Kulal and Mukogodo forests landscapes. A household surveys baseline assessment will be conducted during project inception. In addition, an ecosystem services expert will be recruited to conduct the assessment of existing ecosystem services. This will be undertaken during PY 1 and PY 2, and will feed into the ROAM assessment to be conducted as part of activity 2.1.2.

Activity 2.1.2 Assessment of the level of land degradation at county/site level: The ROAM, produced by IUCN and the World Resources Institute (WRI), provides a flexible and affordable framework for countries to rapidly identify and analyze areas that are primed for FLR and to identify specific priority areas at a national or sub-national level. This methodology was used in developing the assessment of FLR opportunities in Kenya, and will now be downscaled to provide detailed information specific to the project landscapes and specific sites. The ROAM application will deliver for the two intervention areas the following six products: a) a shortlist of the most relevant and feasible restoration intervention types across the assessment areas; b) identified priority areas for restoration; c) quantified costs and benefits of each intervention type; d) estimated values of additional carbon sequestered by these intervention types; e) a diagnostic of the presence of key success factors and identification of strategies to address major policy, legal and institutional bottlenecks; and f) an analysis of the finance and resourcing options for restoration in the assessment area. This will be implemented by an external team of consultants on PY 1, along with the ecosystem services assessment. The ROAM application will use GIS data available and combine it with additional participatory diagnostics at site level through focus groups and meetings as well as field visits.

Activity 2.1.3 Production and diffusion of maps of local restoration opportunities for each restoration option: The results of the ROAM assessment will be printed and shared at large within concerned communities to spread the information about what can be achieved through restoration. This will take place by the end of PY 2.

Activity 2.1.4 Awareness raising activities on SFM and FLR: In addition to spreading information about restoration opportunities, the project will seek to build awareness on the importance of sustainable forest management (SFM) and restoration, in order to build support for the activities to be implemented. Specific awareness raising campaigns will be implemented in the targeted communities during PY2, PY 3 and PY 4 by the PMU.

Output 2.2: FLR activities are implemented in the two targeted landscapes and ecosystem management plans and community action plans for selected landscapes are developed and implemented

Mount Kulal Biosphere Reserve MKBR:

Activity 2.2.1 Support to the finalization and implementation of the Mount Kulal ecosystem management plan, development of community action plans: During PY 1, the project will provide technical support to the Mount Kulal WWM to finalize its ecosystem management plan and develop community action plans that will enable it to plan a sustainable future for MKBR. The draft of this plan has been developed with technical support provided by NMK. The management plan will include a presentation of the ecosystem and the risks it is facing, the management structure, its priorities and its short, medium and long term goals along with a budget. This management plan will clarify the needs and expectations for support from the project for the implementation phase. Specific annual actions plans will be developed based on this management plan. IUCN Kenya and NMK will be providing technical support in finalizing this plan and developing the actions plans.

Subsequently and according to the plans, technical (from NMK among others) and financial support will be provided to implement part of the actions planned.

Activity 2.2.2 Restoration

In MKBR, the main threats are linked to livestock grazing into the forest. Restoration activities will therefore include the following:

- a. Restoration around the protected forest and promotion of alternatives to livestock grazing within the core zone of the forest allowing natural forest regeneration (1,100ha), through:
 - grass reseeding campaigns in lower MKBR within fenced enclosures (400 ha): fencing of enclosures using traditional community fencing; protection of grazing from livestock and wildlife; establishment of dry season grazing reserves; recovery of perennial grass root systems.
 - promotion of sustainable pasture management; technical support will be provided to revise and enforce the grazing plans and to manage pasture within the enclosures;
 - development of 200 ha agroforestry around the protected forest using fodder trees to prevent intrusion in the forest and other trees to diversify income generation and reduce soil degradation.
- b. Enrichment of critically degraded areas within the MKBR core zone. 50 ha will be enriched per year from Y2 to Y5. *(NB: these ha are included in the 1,100)*

To support these activities, two tree nurseries will be set up for indigenous species in MKBR. Technical support and equipment will be provided to establish two tree nurseries for providing indigenous trees (including fodder trees) for the planting campaigns. This will include technical support to bring piped water nearby the nurseries and stock water. Basic training in seed technology and nursery management will also be providing;

The ROAM assessment will allow to map more precisely the needs and identify specific intervention sites for tree or grass planting and other sites that must be fenced for natural regeneration;

The PMU, NMK and other partners to be identified during PY1 will be providing technical support to these activities. This will be taking place as of mid PY 2.

Activity 2.2.3 Water management improvement within Mount Kulal water catchment - Water infrastructure rehabilitation and fencing water sources: Water catchments within MKBR core zone are hotspots of

degradation and deforestation as herders keep livestock around the catchments to access water. As current water management practices insufficiently protect water catchments within the targeted forest core zone, the project will support the protection and the management improvement of the water catchments within the MKBR core zone, contributing to natural forest regeneration by ensuring the sustainability of water resources. This support will also contribute to secure access to water for local communities, building their ownership and involvement in proposed restoration activities. In line with the community's ecosystem management plan and NMK's plan, the project will propose the rehabilitation of water catchment protection infrastructures, the construction of additional water tanks along with pipes to bring water from catchments, and the rehabilitation of existing infrastructure, like the pipeline, masonry tank, trough, and the kiosk. Some of these should be used for the tree nurseries. This will be undertaken by private contractors in PY 2 and 3.

Activity 2.2.4 Setting-up of a local revolving fund for promotion of restoration activities and income generation activities (IGAs): The project will support the setting up and the initial capitalization of a local revolving funds to support the local community activities either directly linked to restoration or IGAs linked to either less degradation or restoration. The focus of the fund on NTFPS also aims at generating an incentive for ecosystem protection. In addition to encouraging restoration, this fund will enhance community resilience by promoting alternative livelihoods. It is also linked to the bio-enterprise activities described in 2.4. The focus on NTFPS also aims at generating an incentive for ecosystem protection. This revolving fund will be designed along the lines of the Community Environment Conservation Fund (CECF) that IUCN has launched in Uganda and that promotes:

- Diversity – of the economy, livelihoods and nature. Diverse markets or farming systems give people the alternatives they need to be adaptive. Enhancing and protecting biodiversity by maintaining, or recreating, natural diversity also ensures the availability of the ecosystem services needed to buffer climate impacts, such as storage of water in vegetated riverine habitats and sustains life and productivity;
- Sustainable infrastructure and technology – landscape management that recognizes, encourages and combines the presence, development and maintenance of both engineered and 'natural infrastructure', as well as adaptable and sustainable technologies for their management, reduces vulnerabilities. Infrastructure includes not only engineered responses, such as the sinking of boreholes, but also 'natural infrastructure', such as healthy and functioning wetlands and floodplains that store water, lower flood peaks or buffer surrounding lands from flooding;
- Self-organization - a critical characteristic of resilient, highly adaptive communities is participatory governance and self-empowerment ;
- Learning – ensuring that individuals and institutions are availed, and can make use, of new skills and technologies as they become available helps them to make more effective use of information and thus to develop effective adaptation strategies (IUCN, 2013)

According to IUCN, "the fund delivers improved environmental management because it enables improvements in livelihoods by removing barriers to accessing credit and not by prescribing specific actions".

Mukogodo forest and surrounding landscape:

Activity 2.2.5 Support to the development and implementation of Mukogodo ILMAMUSI CFA participatory forest management plan: Using data collected through the ROAM, this management plan will receive technical support from both KFS and IUCN to develop a plan that includes a presentation of the context, a management structure, a long term vision along with short and medium term objectives, an action plan with a timeline and a budget. It will also include a risk analysis. While this plan will be

developed before the NTFPS strategy is completed, it will also take into account the development of NTFPS and establish related management procedures. Because of its participatory nature, the management structure and the priorities will be elaborated through a participatory consultative process. This will be undertaken during PY 2 so that it can use knowledge research conducted by the project during PY 1.

Activity 2.2.6 Support the development of conservancies and group ranches management plans: Similarly and in the meantime, NRT will provide technical support for the conservancies and group ranches to develop or update their management plans, which should also be aligned with the ILMAMUSI CFA forest.

Activity 2.2.7 Establishment of 6 tree nurseries for indigenous species, tree planting campaigns in the Mukogodo forest: Restoration activities in the Mukogodo forest will be a common effort from ILMAMUSI CFA along with KFS, Laikipia wildlife Forum (LWF) and NRT, to nurse and plant indigenous species. The Mukogodo forest has been degraded by overgrazing and overuse and some critically degraded areas need to be enriched to find back their original balance. 100 ha of the forest will be enriched per year from Y2 to Y5 for a total of 400 ha. By contributing to restoring the surrounding conservancies (see below), the project will also contribute to reduce the pressure on the Mukogodo forest by providing alternatives to population residing into the conservancies and raising awareness regarding natural resources management and conservation.

Activity 2.2.8 Restoration in Lekurruki, IL Ngwesi, Oldonyiro and Leparua conservancies, and Kurikuri and Makurian group ranches:

As part of the management plans (activities 2.2.5 and 2.2.6), key activities will be defined to promote land restoration and reduce degradation within the conservancies and group ranches, very often linked to overgrazing and unsustainable pasture management triggering the vicious circle of land degradation. The project is aiming at restoring conservancies' pasture capacity through grass reseeding and management, and at promoting sustainable pasture management through the promotion and enforcement of grazing plans. This will take off the pressure on overgrazed areas and allow for grassland natural regeneration. The following activities will be undertaken:

- *Demarcation of range sites to be restored based on ROAM results;*
- *Seed production projects on private land surrounding the conservancies: hay and seed production from Rhodes grass (*Chloris gayana*). Farmers will be encouraged to plant Rhodes grass on drier land which is less risky than maize. The funds will be used to buy seeds from existing grass growers and pass on to new grass farmers;*
- *Range seed production (fencing enclosure of *Cenchrus*, *Brachiara*, *Themeda*, *Eragrostis*) on group ranches under direction of NRT/ IUCN/ Mpala Research center. At least 80 ha of land will be fenced, protected and managed to produce range seeds. Seeds from one ha of seed production can sow 100-200 ha;*
- *Rangeland reseeding campaigns will be organized under the supervision of NRT and IUCN using seeds produced in the fenced areas; an estimated 1 400 ha will be targeted per year from year 2 to 5 (a total of 5,600 ha). These reseeding campaigns will happen in enclosures, discussed and prepared with local communities, to avoid as much as possible wildlife and outsider's livestock intrusion. This technique, used in private ranches, has proven to be efficient.*
- *Rangeland condition monitoring: Rangeland officers (who sit on every grazing committees) will be trained for every site to be able to report on rangeland conditions;*
- *Development and implementation of dry and wet season grazing plans annually;*

- *Organization of inter conservancy meetings to discuss rangeland management;*
- *Technical support from NRT to the development and enforcement of grazing by-laws. The project will collaborate with local communities and surveillance personnel already in place; this will cover the entire area of the conservancies (120,772 ha); and*
- *Clearing/control of invasive species e.g. Opuntia and Accacia Reficiens*

Given the existence of draft management plans for some of the group ranches and conservancies (Lekurruki among others), the efforts of the conservancies' boards, group ranches committees, and the NRT will focus on implementation of the FLR activities. While some activities may be undertaken as soon as PY 1 as planned by their management plan, other activities will benefit from the knowledge basis built during project activities.

Through these activities (2.2.7 & 2.2.8) 6,000 ha will be directly restored. It is also estimated that the planning work in the Forest and the work in the surrounding conservancies and group ranches, promoting alternatives to livestock grazing within the forest, will allow for natural forest regeneration in 1,000 ha of the forest. It is therefore estimated that direct restoration will happen over 7,000 ha in the Mukogodo Landscape.

Thanks to activities 2.2.5 to 2.2.8., we can consider that the project will have an indirect impact on 55,352 ha including 1/3 of the conservancies/ranches surface $(120,772/3) = 40,257$ ha through the grazing plans in the improved management plans and 50% of the Mukogodo Forest zone $(30,189/2=15,095$ ha) thanks to increase surveillance and replication of activities.

Activity 2.2.9 Water management improvement: In their management plans, the different conservancies will identify water management priorities. Efficient water management will have significantly contributed to the sustainability of the ecosystems that they are trying to protect. To date it has been identified that Lekurruki conservancy will require the construction of a sand dam, of rock catchments and of storage tanks, as well as expand piped water to settlements. Il Ngwesi will also require some investments but these will be determined while developing the management plan.

Output 2.3: Knowledge base on NTFPS in the two targeted landscapes and their commercial potential is generated

This activity will be undertaken in all of the targeted communities of the two landscapes, namely Gatab and Arapal in Mount Kulal, the 2 group ranches and 2 conservancies around Mukogodo forest in Laikipia and Leparua and Oldonyiro conservancies in Isiolo. This activity will implemented with strong linkages to restoration activities as the development of NTFPS should support reduced degradation and improve restoration of landscape. These activities will inform the development of sound bio-enterprises (output 2.4).

Activity 2.3.1 Mapping, classification and characterization of NTFPS potentialities in the 2 targeted landscapes: As per the participatory Market Analysis & Development methodology (a participatory training methodology that aims to assist people in developing forest-based income-generating enterprises while conserving natural resources" (FAO, 2017)), this involves mapping NTFPS resources and products. Special attention will be paid to integrating women into the process from this early stage. This should be undertaken in PY 1 by a specialist from KEFRI through multiple multi-stakeholder discussion workshops in each site.

Activity 2.3.2 Assessment of NTFPS commercialization potential: This will constitute a second phase to this analysis, and will help build a full understanding of the market potential of the identified NTFPS. A long list of NTFPS will be developed and their market potential evaluated along with an assessment of their potential economic returns. In addition to communities, the specialist should also consult with private operators. Recommendations for a shortlist of products and services will be made. This should also be undertaken by KEFRI in PY 1.

Activity 2.3.3 Assessment of NTFPS value chain: This analysis will be completed with a value chain analysis from the commercial and the environmental perspective. The purpose of this study will be to identify the NTFPS that are economically sustainable but also environmentally sustainable, taking into account the entire value chain on the different project sites. A final shortlist of products will be elaborated on this basis. The outcomes of these three studies will be shared with relevant communities during workshops that will seek to build interest to the process and to the opportunities. KEFRI will undertake this activity. This assessment will be finalized by early PY 2.

Output 2.4: Bio-enterprises products and services are promoted and commercialized

Activity 2.4.1 Identification of viable bio-enterprises and training in post-harvest mechanisms, processing, stock, marketing: Based on the knowledge acquired with previous activities, each forest or conservancy will decide which NTFPS it wishes to focus on and develop a short plan on how to achieve this. The project will provide support as needed during this process, and will subsequently help communities identify their training needs in post-harvest mechanisms, processing, storage and marketing to make operate their bio-enterprises. Data collection missions and preliminary discussions during this PPG have tentatively identified that the following NTFPS are of interest to the communities:

- Mount Kulal: beekeeping, medicinal plants, charcoal, hay, farming, livestock;
- Mukogodo: grass seeds, beekeeping, medicinal plants, farming, livestock, hay, ecotourism;
- Oldonyiro and Leparua conservancies: gums and resins.

The identification of viable bio-enterprises will be conducted in the first quarter of PY 2, with training conducted during the following two quarters. KEFRI will coordinate this work. The approach will be to support around 12 bio-entrepreneurs groups in total (1 or 2 groups per site). The series of training will follow the Forest and Farm Facility (FFF) approach. The series of trainings will be conducted in the field to a group of 30 members maximum, pre-identified and engaged in each training session. These groups will also be involved in restoration actions as part of output 2.2, in order to create a strong linkages between restoration actions and bio-enterprises development opportunities.

Activity 2.4.2 Bio-enterprises equipment: The project will purchase the equipment required for processing and packaging of selected NTFPS. Based on preliminary discussions and on existing management plans, the communities have mentioned interest in obtaining support for the following:

- For all sites: beekeeping equipment, processing and packaging facilities;
- Mount Kulal: Support for ecotourism activities, which would include: 1) producing and printing a visitor's brochure with basic information about the forest, its biodiversity and map showing forest nature trails/ routes and sites of interest; 2) training forest guides in guiding and on biodiversity of interest (birds, reptiles, mammals and useful trees); and 3) establishing an eco-lodge;
- Lekurruki conservancy: plan areas for agriculture and establish irrigation farming along Ngare Ndare River; In addition to honey facilities, the conservancy would want to develop a branding for Lekurruki honey. They also wish to establish a shop at the cultural boma to sell their beadworks, and to establish campsites for ecotourism;

The details and modalities for support will be clarified during the detailed planning for the project so as to align expectations, and actual contribution agreements will be developed following the final identification of NTFPS (Activity 2.3.1), in parallel with training activities, starting on the 2nd quarter of PY 2.

Activity 2.4.3 Training of NTFPS producer groups in sustainable management and utilization of natural resources: As part of the series of trainings that will be provided under the FFF approach, this training is essential to ensure that the exploitation of NTFPS is conducted in a sustainable way. There have been cases in the past where honey has been harvested in an unsustainable way with cutting of the trees holding beehives (Borghesio & Laiolo, 2004). For this reason, field training sessions will be conducted by KEFRI staff during PY 2, in preparation for the initiation of bio-enterprises activities.

Activity 2.4.4 Entrepreneurship training and existing Forest and Farm Facilities visit exchanges: Entrepreneurship training will also be provided to ensure that the more promising entrepreneurs possess the necessary skills to manage a financially sustainable business. This will include general management, bookkeeping, marketing and communications. The project will organize exchange visits with the FFF projects in Kenya, particularly with the Laikipia products based associations and the Yaaku Cultural Group – which among others works on honey production - to benefit from knowledge exchange and training. This training should be initiated before the bio-enterprises are operational, but may be continued throughout the project.

Activity 2.4.5 Development of marketing and commercialization strategies for key identified products: Marketing and commercialization are among the most important barriers that rural communities face when attempting to make a living out of their local products. With support from KEFRI and from external specialists, the marketing and commercialization plans will be adapted to the specific value chains and target markets identified by communities and promising entrepreneurs in activity 2.3.1. This will be undertaken in PY 3.

Activity 2.4.6 Charcoal value chain assessed and sustained: Charcoal production has been identified as being a source of revenues for many communities. It is said to contribute KES 32 billion (USD 300 million) to the Kenyan economy. Its commercial potential is therefore undeniable, but its production has been unsustainable in Kenya for many years. Until realistic energy alternatives are available, the charcoal industry must become more efficient. The legislative and business environment is still ambiguous, and for this reason charcoal production is one of the main drivers of forest and woodland degradation. Finding ways to produce charcoal in a sustainable manner at market rates is thus a challenge, and the answer may be found through the analysis of its value chain. This assessment will be undertaken with KEFRI and KFS expertise and the support of a consultant during PY 3.

Activity 2.4.7 Exchange visits to successful bio-enterprises: These visits will be organized prior and during the operational phases of bio-enterprises, so that communities can benefit from direct observation of practices elsewhere and replicate best practices into their own bio-enterprises. Depending on the final selection of bio-enterprises, the visits would be organized simultaneously for relevant representatives from each community to visit together bio-enterprises of interest to all of them, for example related to honey processing and marketing. Two such visits will be organized during the duration of the project, along with two additional visits that may be of interest for specific communities, for example if a representative from Oldonyiro conservancy wishes to visit another gums and resins bio-enterprise.

Component 3: Institutions, Finance, and Upscaling

Outcome 3: Strengthened institutional capacities and financing arrangements are in place and facilitate large scale restoration and maintenance of critical landscapes

Output 3.1: Counties capacities in implementing FLR relevant policies are strengthened

Activity 3.1.1 Build individual capacity on planning, implementation and monitoring of FLR activities: They will be implemented starting mid-PY 1 and during the entire duration of the project, based on the previously established plan.

Capacity-building activities will focus on FLR training, both at the county and at the landscape level. Two specific trainings will be conducted: one training on planning and implementing FLR (to be managed by KFS) and one rangeland monitoring training (to be managed by NRT). Additional capacities will be built under the other components and the activities presented below. The Global Child project will provide tools and material for capacity building to be used by the project. It is expected that by the end of the project, the capacity-level for FLR implementation will be between 2 and 3 in average.

Output 3.2: Community land management committees are set-up and working in targeted project sites

Mount Kulal:

Activity 3.2.1 Institutional Support to the environment elders committee (WWM): Some of the already-identified needs involve management governance training, training on biodiversity conservation and management, and an increase in patrolling /surveillance capacities. This activity will be undertaken by NMK, starting by the end of PY 1. According to the NMK Five-year Budget and Work Plan for MKBR, building capacity to implement the management plans will involve the following activities:

- Meeting with wazee (elders) to raise awareness about what is expected;
- Strengthen leadership of the newly appointed umbrella group from all villages around Kulal;
- Support several meetings until the management group is on its feet. Support is mainly facilitating those from far to attend.
- Each WWM group has its own rules about the forest use and management. These rules need to be harmonized.

Activity 3.2.2 Support the establishment of the WRUA to facilitate access to the Water Sector Trust Fund (WSTF) and other funds: Sustainable water management is a crucial issue for MKBR as one of Kenya's key water towers and especially given its location in the heart of an arid area. For this reason, a formal entity should be established that will facilitate cooperative sharing, managing and conserving of the water resources. The project will support the creation of this entity by mobilizing stakeholders around the ideas, leading public consultations, guiding the election of a committee, and guiding the committee through the registration process. The WSTF's mandate is "to finance water and sanitation services for the poor and underserved communities in rural and urban areas". Its mandate includes "provision of conditional and unconditional grants to the Counties" and also "assist in financing the development of and management of water services in the marginalized and underserved areas". Once established, the WRUA will be eligible to submit proposals to the WSTF for Water Resources Investments that aim to:

- Improve the quantity and quality of water resources for enhanced livelihoods;
- Improve the ability of the catchment and riparian areas to provide hydrological services;
- Ensure the governance of water resources by promoting stakeholder participation in water resources management;

- Improve compliance to protect water resources by promoting stakeholder participation in water resources management; and
- Develop well governed and self-reliant WRUAs.

TRI Kenya's support would help identify specific water resource management issues and develop a proposal for the Water Resources Investments in order to obtain funding for the development of a sub-catchment management plan. The support will also include identifying other funds that could support the activities of the WRUA. Within the limits of available resources, the project will then help the WRUA fulfill the requirements to access these additional funds. The WRUA will be set-up and registered by PY 2 and technical support in developing a bankable proposal will be provide by PY 3.

Mukogodo forest landscape:

Activity 3.2.3 Institutional Support to Mukogodo ILMAMUSI CFA and conservancies Board and group ranches committees: As identified in the capacity needs assessment, KFS, LWF and NRT will provide technical support to institutions and committees to ensure their smooth functioning. This will be undertaken as from the middle of PY 1.

Activity 3.2.4 Support the WRUAs in accessing the WSTF and other funds: As in Mount Kulal, LWF and NRT will help the local WRUAs identify their specific water management issues and submit a proposal to the WSTF for Water Resources Investments. It will also identify other relevant funds to support their activities. This part of activity 3.2.4 can be undertaken jointly with the same segment of activity 3.2.2. Within the limits of available resources, the project will then help WRUAs fulfill the requirements to access these additional funds.

Output 3.3: Restoration initiatives are coordinated at the national level

Activity 3.3.1 Establish a permanent national restoration coordination mechanism: coordinate all the restoration initiatives in Kenya and promote restoration: Given that the absence of a permanent coordination mechanism for FLR has been identified as a key barrier to FLR implementation nationwide, this project support such a coordination unit which will be embedded in KEFRI and supported technically by KFS. This permanent coordination mechanism will build on the work conducted as part of the LRTWG, which is a non-permanent working group. The role of this mechanism will be to plan for FLR in a coordinated manner, to enhance the national and local capacity to access national and international funding for FLR, to coordinate FLR implementation, and monitor its results. Analysis, consultations and design work for the design of this mechanism will take place during PY 1. The mechanism will then be rolled out with the target to have it operate normally by PY 3.

Output 3.4: Access to climate and restoration finance is improved

Activity 3.4.1 Support the operationalization of the Forest Conservation and Management Trust Fund (FCMTF) and facilitate the access to this fund by local beneficiaries: This fund, which is currently under development, was created in the Forest Conservation and Management Act (2016) with the purpose "to nurture, promote and inspire innovations in forest conservation". It is meant to be used for:

- a) development of public, community and private forests;
- b) maintenance and conservation of indigenous forests;
- c) promotion of commercial forest plantations
- d) rehabilitation of provisional forests;
- e) provision of forest extension services;
- f) development of national community forestry programs;

- g) development of national reforestation programs;
- h) development of a national programs for craft apprenticeship and vocational training in forest resource based enterprises;
- i) development of forest sink initiatives;
- j) facilitation of education and research activities;
- k) establishment of arboreta and botanical gardens;
- l) maintenance and protection of sacred trees and groves and other areas of cultural, ethno-botanical or scientific significance;
- m) undertaking of surveys and establishment of databases;
- n) protection and management of unique trees and forests for biodiversity conservation;
- o) establishment of nurseries and production of seedlings;
- p) silvicultural practices and tree improvement,
- q) protection and management of protected trees.

It will be managed by a Board of Trustees appointed by the Cabinet Secretary, and a Chairperson and four other members. The FMCTF will be capitalized by the government of Kenya, funds collected from forest beneficiaries, profits made from investments by the management Board, grants and other donations. The TRI Kenya project will support the development and operationalization of the new FMCTF through two institutional and operational trainings and technical support provided to the management Board by specialized trainers (PY 2 and 3) and by facilitating access to the fund for target communities.

Activity 3.4.2 Capacity building for accessing other international funds (including the LDN fund): During PY 2 and 3, trainings of key national experts and institutions' representatives will be organized on the main procedures to improve access to international funding for restoration such as the Land Degradation Neutrality Fund, etc. These funds could be directed to the FMCTF. Some of these trainings will be organized in direct collaboration with the Global Child Project and its financial unit.

Activity 3.4.3 Linkages between bio-enterprises (including FFF supported private operators) and potential investors: The TRI Kenya project will work with AFRACA and/or NetFund or any other potential business incubator to identify a limited number of more promising bio-enterprises to help them scale up their business. The selection for these bio-enterprises will start during PY 3, so as to leave project-supported bio-enterprises time to prove themselves. The selection criteria will be established in the planning stages of the project but will certainly include criteria combining financial and environmental sustainability with good governance. The support provided by the TRI Kenya project will include technical advice to build an enhanced business plan to present to investors, and participation to networking events to present the company to potential investors.

Activity 3.4.4 Facilitation of access to credit / finance instrument for bio-enterprises / "bankable proposal" workshop: As of PY 3, KEFRI and KFS will start preparing the functional bio-enterprises to be financially sustainable. Given that access to finance is an important barrier for bio-enterprises, the project will seek to build the bio-enterprises internal capacity to access funding by training them to prepare proposals tailored to private banks requirements.

Component 4: Knowledge², Partnerships, Monitoring and Assessment

Outcome 4: Improved FLR monitoring, reporting and knowledge dissemination at national level and Project implementation based on result-based management

Output 4.1: A national FLR Knowledge Management system is developed and implemented

Activity 4.1.1 Develop a FLR Knowledge Platform: The FLR Portal. The project will support the design and establishment of an FLR knowledge platform, which will include a Knowledge Management³ supporting infrastructure and electronic filing systems. It will be used as an FLR knowledge products repository and will allow an easy access to LFR information, targeting varied audiences and allowing edits and open forums discussions and learning to promote open-access approach to data, information and project documentation. All knowledge generated throughout this TRI project, such as the ROAM assessment and the assessment of existing ecosystem services and analysis of land use and land cover changes will be documented and made available within this portal. As for the coordination mechanism, this mechanism will be embedded within KEFRI. It will be designed in PY 3 and implemented in PY 4 and 5. The GCP will provide guidance on the development of such a platform and on the mechanisms for knowledge dissemination.

Activity 4.1.2 Prepare and disseminate knowledge products about best practices and lessons learned in FLR, SLM and community forest management: During PY 4 and PY 5, the project will elaborate a synthesis of all new knowledge acquired about community-led FLR and also all good practices and lessons learnt in the domains of FLR in ASAL and bio-enterprise development. This synthesis exercise will allow the project to produce an interesting lessons learned document that will be highly interesting for other ASAL counties and conservancies in Kenya, as well as other countries facing similar challenges. All information collected and compiled will be disseminated via the FLR knowledge platform. This will be led by the PMU but a consultant will be involved to develop the materials. This material will also enrich the knowledge sharing tools developed by the GCP to support FLR in the TRI countries and beyond.

Output 4.2: South to South Knowledge exchanged.

Activity 4.2.1 Sharing knowledge products with stakeholder from other countries: On an ongoing basis, and especially on PY 3 and 5 will use the mechanisms and activities put in place by the GCP such as the Community of Practices, to share the learnings from the TRI Kenya project with stakeholders worldwide

Activity 4.2.2 Sharing with project stakeholders of knowledge and information from other countries: On an ongoing basis, the PMU will remain aware of initiatives of interest conducted in other countries, in particular initiatives from TRI, and circulate this information among the project stakeholders to increase their knowledge base.

Activity 4.2.3 Participate in TRI global knowledge network events: Project representatives will participate in TRI annual Knowledge Sharing events, to share and gain knowledge as well as to be trained on particular topics chosen in agreement with all the TRI countries. The trainings during these events will be trainings of trainers so that other trainings can be organized in country to disseminate the knowledge. The organization of these meetings are the responsibility of the GCP.

² 'knowledge' is defined as the understanding of a subject, in this case, the experience and lessons learned related to FLR Projects and programs

³ Knowledge management is about ensuring that people have the knowledge they need, where they need it, when they need it – the right knowledge, in the right place, at the right time

Output 4.3: Results – based project monitoring system providing systematic information on project’s progress is implemented

Activity 4.3.1 Implement a results-based project monitoring system, including baseline research, data analysis and reporting: The project will develop a detailed monitoring and evaluation plan that will use a results-based management approach. During PY 1, the project will hire an M&E specialist to design and establish an M&E system to obtain information on progress in meeting targets, evaluating results and facilitating the systematization of experiences. The Chief Technical Advisor (CTA) will advise the PMU on this. Throughout the duration of the project, monitoring reports will be prepared by the PMU according to the M&E system. The results matrix (Annex 1) presents the expected results from the project, related indicators and measurement methods and tools that will be used. Throughout the project duration, annual financial audits will be conducted to ensure that resources are appropriately used as planned.

Activity 4.3.2 Conduct a mid-term review: During PY 3, an independent mid-term review will be conducted by experts selected by the FAO with the approval of the Project Steering Committee (PSC). The technical mid-term review will be important to assess independently the level of achievement of the project goals and also to assess the project management effectiveness. Recommendations to eventually modify and update some of the outputs and activities will also be made if judge relevant and necessary.

Activity 4.3.3 Conduct a final evaluation: During PY 5, an independent final evaluation will be conducted. Lessons learnt and recommendations produced by the final evaluation will be fundamental for future replication and scaling up restoration initiatives.

1.3.3. Project assumptions

Assumptions are the risks that cannot be mitigated by the project, and which are conditions *sine qua non* for the achievement of project objectives.

Table 10. Project Assumptions

Outcome	Assumptions
Outcome 1: The national and county level policy and regulatory frameworks are strengthened to support forest and landscape restoration in Kenya	<p>Topic remains of high relevance to government. National institutions maintain their support to Kenya’s pledge to the Bonn Challenge.</p> <p>The national legislative process and institutional framework remains stable enough for the continuation of the devolution process and the formulation and approval of a NTFPS policy.</p> <p>County governments participate actively in the policy review process.</p> <p>This factor can become relevant rapidly with general elections planned in August 2017, while some political tensions are already noticeable.</p> <p>Security situation is stable.</p>
Outcome 2: 152,661 ha are under improved land management including 8,700 ha directly restored and 55,352 ha indirectly restored	<p>Local communities are willing to engage in restoration and bio-enterprise development.</p> <p>Ethnic and land related conflict remain at a level where project activities are not threatened and where local population can remain on project</p>

Outcome	Assumptions
	<p>sites. Security situation is stable, especially in Marsabit county, allowing project team to implement their activities in the ground.</p> <p>CC impacts remain in the scale of what was projected and the intensity and frequency of droughts remain at a scale that does not hinder restoration activities.</p> <p>Activities respond to the real needs of local communities (including women and vulnerable people).</p>
<p>Outcome 3: Strengthened institutional capacities and financing arrangements are in place and facilitate large scale restoration and maintenance of critical landscapes</p>	<p>Concerned institutions are willing to collaborate together and to collaborate with the FLR coordination mechanism.</p> <p>The Landscape Restoration Technical Working Group remain in place during the first years of project implementation, while the FLR coordination mechanism is designed and established.</p> <p>The staff from government institutions is willing to attend trainings and participate actively.</p> <p>There is sufficient interest from communities to learn about FLR.</p>
<p>Outcome 4: Improved FLR monitoring, reporting and knowledge dissemination at national level and Project implementation based on result-based management</p>	<p>TRI is able to organize the planned global events</p> <p>Stakeholders provide consent for sharing information, in particular for the movie.</p> <p>The project partners provides quality reports in a timely manner.</p> <p>Accurate data is available to perform project M&E tasks.</p>

1.3.4. Stakeholders

During the PPG, two missions were conducted to potential project sites in addition to several meetings and interviews conducted with national institutions and partners, which allowed the PPG team to conduct consultations and to identify several key stakeholders for the project intervention. The table below gives an overview of all stakeholders relevant to the project’s intervention, including their strengths, weaknesses and roles in the project. For each stakeholder, there is an indication of its level of involvement in the project. Level 1 is the core group that will execute and implement the project, Level 2 is the group that will be closely involved in the management or service provision of the project, followed by Level 3 group who will be informed of the project progress and consulted for their input where applicable.

Table 11. Stakeholder analysis

Stakeholders		Strengths	Weaknesses/ limitations	Level of involvement	Role in the project
Government stakeholders					
MENR	KEFRI	<ul style="list-style-type: none"> • Human resources • Research infrastructure at regional level • Knowledge management 	<ul style="list-style-type: none"> • Weak linkages between research and extension • Limited resources to conduct research and development • No station/office in project sites 	1	<ul style="list-style-type: none"> • Lead executing partner • Host the PMU and coordinate project activities • Secretariat of the PSC • Technical leadership for policy development and for NTFPS assessments: Mapping, classification and characterization at site level of NTFP, assessment of NTFPs commercialization potential, assessment of NTFP value chain of main NTFPs, support to value chain development • Provision of expertise for restoration activities and coordination: set-up of nurseries for restoration activities and training of people for collecting seeds/seedlings • Supervision of other implementing partners • Technical and financial reporting • Coordination with on-going baseline research projects
	KFS	<ul style="list-style-type: none"> • Constitutional mandate on forest management • Human resources • Office facilities and equipment • Building capacity of CFAs • Resources centre 	<ul style="list-style-type: none"> • Overall responsibility limited to gazetted forests • Limited capacity to implement participatory FLR • Improvements required for management of community demands on forest resources 	1	<ul style="list-style-type: none"> • Executing partner for the project • Member of the PSC • Leads the development of FLR strategy and NTFPS policy • Coordinate the work within Mukogodo forest together with the CFA • Leads the LRTWG • Develop a national restoration coordination mechanism • Capacity building of CFAs

Stakeholders		Strengths	Weaknesses/ limitations	Level of involvement	Role in the project
					<ul style="list-style-type: none"> • Coordination with Forest Farm and Dry Land Forestry Program
	KWTA	<ul style="list-style-type: none"> • Mandate on management of water towers • Strategic plan • partnerships 	<ul style="list-style-type: none"> • Limited resources • Limited technical staff • No county offices 	3	<ul style="list-style-type: none"> • Interest in sustainable water management on the project sites: Exchange of information
	KWS	<ul style="list-style-type: none"> • Constitutional mandate on wildlife management • Human resources with expertise in wildlife management and eco-tourism • Office facilities and equipment 	<ul style="list-style-type: none"> • Limited human resources • Coordination challenges with sister institutions • Limited incentives for community engagement • Limited capacity to manage wildlife outside the gazetted national parks and reserves. 	2	<ul style="list-style-type: none"> • Support to biodiversity conservation • Support to eco-tourism activities as a bio-enterprise
	NETFUND	<ul style="list-style-type: none"> • Mandate to incubate green businesses and to facilitate research on environmental management • Redirection of resources for NRM to the population 		3	<ul style="list-style-type: none"> • Contribution to the selection of promising bio-enterprises • Exchange of information on NTFPS opportunities and value chains • Grants to more promising bio-enterprises
Ministry of Agriculture, Livestock	KALRO	<ul style="list-style-type: none"> • Purpose is to coordinate research in agriculture • Interest in sustainable livelihoods in ASALs 	<ul style="list-style-type: none"> • Not present on project sites 	2	<ul style="list-style-type: none"> • Hosts the Arid and Range Lands Research Institute • Sharing of information on sustainable livelihoods in ASALs

Stakeholders		Strengths	Weaknesses/ limitations	Level of involvement	Role in the project
and Fisheries		(Arid and Range Lands Research Institute)			<ul style="list-style-type: none"> Operator for provision of Rhodes seeds together with private land owners
NEMA		<ul style="list-style-type: none"> Constitutional mandate to enforce EMCA Human resources Office facilities and equipment at County level 	<ul style="list-style-type: none"> Limited capacity to enforce environmental laws Disagreements with development agencies Limited awareness of environmental laws at local level 	2	<ul style="list-style-type: none"> Capacity building of landscape/environmental committees Environmental awareness generation Enforcement of environmental regulations
NDMA		<ul style="list-style-type: none"> Provides up to date information and early-warnings on drought events Information accurate at county level 		3	<ul style="list-style-type: none"> Provide information on drought situation (VCI)
Ministry of Water and Irrigation	Water Resources Management Authority	<ul style="list-style-type: none"> Constitutional mandate on water resource management Regional offices Already supporting communities 	<ul style="list-style-type: none"> Conflicting and overlapping roles and responsibilities with regulatory bodies Poor or lack of hydrological data quality for effective water resources planning and protection 	2	<ul style="list-style-type: none"> Provision of water resources and water management information Capacity building of WRUAs
County governments		<ul style="list-style-type: none"> County government Devolution of agricultural sector Financial resources Political will 	<ul style="list-style-type: none"> Limited human resources Policy and institutional gaps Limited knowledge management 	1	<ul style="list-style-type: none"> Members of the PSC Support to project implementation Budgetary support Political will Support for policy development and regulatory improvements

Stakeholders		Strengths	Weaknesses/ limitations	Level of involvement	Role in the project
			<ul style="list-style-type: none"> Lack of comprehensive land use plan 		<ul style="list-style-type: none"> Benefit from capacity-building
NMK		<ul style="list-style-type: none"> Mandate to document and preserve Kenya's cultural and natural heritage overlaps with the reforestation aspects of the project Research and technical capacities Knowledge of local context in Mount Kulal 		1	<ul style="list-style-type: none"> Member of the PSC Support to implementation in Mount Kulal (management plan design and implementation, restoration activities, institutional support)
International organizations, NGOs, CSOs, CBOs					
FAO	FAO Kenya	<ul style="list-style-type: none"> Thematic expertise International knowledge base Past and present related projects in the country National office County offices Management structure 		1	<ul style="list-style-type: none"> GEF Implementing/ Executing agency Member of the PSC Oversight and technical backstopping Strong linkages with Land Program and RAELOC Overall delivery of project objectives Monitoring and evaluation
IUCN		<ul style="list-style-type: none"> Technical expertise National presence, including on Mount Kulal site Part of TRI initiative Implementation capacity 	<ul style="list-style-type: none"> Limited funding 	1	<ul style="list-style-type: none"> Potential executing partner for participatory mapping, support to the development and implementation of Mount Kulal management plan, governance support and training for local committees (LoA to be confirmed) Member of the PSC Technical backstopping

Stakeholders	Strengths	Weaknesses/ limitations	Level of involvement	Role in the project
Community Groups (CFAs, conservancies, group ranches)	<ul style="list-style-type: none"> Local leadership Knowledge of local context Land owners Labour force 	<ul style="list-style-type: none"> Limited capacities to plan for FLR and to develop bio-enterprises Members live in poverty, with insecure livelihoods and vulnerable to conflicts Limited technical knowledge Limited incentives for FLR 	1	<ul style="list-style-type: none"> Community mobilization Implementation of restoration practices in their lands Main beneficiaries
NRT	<ul style="list-style-type: none"> Technical capacity Resource mobilization Lobby and advocacy for: <ul style="list-style-type: none"> - enabling policy environment - Support to bio-enterprises - peace and development initiatives 	<ul style="list-style-type: none"> Coverage of a wide area Limited resources Must manage conflict between different community groups 	1	<ul style="list-style-type: none"> Member of the PSC Training of conservancy management teams on governance and grazing committees Technical backstopping on restoration approaches Resource mobilization Sharing of information
Laikipia Wildlife Forum (LWF)	<ul style="list-style-type: none"> Based in the region around the project site Existing collaboration with ILMAMUSI CFA Experience working in Mukogodo forest 	<ul style="list-style-type: none"> Limited resources 	1	<ul style="list-style-type: none"> Institutional support to ILMAMUSI CFA
Women and youth groups	<ul style="list-style-type: none"> Labour force Experience Existing Organized groups 	<ul style="list-style-type: none"> Lack of empowerment to make decisions Lack of direct income Suppressive traditions 	1	<ul style="list-style-type: none"> Active role in the implementation of some activities Specifically targeted beneficiaries due to their higher vulnerability
Other groups				

Stakeholders	Strengths	Weaknesses/ limitations	Level of involvement	Role in the project
LRTWG	<ul style="list-style-type: none"> • High technical capacity • Influential for decision-making • Excellent understanding of the context 	<ul style="list-style-type: none"> • Not permanent • Not fully independent 	1	<ul style="list-style-type: none"> • Receive support from the project
Private sector	<ul style="list-style-type: none"> • Business oriented • Financial resources • Market linkages 	<ul style="list-style-type: none"> • Limited information of SLM/SFM practices that could generate business 	2	<ul style="list-style-type: none"> • Supply of inputs • Linkage to markets

Consultations

All the stakeholders were consulted during the PPG and their inputs were taken into account while preparing this project document. Consultations were undertaken in particular during two different site visits to each of the targeted landscapes, as well as into the capital cities.

The means for consultation included one on one meetings, informal interviews and group discussions. One on one meetings were mostly used to consult with government representatives and with community leaders. Informal interviews and group discussions were used with community members. The groups consulted included youth, women, and elders. While they often represented less than 50% of the group, women were involved in all group discussions. Given the predominance of indigenous populations on the project landscapes, they were also involved in all discussions. Consultations covered all the aspects of the project: socio-economic issues, FLR and institutional and policy framework. These consultations allowed the collection of first-hand information on the context, needs and priorities of the community in terms of FLR and NTFPS, which guided the selection of the above-mentioned activities.

While receptive to the approach of the project, some indigenous people in the Mukogodo landscape raised the following arguments, which were considered while preparing the project and will have to be kept in mind throughout its implementation:

- Their cultures and ways of life differ considerably from the dominant society;
- Their cultures are under threat, in some cases to the point of extinction;
- The survival of their particular way of life depends on access and rights to their lands and the natural resources thereon;
- They suffer from discrimination as they are regarded as less developed and less advanced than other more dominant sectors of society;
- They often live in inaccessible regions, often geographically isolated;
- They suffer from various forms of marginalization, both politically and socially.

During project implementation, this participatory approach will be maintained and even strengthened, as the project is geared towards empowering local population and communities to undertake new IGAs. The project will reinforce the structures that the communities have created to manage their environment, such as the conservancies and the WRUAs. As such, consultations will continue throughout the project.

1.3.5. Expected global environmental benefits

The application of the integrated approach to FLR will lead to an increase in the forest cover and to the restoration of degraded grasslands. The project aims to directly restore 8,400 ha of deforested and degraded lands on the two targeted sites. This will involve implementing sustainable land management practices and improving water management, which will ensure long-lasting benefits from sustainable use of the land and increased biodiversity.

The project will also support the development of bio-enterprises of NTFPS, which will generate alternative sources of income in order to decrease pressure on land use as well as an incentive to use lands sustainably. This has the additional benefit of diversifying the sources of income which increases the population's resilience to climate change and to extreme climatic events, like droughts.

At a larger scale, the project aims to achieve the following global environmental benefits:

- Direct restoration of 8,400 ha of degraded lands, and indirect restoration of 55,352 ha of degraded land;

- Protection and restoration of ecosystem services and biodiversity provided in these areas including wildlife;
- About 148,861 ha of production systems under sustainable land management;
- At least 152,661 ha maintaining globally significant biodiversity and ecosystem goods and services;
- The overall mitigation benefits will amount to 5,954,109 t CO₂eq for a 20 year period

The project will support the achievement of the following Aichi targets:

Target 1 - By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably (in 5th NBSAP 2015, this is realized through CFAs, WRUAs, PPP, community based conservation initiatives);

Target 7- By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity (in 5th NBSP, through participatory forest management plans); and

Target 15 - By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

The fifteenth of the seventeen proposed Sustainable Development Goals is to “Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”. Specifically, the project will contribute directly to Sustainable Development Goal 15.1 “by 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements”.

1.4. LESSONS LEARNED

Other projects covering some of the same issues as the TRI Kenya project have generated valuable lessons that were taken into account during the PPG stage, informing the design of the project and the identification of project activities.

UNEP/GEF Project: “Building the Foundation for Forest Landscape Restoration at Scale”

Countries such as Sweden, Costa Rica and South Korea have successfully restored forest cover at a large scale. The following lessons can be drawn from their experience:

- **Increase awareness of the benefits of restoration.** An increasing number of decision-makers are being inspired to pursue forest restoration as a means to enhance SLM on a large scale and achieve other important outcomes. Although many countries have success stories on restoration, these success stories have to be followed up with specific actions to develop the foundations for long term success and to scale up these successes. Decision makers often do not know the answer to one or more questions: *Where* is restoration possible? *How big* is the opportunity in terms of hectares, income generation (agroforestry), carbon potential, financial returns, and other benefits? *What* gaps in information need to be addressed in order to increase awareness of the benefits of restoration? And what strategies would be effective to scale up restoration?
- **Improve enabling conditions.** Too often, countries lack one or more critical “enabling conditions” needed to support the spread of restoration across large areas, such as:

- Ecological, policy, market and institutional conditions in place to support restoration;
 - Societal support for restoration;
 - Clear understanding of how restoration fits into existing international, national and sector priorities;
 - Restoration efforts developed to target entire ecosystems or landscapes;
 - Effective benefit sharing frameworks that encourage local investment in restoration efforts by rural communities;
 - Efficient mechanisms linking national planners and local stakeholders to facilitate dialogue, planning, communication and implementation;
 - Agreement on mandates and specific responsibilities of institutions with key roles to play in scaling up restoration efforts;
 - Secure land tenure and resource rights;
 - Efficient planning processes with provisions for cross-sectorial coordination.
- **Insufficient capacity and funds for on-the-ground implementation.** Even if a country is inspired and has the right enabling conditions, on-the-ground restoration may still not occur if the following are missing:
 - Capacity, leadership and knowledge to push the restoration agenda;
 - Resources to finance and sustain restoration efforts;
 - Accessible data on the baseline situation to enable tracking of progress and adaptive management;
 - Support for practical mechanisms to monitor and evaluate restoration initiatives;
 - Integration of income-generating activities into restoration strategies to address short term needs of resource-dependent rural communities;
 - Development of communication and outreach strategies that take account of limitations of government extension services in support of agriculture and rural development.

TerrAfrica Strategic Investment Programme (TerrAfrica SIP)

- Blanket approaches and top down processes should be avoided; and local actors need to be empowered in decision making over their resources and territories through management plans and decentralized governance mechanisms.
- Where projects were successful in including pro-SLM measures in national level policies (and laws), the chance of post-project sustainability is much higher.
- The prospects for sustainability at local levels are also favoured when projects have ensured that pro-SLM by-laws and other local regulations have been enacted and are enforceable.
- Projects and programmes to scale-up SLM need to remain flexible, able to react to changes in context and priorities, from local to global level, and from the design stage and throughout implementation. For example, through promoting farmer innovation, availability of multi-purpose agro-environment funds, and mid-term reviews to validate and adapt the project work plan and budget.
- Concerted efforts are needed to address social considerations and inequities, including gender and tenure security, and to build ownership at community level, including targeting and empowering women and identifying opportunities for youth.
- Scaling up of SLM/INRM practices need to create a win-win-win situation whereby productivity and livelihoods are improved, while ecosystem services, such as cycling of water, biomass and nutrients, are enhanced. Scaling up of SLM/INRM should also be linked to post-harvest storage, processing, and access to markets and credit. Vulnerable groups should be targeted, especially women and youth.
- Communication and dissemination of results and knowledge products should receive more attention, and material should also be produced in local languages.

EU funded project on Support for Responsible Land and Natural Resource Governance in Communal Lands of Kenya

- While the government has provided the institutional framework for land reforms, there are still a number of barriers that have constrained the realization of land reforms in the country. One of the main barriers is lack of access to land information. Information on land (registry, cadastres, etc.) for the management of land at county level is rarely available, and the capacity to put an information system in place in the counties is inadequate. The capacity of land officers is also limited particularly in terms of land planning for livelihood ventures and land administration, including land access and land rights for communities, as well as land conflict resolution between communities and individuals.
- Large scale land acquisitions are a very real and pressing challenge in most counties. The initiation of a set of national social and environmental safeguards to address this challenge has begun in the framework of the referred project. These safeguards shall be put into practice in the land programme with the support of both the Ministry of Lands as well as the National Land Commission.

UNEP/GEF Project “Development and Implementation of a Sustainable Resource Management Plan for Marsabit Mountain and its associated Watersheds in Kenya (Otherwise known as Mount Marsabit Ecosystem Project (MESP))

- **Water and Protection are key factors for afforestation in Pastoralist areas.** Recent afforestation efforts in Marsabit have been largely unsuccessful as livestock destroy the seedlings during the dry period. Forestry staff mentioned that in other areas of Kenya, staff simply give out seedlings, or plant seedlings and survival rate is good. The project studies looked at the constraints in planting in Marsabit and realised that water and livestock damage in the dry season were key issues. As a result all the project’s tree planting initiatives emphasised water availability and protection. Tree lots were set up only at sites of permanent water and fences were built around the planted areas. These fences could then be moved to extend the planted area as the trees matured.
- **Forestry Projects need time to mature.** Tree planting activities began in 2005 and the project came to an end in 2008. The aim of the tree planting plots was to demonstrate the potential to create sources of firewood and income outside the forest. The hoped for outcome was a change in local attitudes and management practices. However the demonstration could not be completed because it takes at least five years from planting to harvesting timber trees. Communities around the wood plot sites have not yet been able to see the full benefits of the wood plots. This may explain why in some cases wood plots are not being adequately cared for. The evaluators also found that local managers of wood plots did not feel fully qualified to manage the plots.

Source: Terminal Evaluation, June 2009.

1.5. STRATEGIC ALIGNMENT

1.5.1. Consistency with national development goals and policies

The TRI Kenya project has been developed to be aligned to all relevant national development goals and policies, particularly:

- **Constitution of Kenya (2010)**, given its objective to reforest and maintain a tree cover of at least 10% of the country.
- **Vision 2030**, which has the same objective.
- **National Forest Policy (2015)**, which looks for way to reverse the deforestation and forest degradation with the same objective as the previous two. Among its objectives are also “support forestry research,

education, training, information generation and dissemination”, and “promote investment in commercial tree growing, forest industry and trade”. Priorities for ASALS include, among others, the promotion of “sustainable management of dryland forests”, “sustainable production of charcoal”, rehabilitation of degraded dryland forests and encourage tree planting” and finally “production of wood and non-wood forest products”, all of which are aspects addressed by the TRI Kenya project.

- **Forest Conservation and Management Act (2016)** which provides plans for “protection, conservation and management of forests and forests resources”. It focuses on establishing training programs on forestry, on reinforcing CFAs, provides some elements of regulation for NFTPS, and addresses water issues. It also sets the FCMTF which this project aims to benefit from, and defines forestry functions for county governments, that this project aims to reinforce.
- **Community Land Act (2016)**, which sets a legal framework for community ownership of land. This is a foundation for this project as this ownership is what will allow communities to care for their forests and derive benefits from them.
- **National Policy for the Sustainable Development of Northern Kenya and other Arid Lands (2012)**: climaxed historical marginalization of the ASAL in Kenya by previous administrations. It focuses on an enabling environment for accelerated investments as essential to reducing poverty and building resilience and growth in these areas.
- **National Land Policy (2009)**: on pastoralism, the policy acknowledges its tenacity as an appropriate production system while confirming the failures of pre-colonial and post-colonial government. It promises to ensure security of long-held rights, facilitate land access and secure livelihoods of rural communities.
- **Wildlife Bill (2013)** aims at soften human-wildlife conflicts, especially with pastoralists.
- **National Climate Change action Plan (2013)** aims at taking the climate change agenda forward and implementing the **National Climate Change Response Strategy (2010)**, which was the first document acknowledging the impacts of climate change.
- **The National Disaster Management Policy (2012)** institutionalizes disaster management and mainstreams disaster risk reduction in the country’s development initiatives.
- **Poverty Reduction Strategy Paper (2001)** outlines the priorities and measures necessary for poverty reduction and economic growth.
- **Gender policy (2011)** aims to address gender disparities such as women’s under representation in decision making, access and control of resources as well as in socio-economic activities.
- **Kenya Forestry Master Plan (1995-2020)** recognises the environmental role of forests including water values, biodiversity values, climate change values through carbon sequestration and other environmental services.
- **Kenya strategic investment framework for sustainable land management 2017-2027** places emphasis on sustainable land management practices, and as such is aligned with this project.

1.5.2. Consistency with national communications and reports to the United Nations Conventions

Ratification of UNCCD in 1997; Finalization of NAP in 2002

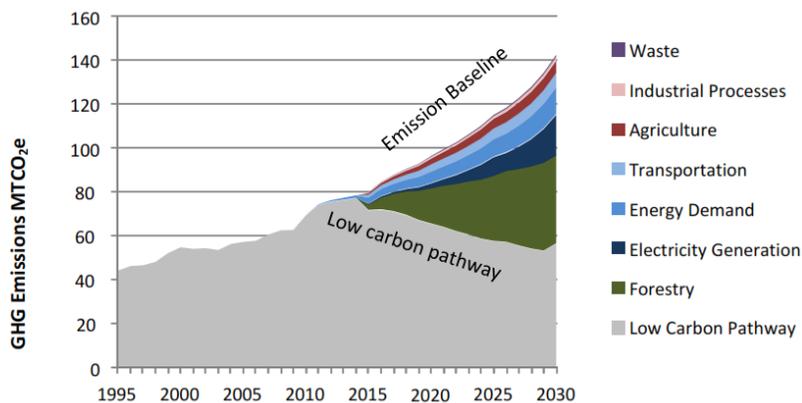
- The TRI Kenya child project is aligned with the NAP proposed actions. Past efforts by the government to combat desertification had not been effective due to sectoral approach in implementation, weak institutional linkages, inefficient resource use and lack of project ownership by local communities. Thus the NAP was aimed at addressing previous shortcomings through effective elaboration and implementation.

- Regarding land management and pastoralism, the proposed actions within the NAP include: formulation of policies and enacting legislation to provide for appropriate land use and tenure; strengthening social and legal mechanisms for conflict resolution; promoting adoption of livestock, crops and trees in drylands e.g. drought and pest resistant and early maturing crops and trees; creating public awareness on research findings on alternative income generating activities and providing an enabling environment for trade in drylands products e.g. marketing of livestock and non-timber forest products.
- Current status in NAP: Kenya has started aligning its NAP with the UNCCD 10 Year strategy and participated in a capacity building workshop organized by UNCCD in 2013 in Nairobi for the East African region. The recommendations included a need for more stakeholder participation, support to build on successes recorded so far and the need to align the NAPs in the shortest time possible.

UNFCCC ratified in 1994, Second National Communication submitted in 2015, Paris Agreement ratified in 2017

- The Second National Communication builds on the above-mentioned National Climate Change Action Plan and draft National Adaptation Plan, among others. It reports on GHG emissions and removals by sinks.
- It notes that Kenya needs to strengthen the coordination, networks and information flows between ministries, different levels of government, civil society, academia and the private sector to have a more efficient integration of climate change variables into poverty reduction and development strategies.
- As noted in Figure 8 below, the Second National identified the LULUCF sector as being the one with the greatest mitigation potential for the country. This was reiterated in the country’s Intended Nationally Determined Contribution (INDC) submitted to the UNFCCC in 2015.
- The INDC and NAP main adaptation focus is on mainstreaming climate change into policy, including in land reforms. It also prioritizes, among others, an enhanced resilience of ecosystems to climate variability and change, the strengthening of the adaptive capacity of vulnerable groups (including gender and youth), enhancing the resilience of the tourism value chain. The Kenya TRI project is aligned with all of these priorities.

Figure 8. Composite abatement potential for all sectors for Kenya (technical potential) in MtCO₂e



UNCBD, ratified in 2002 and into force since 2003

- The Fifth National Report to the Conference of the Parties to the UNCBD was submitted in 2015. It reports on governmental and non-governmental actions on biodiversity and on progress towards the Aichi Biodiversity Targets.
- The report mentions the following:
 - Current patterns of utilization of natural resources and extraction fail to promote sustainability and integrity of the country’s national capital;
 - Economic growth and human development are highly dependent on good and sustainable natural resources management;
 - Several restoration initiatives especially in our five water towers to mitigate pressure and threats to these vital ecosystems have been undertaken, which has led to a slight increase in forest cover.
- Many of the progresses towards the Aichi targets are aligned with the TRI Kenya project. Among them are (non-exhaustive list):
 - CFAs, WRUAs, Private Public Partnerships (PPP), community based conservation initiatives, strengthened collaboration between civil societies and government institutions;
 - Recognition of biodiversity values in national development blueprint (Vision 2030), Kenya forestry master plan, Ecosystems/site specific plans, National biodiversity conservation and restoration plans, and others;
 - Involvement of local communities in wildlife conservation through community wildlife association – new wildlife law 2013;
 - Management and conservation plans to ensure sustainable use of natural resources and biodiversity rich areas e.g. livestock production. Participatory Forest management plans;
 - Priority invasive and alien species identified and control measures initiated; and
 - Expansion of the protected areas system through increased NPs, community conservancies, forest reserves, private forests.

Bonn Challenge

Kenya has pledged to restore 5.1 million hectares by 2030. The TRI Child project in Kenya is a contribution to achieving this pledge.

1.5.3. Consistency with GEF focal areas

Table 12. Consistency of project outputs with GEF focal areas, strategic objectives and program

GEF focal area, strategic objective and program	Related project Output
BD-4 Program 9: Managing the Human-Biodiversity Interface	Output 1.1: An FLR strategy is developed, including a roadmap and a monitoring framework to bridge the FLR gaps in the policy framework Output 1.2: Domestication of relevant international, and national NRM policies is facilitated at the county and local levels, especially as it relates to FLR

	<p>Output 2.1: Ecosystem services are assessed and characterized and land use and land cover changes in selected forests and rangelands are assessed.</p> <p>Output 2.2: FLR activities are implemented in the two targeted landscapes and ecosystem management plans and community action plans for selected landscapes are developed and implemented</p> <p>Output 2.4: Bio-enterprises products and services are promoted and commercialized</p>
CC-2 Program 4: Promote conservation and enhancement of carbon stocks in forest, and other land use, and support climate smart agriculture	<p>Output 1.3: Policy framework for management and utilization of NTFPS is developed and adopted</p> <p>Output 2.3: Knowledge base on NTFPS in the two targeted landscapes and their commercial potential is generated</p> <p>Output 2.4: Bio-enterprises products and services are promoted and commercialized</p>
LD-2 Program 3: Landscape Management and Restoration	<p>Output 2.2: FLR activities are implemented in the two targeted landscapes and ecosystem management plans and community action plans for selected landscapes are developed and implemented</p> <p>Output 3.2: Community land management committees are set-up and working in targeted project sites</p> <p>Output 3.3: Restoration initiatives are coordinated at the national level</p>
LD-3 Program 4: Scaling-up sustainable land management through the Landscape Approach	<p>Output 2.2: FLR activities are implemented in the two targeted landscapes and ecosystem management plans and community action plans for selected landscapes are developed and implemented</p> <p>Output 2.4: Bio-enterprises products and services are promoted and commercialized</p> <p>Output 3.4: Access to climate and restoration finance is improved</p>
SFM-3: Restored Forest Ecosystems: Reverse the loss of ecosystem services within degraded forest landscapes	<p>Output 2.2: FLR activities are implemented in the two targeted landscapes and ecosystem management plans and community action plans for selected landscapes are developed and implemented</p>

	Output 3.2: Community land management committees are set-up and working in targeted project sites
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1.5.4. Consistency with FAO’s Strategic Framework and Objectives

The project addresses FAO’s Strategic Objective (SO) 2 – Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner⁴:

- Organizational Outcome 2.1: Producers and natural resource managers adopt practices that increase and improve agricultural sector production in a sustainable manner; and
- Organizational Output 2.1.1: Innovative practices for sustainable agricultural production (including traditional practices that improve sustainability, such as those listed as Globally Important Agricultural Heritage Systems) are identified, assessed and disseminated and their adoption by stakeholders is facilitated.

The project will be developed in conformity with the Kenya FAO Country Programme Framework⁵ (CPF, 2013 – 2017), and is more specifically aligned with the following expected outcomes:

- Outcome 3: Improved management of natural resources (rangeland, agricultural land, water and forest) at national and community level; Output 3.1: Capacity for improved management of commonly managed natural resources strengthened at the community level; and
- Outcome 4: Improved livelihood resilience of targeted, vulnerable populations; Output 4.1: Increased productive capacity of households living with chronic vulnerability and output 4.2: Increased viable livelihood options available to vulnerable households.

⁴ <http://www.fao.org/3/a-ms431e.pdf>

⁵ ftp://ftp.fao.org/TC/CPF/Countries/Kenya/CPF_KEN_2013-2017.pdf

SECTION 2. INNOVATIVENESS, POTENTIAL FOR SCALING UP AND SUSTAINABILITY

2.1. INNOVATIVENESS

The approach to restoration promoted by the project is particularly innovative.

As part of the TRI program, the Kenya project promote **the FLR approach**. As mentioned in the Program Framework Document (PFD) of the TRI Program, FLR makes use of a wide range of tools and techniques in order to enable restoration in a great diversity of ecosystems and landscapes, with different communities, and has proven to work worldwide. FLR principles encompass the following:

- Planning is done at the landscape level, which allows trade-offs to be made between conflicting interests;
- Local stakeholders are actively engaged in the decision-making, collaboration and implementation of the solution;
- Restoration strategies are forward-looking, tailored to local conditions, and adaptively managed over time;
- Landscape functionality is restored and managed to provide a suite of ecosystem goods and services; and
- A wide range of restoration strategies are considered, ranging from natural regeneration to tree planting.

Through FLR, this project embraces the **concept of ecosystem-based management**. The UNCBD defines the ecosystem-based approach as a “strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way”⁶. The approach is based on scientific methodologies that focus on the biological organization of ecosystems, which comprises the key processes, functions and interactions among organisms and their environment. The ecosystem-based approach recognizes that humans are an integral part of ecosystems. The TRI Kenya project adopts an ecosystem-based approach to restoration - for example by promoting in identified sites land natural regeneration – and is innovative in its support to the integration of this approach into regulatory frameworks.

The innovative character of the project can also be seen in the use of **innovative participatory assessment methodology** such as **ROAM**, which provides a flexible and affordable framework for countries to rapidly identify and analyze areas that are fit for FLR and to identify specific priority areas at a national or sub-national level. In the case of the TRI Kenya project, the downscaled ROAM assessment will allow to map out and identify sites for tree or grass planting, and other sites for natural regeneration or water catchment protection.

Another core innovative component of the project is the **support provided to bio-enterprises** relying on forest products. This support will be based on the Market Analyses and Development participatory methodologies that aim to provide training to forest-based bio-entrepreneurs to help them develop IGAs while conserving natural resources. This approach enables bio-entrepreneurs to be an integral part of the forest management decision making processes.

The project will also promote the innovative **FFF approach** through visit exchange with FFF projects in Kenya. The Forest Farm Facility was born from a partnership between FAO, IIED, IUCN and AgriCord. It aims to “promote sustainable forest and farm management by supporting local, national, regional and international organizations and platforms for effective engagement in policies and investments that meets the needs of local

⁶ <https://www.cbd.int/ecosystem/>

people”⁷. This approach acknowledges that families, communities and indigenous people have responsibilities for managing forests; and that there is a huge potential to improve both livelihoods and forest protection by encouraging an enhanced relationship between communities and governments.

Moreover, the project promotes **innovative financing mechanisms** such as the setup of local revolving funds for communities to implement restoration or IGA that are either based on NTFPS or that are environmentally sustainable. This type of financing mechanism is innovative in the sense that it enables an enhanced environment management by improving livelihood and removing barriers to credit access, while not prescribing specific actions. In addition, the project will support the operationalization of the FCMTF that promotes innovation in forest conservation. Such financing mechanisms are innovative in themselves as they catalyze private sector engagement in FLR, and incentivize investments in restoration.

2.2. POTENTIAL FOR SCALING UP

The project’s potential for scaling up is real. As part of the global TRI program, the results and lessons learned of the Kenya project will be shared and disseminated at the global level, among the 11 other child projects as well as at a wider scale. The TRI Program’s links to the wider restoration community, particularly through the Global Partnership on Forest and Landscape Restoration (GPFLR), and through the Program’s global awareness and communications campaign, and ensures that projects and Program’s impact will not be limited to TRI countries.

Through its first component, the project will strengthen the legal framework at the county level to address any policy gaps regarding FLR, which will facilitate the replication of other restoration initiatives throughout the targeted counties. In addition, the project will support the development and implementation of policies and strategies at the national level – such as an FLR strategy, the National Resources and Benefit Sharing Policy and the NTFPS management strategy - that will encourage the replication of FLR activities throughout the national territory.

Moreover, through its third component, the project aims to coordinate restoration initiatives at the national level through a dedicated coordination mechanism, into which the project results and lessons will be fed, facilitating the replication of the project approaches and results in other initiatives.

The third component of the project will also support an enhanced access to FLR financing. This will be achieved through several complementary financial mechanisms – revolving funds, trust fund, linking entrepreneurs and investors, and global funding through GCF, LDN Fund and other international funds - that will facilitate the replication of FLR initiatives in the country.

2.3. SUSTAINABILITY

2.3.1. Environmental sustainability

The whole project strategy is built around environmental sustainability. The project aims to address environmental issues and root causes to restore and maintain deforested and degraded landscapes. FLR is anchored in an environmentally sustainable approach that aims to bring back the good functioning of ecosystems and the overall quality of the environment in the long term, while improving local communities’ livelihoods.

In its first component, the project will check if targeted counties comply with existing legislation regarding FLR, and will address any identified policy gaps to ensure that FLR is an integral part of the legal and policy

⁷ <http://www.fao.org/partnerships/forest-farm-facility/about/en/>

framework, which will ensure the sustainability of project activities since this framework will continue in the long term.

Through its second component, the project aims to restore 8,400 ha of deforested and degraded lands, which will directly contribute to conserving, protecting and enhancing natural ecosystems. The approach undertaken by the project is sustainable as it will closely involve relevant local stakeholders to ensure that they build ownership and continue implementing FLR in the long term. The project will for instance include communities in the assessment of land degradation in the targeted sites through participatory mapping. It will also support forest-based bio-enterprises and train them to improve their livelihood while promoting an efficient use of resources and the conservation of the forest. Local communities will also be closely involved in the implementation of ecosystem management and action plans in the targeted sites. In addition, the project will build capacity among key county-level stakeholders to implement FLR relevant policies. These different measures will directly contribute to the environmental sustainability of project activities as it will improve efficiency in the use of forest resources while contributing to conserving, protecting and enhancing natural ecosystems.

2.3.2. Financial and economic sustainability

Project interventions will seek to ensure a viable anchor into existing local and institutional systems to create favorable conditions for the sustainability of the achievements and to ensure sustainable management of investments. In this perspective, the integration of FLR in the national and local policy, legal and strategic framework will ensure the institutionalization of a regular support from the government and local communities. The project will support FLR integration in the national and local frameworks through the development and implementation of strategies, policies and bylaws, as well as by setting up mechanisms such as a national coordination mechanism for restoration initiatives.

At the local level, the project will support forest-based enterprises in the production of their products and services while ensuring an efficient use of forest resources. In addition, the project will facilitate the linkages between these entrepreneurs and potential investors, as well as their access to credit, to help them scale up their activities. The income generated by this sustainably managed enterprises will ensure that they can continue their activity after the project end and in the long term. In addition, the project will support the setup of revolving funds in targeted areas to finance local communities' restoration activities and IGAs.

At the national level, the project will develop capacities among key stakeholders on how to access international funding for FLR – from the GCF or LDN fund for instance. This will directly contribute to the financial sustainability of the project as such funding could help continue and scale up FLR activities in the country. As part of the TRI Program, the project will participate in global workshops organized by the initiative on financing restoration, which will be a great opportunity to identify and leverage additional funding sources for FLR in Kenya.

2.3.3. Social sustainability

Gender equality

The PPG conducted gender sensitive consultations and data analysis processes; to ensure that the project fully recognizes women as key stakeholders when it comes to managing land, using natural resources and ensuring food security. The project complies with the GEF policy on Gender Mainstreaming as it contributes to “promote the goal of gender equality through GEF operations”. The project will proactively seek to ensure meaningful participation of women taking into account the specific constraints and barriers they may face. The project will

promote the participation and empowerment of women to strengthen their roles in planning and decision-making, and to improve their livelihoods and living conditions.

Under the first component on Policy Development and Integration, the project will ensure that women participate as much as possible in the strengthening, development and implementation processes of the legal and policy framework on FLR. Gender equality will also be carefully mainstreamed in all new policy or strategic document developed by the project, such as for instance the FLR strategy, the Natural Resources and benefits sharing policy, or the NTFPS management strategy. Mainstreaming gender equality into these documents will ensure that women are systematically considered in the long term when it comes to FLR and natural resources use.

The project will also pay a special attention to women from the onset of the mapping of NTFPS potentialities. This will ensure that women's financial objectives and the NTFPS resources they depend on for their livelihoods are carefully considered and identified from the beginning in order to assess their commercialization potential and value chain. The special attention given to women in this early-on assessment will allow the project to support and train women bio-entrepreneurs in the development of their economically viable and sustainable economic activities. This will directly contribute to women's empowerment in the long term.

Gender equality will also be considered when developing and implementing the ecosystem community action plans in targeted sites, and project activities will involve women closely in decision-making processes and restoration activities.

Women will also be targeted by the capacity needs assessment in implementing FLR that will be conducted under the third component, as well as by the follow-up capacity development activities proposed by the project in order to ensure the institutional and legal framework, the management structure and processes, and the human resources management are all gender-sensitive.

The project will therefore pay a special attention to the needs, priorities and constraints of both women and men, it will contribute to the equitable access to and control over natural resources, and it will ensure that women and men equally participate in and benefit from the project intervention.

Indigenous peoples

As described in Section 1, the project areas are inhabited by several indigenous peoples that were thoroughly consulted during the PPG phase. Some results of these consultations are reported in pg.69 above. The project complies with the Free Prior and Informed Consent (FPIC) principles.

The consent of indigenous peoples to project activities will be **free** and **prior** in the sense that it will be given voluntarily and without coercion, intimidation or manipulation. Indigenous people have been consulted and informed during PPG field missions, and representatives from indigenous communities in the project area gave their overall informal consent to the project architecture during the PPG validation workshop that took place in Nairobi the 6th of July 2017. Informed consent will continue to be sought for all activities throughout the project implementation through participatory and concertation mechanisms. As mentioned above, the child TRI will work hand-to-hand with the Land Programme, targeting the same project sites and beneficiaries. As part of the first and second components, the Land Programme will conduct consultative and iterative meetings, focus groups and awareness raising sessions with community members, focusing on land rights and land planning. Stakeholder mapping will be conducted as part of these consultative meetings. The program will support the establishment of digitized community land registries, and will identify land tenure regimes to allow the identification of the areas that can be planned.

Furthermore, as part of TRI, the livelihoods of indigenous people and their dependence on natural resources will be carefully assessed under the second component of the project, and they will be closely involved in the participatory mapping of NTFPs. The ecosystem community action plans will also be developed in close

collaboration with local indigenous communities and will aim to directly empower them over the management of natural resources in targeted areas. They will be at the heart of the decision-making processes, of the restoration activities and of the forest and landscape management processes.

The consent of indigenous people will be **informed** as the project will ensure – through its capacity development activities on FLR and participatory mechanism for instance - that relevant information is given to indigenous groups in an accessible manner, involving all vulnerable groups (youth, women, the elderly, and persons with disabilities), and allowing sufficient time for them to discuss in their local language and freely express their consent. Awareness raising sessions and knowledge dissemination will be a key priority of both the Land Programme and the Child TRI at the local level. The TRI will work through community focal points (one per project site) to ensure information is well disseminated to community members.

The project will aim to respond to the needs and priorities expressed by the indigenous communities involved. The knowledge, cultural systems and institutions of indigenous people will form the basis on which project activities will be implemented. These will be thoroughly assessed during several assessments to be conducted from the onset of the project such as: an assessment on compliance with local legislation, an assessment of ecosystem services, land use and land degradation in selected forests (including participatory mapping), and an assessment of NTPFS potentialities.

As for women, the project will ensure that indigenous people are carefully considered in the implementation and development of national policies or strategies in order to ensure that their rights are preserved and that their voice is systematically taken into account in the long term in the FLR decision making processes.

During PPG phase, FPIC steps 1, 2 and partially 3 were conducted⁸. Due to time and financial constraints, also the desire not to stimulate too much anticipation for the TRI project before it has been designed and funding approved, it was concluded that the best approach will be to undertake step 3 (*Design a participatory communication plan and carry out iterative discussions through which project information will be disclosed in a transparent way*) and step 4 (Reach consent, document Indigenous Peoples' needs that are to be included into the project, and agree on a feedback and complaints mechanism) of the FPIC process during the project's inception period, when there is a project team in place. The project manager will prioritise catalysing work specifically with the indigenous communities to reassure and confirm that the project will respect their dignity, rights, interests, cultural specificities and that they will benefit from all the advantages of the project. This will include the "series of steps and iterative phases are needed before the community can arrive to a collective decision of consent or withhold-consent" using participatory engagement (consultations and negotiations) as the means and tools through which FPIC can be achieved. The last steps of the FPIC process - number 5 (*Conduct participatory monitoring and evaluation of the agreement*) and number 6 (*Document lessons learned and disclose information about project achievements*) – will be undertaken along with the monitoring and evaluation phases of the project.

Human Rights Based Approaches (HRBA)

The project complies with the HRBA in the sense that it supports both communities right to food, and a decent employment. Land restoration is closely linked to food security as it allows to bring back the good functioning of ecosystems that provides numerous services to local communities. For instance the restoration of grasslands and pasture land and livestock sustainable management will ensure that livestock is better fed, and in a sustainable manner that can be sustained in the long term, which will contribute to enhancing the food security of local communities.

⁸ FPIC steps are detailed in the FAO FPIC manual, page 19 - <http://www.fao.org/3/a-i6190e.pdf>

The project will also contribute to offering local communities decent employment through the development and strengthening of economically viable and environmentally sustainable bio-enterprises, which will contribute to improving local communities' livelihoods in the long term.

Capacity development

Capacity Development is one of the key approaches of the project to contribute to the sustainability of the project results through deepening country ownership and leadership of the development process. The project will address all three capacity development dimensions: individual capacities, organizational capacities, and enable environment. To do so, capacity building activities will be implemented, and progress will be tracked through the project M&E framework.

Individual capacities will be strengthened through a variety of trainings provided to a wide range of beneficiaries from the local communities to government stakeholders throughout the project. For instance, trainings in geo-referenced database creation, analysis and management will be provided to KEFRI and KFS staff; and capacity building activities on the implementation of FLR policies will target public sector institutions, communities, and CBOs. The project will also build awareness on the importance of FLR. In addition, the project will support the development of capacities for NTPFS bio-enterprises through a variety of trainings, such as: training in post-harvest mechanisms, processing, stock, marketing; training in sustainable management and use of natural resources.

The project will strengthen organizational capacities, mainly by providing support to a number of management committees such as the environment management committee and elders committee in Mount Kulal, and the Il Mamusi CFA and conservancies Board and group ranches committees. The project will also support the establishment of a national restoration coordination mechanism that will coordinate all related initiatives and will promote restoration in the country. Finally, the project will support the operationalization of the FCMTF as a formal entity supporting the financing, management and conservation of forest resources.

The enabling environment will be strengthened through the first component of the project that focuses on Policy Development and Integration. Through this component, the project will contribute to strengthening the national and county level policy and regulatory framework to support FLR. In particular, the project will support the development of a specific FLR strategy, a Natural resources access and benefits sharing policy, a NTPFS management strategy, as well as the development of county level laws to address identified policy gaps. In addition, the project under its third component will build capacity among government stakeholders on how to access international funding for restoration.

SECTION 3. IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS

3.1. INSTITUTIONAL ARRANGEMENTS

3.1.1. Roles and responsibilities of main institutions

The FAO will be the GEF agency responsible for monitoring and providing technical backstopping during project implementation. FAO's role and responsibilities are described below. In addition to FAO as GEF agency, the project will have the following executing partners. Table 13 below summarizes the responsibilities for each institution.

Table 13: Executing partners

Institution	Activity and output responsibility
KEFRI	<p>Activity 1.3.2. Development of NTFPS strategy</p> <p>Output 2.2. restoration activities – technical advice to setting-up tree nurseries</p> <p>Output 2.3. Knowledge base on NTFPS</p> <p>Output 2.4. Identification of viable bio-enterprises and trainings (activities 2.4.1, 2.4.3, 2.4.4)</p> <p>Activity 2.4.5. Marketing strategies</p> <p>Activity 2.4.7 - Exchange visits to successful bio-enterprises</p> <p>Activity 4.2.2. Knowledge platform.</p>
IUCN (to be confirmed)	<p>Output 2.1 - Ecosystem services are assessed and characterized and land use and land cover changes in selected forests and rangelands are assessed</p> <p>Output 2.2 - FLR activities are implemented in Mount Kulal landscape</p> <p>Output 3.2 - institutional support to Mount Kulal Community land management committee</p>
NRT	<p>Activities 2.2.1, 2.2.2, 2.2.3 and 2.2.4. Restoration actions in conservancies and group ranches in the Mukogodo landscape</p> <p>Activities 3.2.3. Institutional support to conservancies and group ranches' boards in the Mukogodo landscape</p>
KFS	<p>Activity 1.1 Development of restoration strategy & 3.3 Coordination mechanism</p> <p>Activity 1.2.3. Make recommendations towards the amendment of existing laws at the county level to address any policy gap</p> <p>Activity 1.3.1. Development of the natural resources access and benefits sharing policy</p> <p>Activity 2.2. Restoration work - Mukogodo forest</p> <p>Activity 3.3.1. County level trainings</p> <p>Activity 3.3.4. Access to climate and restoration finance is improved</p>
LWF	<p>Activity 3.2.3. Institutional support to Mukogodo CFA</p>

National institutions

The Ministry of Environment and Mineral Resources (MENR) will be the institutional anchor of the proposed project.

KEFRI will be the lead government counterpart and will play a lead role in the execution of project activities as well as the day-to-day monitoring. KEFRI will be engaged in project oversight (Steering Committee) and will provide technical inputs (focal point liaising with the Project Management Unit) as well as implementing project activities (LOAs) . FAO will sign a Government Cooperation Project (GCP) Agreement with MENR. The GCP Agreement will outline the roles and responsibilities of the FAO and MENR, including legal aspects of collaboration such as responsibilities for facilitating inputs, copyrights among others.

For project technical execution, KEFRI will oversee restoration activities and bio-enterprises development, including the mapping, classification and characterization at site level of NTFPS, the assessment of NTFPS commercialization potential, the assessment of NTFPS value chain of main NTFPS, the support to value chain development, and the setup of nurseries for restoration activities and training of people for collecting seeds and/or seedlings.

Another partner to be determined will be associated as a key executing partner for i) participatory mapping in the two targeted landscapes, ii) support to the development and implementation of Mount Kulal management plan together with NMK, iii) governance support for Mount Kulal committee and training for local committees in this project landscape.

NRT will be involved as an executing partner regarding rangeland management work that will be conducted in Lekurruki, Il Ngwesi, Oldonyiro, and Leparua conservancies, and also in Kurikuri and Makurian group ranches.

KFS will be involved for Mukogodo Forest and also for the work to be conducted on restoration policies as part of component 1 and finance as part of component 3.

LWF will be involved in institutional support to IL MAMUSI CFA.

Additional project partners for implementation will include the Livestock State Department.

Letters of Agreement (LoA) with partners will be confirmed during project inception. FAO will provide overall technical, methodological, administrative and procurement support to the execution of the project, in close cooperation with KEFRI, IUCN Kenya and other stakeholders.

At the county and local level

County governments will be involved and associated to all activities performed in the field through their County Environment Committee (CEC)⁹. Technical experts will be seconded to the CEC (local technicians based in Gatab and in Nanyuki), and paid by the project while the CEC will provide necessary support in order to guarantee their involvement in the project while strengthening their capacities. Wards will be informed and associated to the different community consultations and participatory meetings, making sure project activities are aligned with local needs and priorities. PCU and Project experts will give technical and methodological support for activities implementation.

FAO's role

FAO's role in the project governance structure

FAO will be the GEF Agency of the Project as well as the financial and operational executing agency. As financial and operational executing agency, FAO will provide procurement services and financial management services for GEF resources. As the GEF Agency, FAO will supervise and provide technical guidance for the overall implementation of the project. The administration of GEF grants will be in accordance with FAO rules and

⁹ According to the Environmental Management and co-ordination Amendment Bill (2013), The Governor shall by notice in the Gazette, appoint a County Environment Committee of the County. Every County Environment Committee shall consist of: (a) The member of the county executive committee in charge of environmental matters who shall be the Chairman; (b) An officer of the Authority whose area of jurisdiction falls wholly or partly within the county; (c) A Secretary who shall be appointed by the Governor; (d) One representative each of the Ministries responsible for the matters specified in the First Schedule at the county level; (e) two representatives of farmers or pastoralists within the county to be appointed by the Governor; (f) two representatives of the business community operating within the concerned county appointed by the Governor; (g) two representatives of the non-governmental organisations engaged in environmental management programmes within the county appointed by the Governor in consultation with the National Council of Non-Governmental Organisations; and (h) a representative of every regional development authority whose area of jurisdiction falls wholly or partially within the county.

procedures and in accordance with the agreement between FAO and the GEF Trustee. As the GEF agency for the project, 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, agreements with co-financiers 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 Evaluation Office, through the annual Project Implementation Review, on project progress and provide financial reports to the GEF Trustee.

FAO will also be the executing agency of GEF resources, including financial management, procurement of goods and contracting of services, according to FAO rules and procedures. As financial executor, FAO will provide to the Project Steering Committee (PSC) semi-annual reports including a financial statement of project expenditures.

In accordance with the Project Document and the Annual Work plan and Budget (AWP/B) approved by the PSC, FAO will prepare budget revisions to maintain the budget updated in the financial management system of FAO and will provide this information to the PSC to facilitate the planning and implementation of project activities. In collaboration with the PMU and the PSC, FAO will participate in the planning of contracting and procurement processes. FAO will process due payments for delivery of goods, services and products upon request of the PMU and based on the AWP/B and Procurement Plans that will be annually approved by the PSC.

FAO's roles in internal organization

The roles and responsibilities of FAO staff are regulated by the FAO Guide to the Project Cycle, Quality for Results, 2015, Annex 4: Roles and Responsibilities of the Project Task Force Members, and its updates.

The FAO Representative in Kenya will be the Budget Holder (BH) and will be responsible for the management of GEF resources. As a first step in the implementation of the project, the FAO Representation in Kenya will establish an interdisciplinary Project Task Force (PTF) within FAO, to guide the implementation of the project.

The PTF is a management and consultative body that integrates the necessary technical qualifications from the FAO relevant units to support the project. The PTF is composed of a BH, a Lead Technical Officer (LTO), the Funding Liaison Officer (FLO) and one or more technical officers based on FAO Headquarters or Decentralized Offices.

In consultation with the LTO, the FAO Representative in Kenya will be responsible for timely operational, administrative and financial management of the GEF project resources, including in particular: (i) the acquisition of goods and contracting of services for the activities of the project, according to FAO's rules and procedures, in accordance with the approved AWP/B; (ii) process the payments corresponding to delivery of goods, services and technical products in consultation with the PSC; (iii) provide six-monthly financial reports including a statement of project expenditures to the PSC; and (iv) at least once a year, or more frequently if required, prepare budget revisions for submission to the FAO-GEF Coordination Unit through the Field Programme Management Information System (FPMIS) of FAO.

The FAO Representative in Kenya, in accordance with the PTF, will give its non-objection to the AWP/Bs submitted by the PMU as well as the Project Progress Reports (PPRs). PPRs may be commented by the PTF and should be approved by the LTO before being uploaded by the BH in FPMIS.

The LTO for the project will be the Forestry Officer, Forest and Landscape Restoration Mechanism (FLRM) team, Forestry Department (FOA). The role of the LTO is central to FAO's comparative advantage for projects. The LTO will oversee and carry out technical backstopping to the project implementation. The LTO will support the BH in the implementation and monitoring of the AWP/Bs, including work plan and budget revisions. The LTO is responsible and accountable for providing or obtaining technical clearance of technical inputs and services procured by the Organization.

In addition, the LTO will provide technical backstopping to the PTF to ensure the delivery of quality technical outputs. The LTO will coordinate the provision of appropriate technical support from PTF to respond to requests from the PSC. The LTO will be responsible for:

- Review and give no-objection to ToRs for consultancies and contracts to be performed under the project, and to CVs and technical proposals short-listed by the PMU for key project positions, goods, minor works, and services to be financed by GEF resources;
- Supported by the FAO Representation in Kenya, review and clear final technical products delivered by consultants and contract holders financed by GEF resources before the final payment can be processed;
- Assist with review and provision of technical comments to draft technical products/reports during project execution;
- Review and approve PPRs submitted by the National Project Coordinator (NPC), in cooperation with the BH;
- Support the FAO Representative in examining, reviewing and giving no-objection to AWP/B submitted by the NPC, for their approval by the PSC;
- Ensure the technical quality of the six-monthly PPRs. The PPRs will be prepared by the NPC, with inputs from the PTF. The BH will submit the PPR to the FAO/GEF Coordination Unit for comments, and the LTO for technical clearance. The PPRs will be submitted to the PSC for approval twice a year. The BH will upload the approved PPR to FPMIS.
- Supervise the preparation and ensure the technical quality of the annual Project Implementation Review (PIR). The PIR will be drafted by the NPC, with inputs from the PTF. The PIR will be submitted to the BH and the FAO-GEF Coordination Unit for approval and finalization. The FAO/GEF Coordination Unit will submit the PIRs to the GEF Secretariat and the GEF Evaluation Office, as part of the Annual Monitoring Review report of the FAO-GEF portfolio. The LTO must ensure that the NPC and the PTF have provided information on the co-financing provided during the year for inclusion in the PIR;
- Conduct annual (or as needed) supervision missions;
- Review the TORs for the mid-term evaluation/review, participate in the mid-term workshop with all key project stakeholders, development of an eventual agreed adjustment plan in project execution approach, and supervise its implementation; and
- Provide inputs for the TORs of the final evaluation as requested by FAO Office of Evaluation.

The HQ Officer is a member of the PTF, as a mandatory requirement of the FAO Guide to the Project Cycle. The HQ Officer has most relevant technical expertise - within FAO technical departments - related to the thematic of the project. The HQ Technical Officer will provide effective functional advice to the LTO to ensure adherence to FAO corporate technical standards during project implementation, in particular:

- Supports the LTO in monitoring and reporting on implementation of environmental and social commitment plans for moderate projects. In this project, the HQ officer will support the LTO in monitoring and reporting the identified risks and mitigation measures in close coordination with the project partners;
- Provides technical backstopping for the project work plan;

- Clears technical reports, contributes to and oversees the quality of PPRs;
- May be requested to support the LTO and PTF for implementation and monitoring; and
- Supports the LTO and BH in providing inputs to the TOR of the Final Evaluation as requested by OED.

The FAO-GEF Coordination Unit will act as FLO. The FAO/GEF Coordination Unit will review the PPRs and financial reports, and will review and approve budget revisions based on the approved Project Budget and AWP/Bs. The FAO/GEF Coordination Unit will review and provide a rating in the annual PIRs and will undertake supervision missions as necessary. The PIRs will be included in the FAO GEF Annual Monitoring Review submitted to GEF by the FAO GEF Coordination Unit. The FAO GEF Coordination Unit may also participate in the mid-term evaluation/review and final evaluation, and in the development of corrective actions in the project implementation strategy if needed to mitigate eventual risks affecting the timely and effective implementation of the project. The FAO GEF Coordination Unit will in collaboration with the FAO Finance Division request transfer of project funds from the GEF Trustee based on six-monthly projections of funds needed.

The FAO Financial Division will provide annual Financial Reports to the GEF Trustee and, in collaboration with the FAO-GEF Coordination Unit, request project funds on a six-monthly basis to the GEF Trustee.

3.1.2. Coordination with other initiatives

The project will closely collaborate with other child projects under the **TRI initiative**. The Global TRI Steering Committee (Program SC) will ensure alignment and synergies within the program during the implementation of the child projects

The project will collaborate with **other ongoing or planned GEF projects in Kenya**. It will ensure open and regular communication with the other on-going GEF projects to share lessons learned and avoid duplication, which should be mutually beneficial. The relevant projects are summarized in the table below.

Table 14: GEF projects in Kenya with which the TRI project will develop collaboration

GEF ID	Project Title	Project Objective	GEF Agency	Status
9326	RLACC - Rural Livelihoods' Adaptation to Climate Change in the Horn of Africa	To improve the resilience to climate change of pastoral and agro-pastoral communities in targeted areas	AfDB	Project Approved for implementation in February 2016
9241	Sixth Operational Phase of the GEF Small Grants Programme in Kenya	To enhance and maintain socio-ecological resilience of selected landscapes and seascapes through community-based initiatives in selected ecologically sensitive areas in Kenya	UNDP	Concept approved in June 2016
9139	Food-IAP: Establishment of the Upper Tana Nairobi Water Fund (UTNWF)	Conservation of the Upper Tana River basin with improved water quality and quantity for downstream users and maintaining regular flows of water throughout the year; enhancing ecosystem	UNEP	Project approved for implementation in July 2016

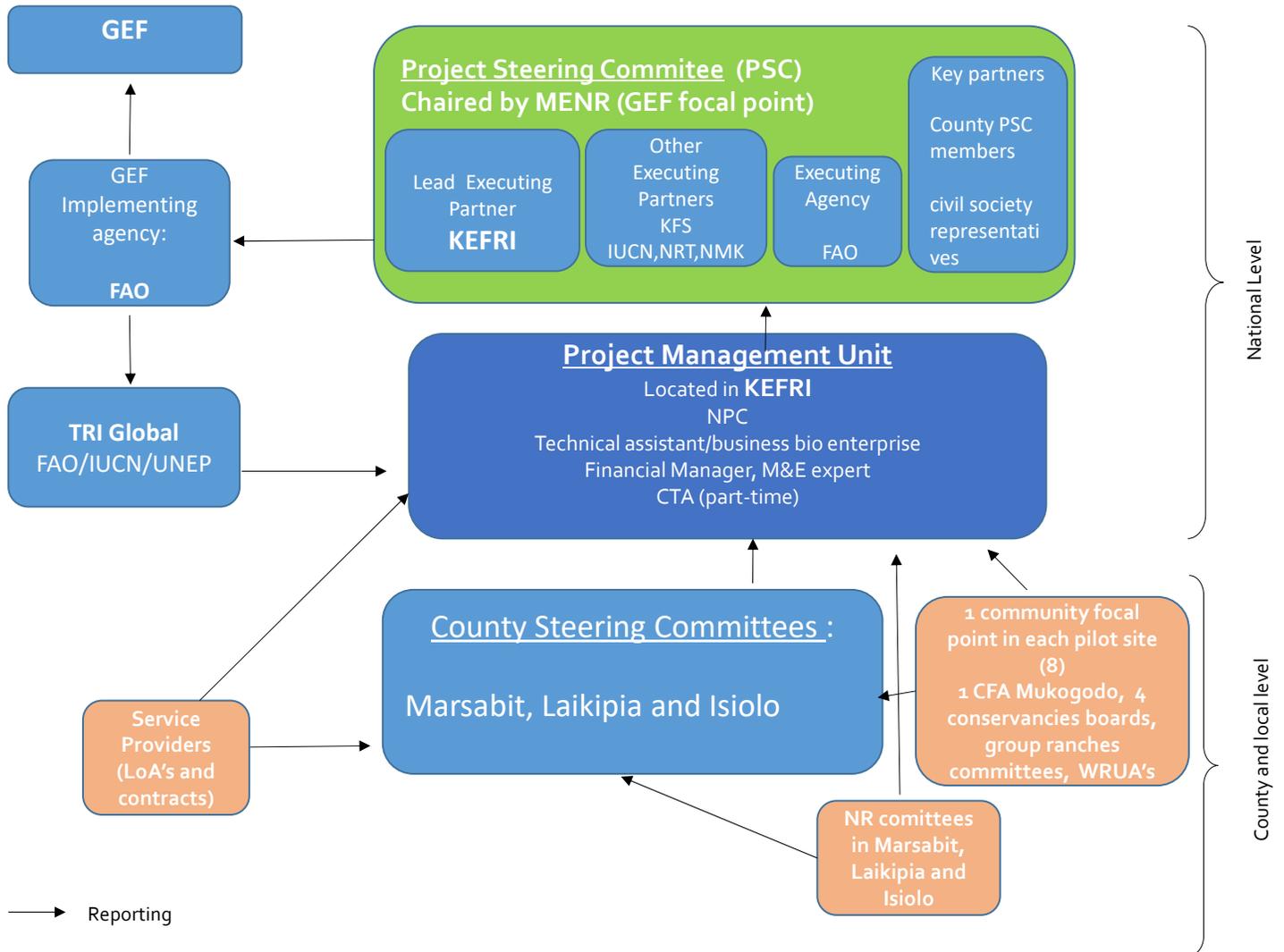
		services, improving human well-being and quality of life for upstream local communities.		
5272	Scaling up Sustainable Land Management and Biodiversity Conservation to Reduce Environmental Degradation in Small Scale Agriculture in Western Kenya	Promote the adoption and adaption of sustainable land and forest ecosystem management (SLEM) practices across the productive landscape of Kakamega-Nandi ecosystem	UNEP	Project approved for implementation in July 2016
5083	Capacity, Policy and Financial Incentives for PFM in Kirisia Forest and integrated Rangelands Management	To deliver multiple BD, CC and livelihood benefits from 91,452 ha of Kirisia Forest under PFM and 50,000 ha of rangelands under Holistic Natural Resources Management respectively	FAO	Project Approved for implementation in August 2016

3.2. IMPLEMENTATION ARRANGEMENTS

Organigram

The organigram below illustrate the project's implementation arrangement.

Figure 9 – Project organigram



The different organs of the organigrams are further described in the sections below.

National Project Steering Committee

Project implementation will take place through the national PSC, which will have the role of overseeing and coordinating the project's planning and implementation. It will be chaired by the MENR and will be comprised of representatives of the following institutions: FAO, KEFRI, KFS, IUCN, NRT, NMK, the 3 county governments, and the GEF focal point.

The PSC will meet at least once a year to:

- Provide guidance to the PMU to ensure project implementation is in accordance with the project document;
- Review and approve any proposed revisions to the project results framework and implementation arrangements;
- Review, amend (if appropriate) and endorse all Annual Work Plans and Budgets;

- Review project progress and achievement of planned results as presented in six-monthly PPRs, PIRs and Financial Reports;
- Ensure that co-financing support will be available on time;
- Advise on issues and problems arising during project implementation;
- Facilitate cooperation between all project partners and facilitate collaboration between the Project and other relevant programmes, projects and initiatives in the country; and
- Approve ToR for midterm and final evaluations.

The members of the PSC will each assure 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 the work plan of their agency, and (iv) facilitate the provision of co-financing to the project.

County project steering committees:

Three county project steering committees will also be set-up and will include representatives from the key institutions involved at the county level, namely county government representatives, local organizations such as the NRT, LWF, WWM, group ranch and community representatives, FAO and IUCN. As similar county project steering committees already exist in Marsabit and in Laikipia for the implementation of the Land Programme, these should be used for the TRI Kenya project. A new committee will however have to be created in Isiolo. The final member list of for will be established during the project inception phase following consultations with county authorities. The specific roles and responsibilities of these committees include:

- Represent the interests of key project stakeholders at the county level;
- Review and endorse county work plans;
- Ensure consistency with county development plans;
- Ensure linkages and provide recommendations to the PSC
- Monitor project progress, the achievement of project objectives and provide comments on key reports or outputs; and
- Meet at least twice a year, and on an ad hoc basis as necessary

PMU

A PMU funded by the GEF will be established within KEFRI premises in Nairobi, and will include:

- A National Project Coordinator (NPC), with a restoration background;
- A National technical assistant, with a business development and/or a bioenterprise background;
- A part-time Chief Technical Advisor (CTA) with a restoration background;
- A part-time Monitoring and Evaluation expert;
- A Financial Manager; and
- A Local Technician based in Gatab;

The project will also work through community focal points in each pilot site (8 in total), ensuring information and knowledge are well disseminated to local communities and helping the communities understanding the implementation modalities, the expected outputs and the proposed project activities. They will also be key actors in awareness raising activities.

The ToRs of PMU's staff are provided in Appendix 7. The PMU staff will be recruited by the project and will report (through the NPC) to the BH. The PMU will carry out its functions in line with FAO rules and regulations.

The PMU will act as Secretary for the national PSC. It will interact with Ministries for operational and institutional matters. Some key functions of the PMU are:

- Technically identify, plan, design and support all activities;
- Liaise with government agencies and regularly advocate on behalf of the project;
- Prepare the AWP/B and monitoring plan;
- Be responsible for day-to-day implementation of the project in line with the AWP;
- Ensure a results-based approach to project implementation, including maintaining a focus on project results and impacts as defined by the results framework indicators;
- Coordinate project interventions with other ongoing activities;
- Monitor project progress;
- Be responsible for the elaboration of FAO PPRs and the annual PIR; and
- Facilitate and support the mid-term evaluation/review and final evaluation of the project.

PMU staff will be supported by national and international consultants, which will be contracted during project implementation for shorter periods on an ad-hoc basis. The project will achieve a number of key outputs through LoA and individual contracts. These letters and contracts will be elaborated and signed between FAO and collaborating partners (including service providers). The service provider will then be administratively managed by FAO Kenya. Funds received by the service provider under a LoA or an individual contract will be used to execute the project activities in conformity with FAO's rules and procedures. The respective LoAs are listed under the "Contracts" budget line of the project budget. A specific list per activities will be provided in the revised version of the PRODOC.

National Project Coordinator

The NPC will lead the PMU and work closely with FAO offices and KEFRI. The NPC reports to the BH on operational issues and to the CTA on technical issues. The NPC will be in charge of daily project management and technical supervision including:

- Coordinating and closely monitoring the implementation of project activities;
- Day-to-day management;
- Coordination with related initiatives;
- Ensuring a high level of collaboration among participating institutions and organizations at the national and local levels;
- Tracking the project's progress and ensuring timely delivery of inputs and outputs;
- Supporting the CTA in implementing and managing the project's monitoring and communications plans;
- Organizing annual project workshops and meetings to monitor progress and preparing the AWP/B;
- Submitting the PPR with the AWP/B to the PSC and FAO;
- Acting as Secretary of the PSC;
- In cooperation with the CTA preparing the PIR, and supporting the organization of the mid-term evaluation/review and final evaluation;
- Under FAO rules and procedures and in conformity with this project document and the AWP/B, identify expenses and disbursements that should be requested to FAO for the timely execution of the project; and
- Monitor, provide technical support and assess the reports and outputs of the project's national consultants (financed by GEF funds).

Chief Technical Advisor

The CTA is part of the PMU, will ensure the sound implementation of project activities jointly with the NPC, and will ensure best international technical and management practices are integrated into project activities. The CTA will be responsible in coordination with NPC for the operational planning, management and monitoring & evaluation (M&E) of all project activities. He/she will provide technical support to the NPC and ensure a good implementation of the activities in line with the project result framework, work plan and approved budget.

The CTA will support all aspects of the day-to-day execution of the project. The CTA will support the NPC in reporting on project progress, and will contribute to the development of semi-annual PPRs and annual PIRs. In addition the CTA will:

- Ensure that latest and best international practices and approaches are reflected in the design and planning of project activities;
- Support the design of a participatory monitoring system for the project's work;
- Support real-time monitoring of project progress and the alerting of the BH and the LTO to potential problems that could result in delays in implementation;
- Help identify consultant candidates, especially international candidates;
- Support design of the project's work with stakeholders in the pilot areas;
- Help organize and supervise consultant inputs;
- Propose an approach to managing and sharing knowledge, and to identifying and disseminating lessons learned;
- Provide on-the-job capacity development to all members of the NCU;
- Communicate, advocate and engage in policy dialogue; and
- Ensure close collaboration with the Global Child Project.

Financial Manager

The financial manager, under the direct supervision of the FAO BH and in close consultation with the NPC, the LTO and the lead executing partners, will ensure a smooth and timely implementation of project activities in support of the results-based work plan, through operational and administrative procedures according to FAO rules and standards.

Local Project Technician

Under the supervision of the CTA and the NPC, the PMU will include a local technician that will either be a local expert or a United Nations Volunteer (UNV). It will be based in Gatab to supervise the work in Mount Kulal and its work will be covered under the IUCN LoA. It will ensure project activities on the ground are technically of high quality, firmly anchored into the local sustainable development processes, and contributing to the overall project objective.

3.3. RISK MANAGEMENT

3.3.1. Environmental and social risks

This section includes the environmental and social risks identified in the screening checklist exercise in annex 5.

3.3.2. Risk management strategy

Annex 6 provides a risk matrix with a risk management strategy.

3.4. PLANNING AND FINANCIAL MANAGEMENT

3.4.1. Financial plan

The total cost of the project will be USD 16,657,341, to be financed through a USD 4,157,341 GEF grant and USD 12,500,000 in co-financing from:

- KEFRI: i) WaTER project: USD 500,000; ii) CADEP-SFM project: USD 4,000,000; iii) Integrated program to build resilience to CC and adaptive capacity of vulnerable communities in Kenya: USD 2,000,000
- FAO Land Programme: USD 4,300,000
- FAO RAELOC: USD 1,700,000

The table below shows the costs by component and by sources of financing. FAO, as the GEF agency, will only be responsible for the execution of the GEF resources and FAO co-financing. All co-financing letters can be found in Annex 9.

Component/output	KEFRI WaTER	KEFRI CADEP-SFM	KEFRI Integrated program to	FAO Land Programme	FAO RAELOC	Total Co-financing	% Co-financing	GEF	% GEF	Total
Component 1: Policy Development and Integration										
Output 1.1: An FLR strategy is developed, including a roadmap and a monitoring framework to bridge the FLR gaps in the policy framework										
Output 1.2: Domestication of relevant international, and national NRM policies is facilitated at the county and local levels, especially as it relates to FLR	500,000	-	-	2,850,000	-	3,350,000	90%	368,085	10%	3,718,085
Output 1.3: Policy framework for management and utilization of NTFPS is developed and adopted										
Component 2: Implementation of Restoration Programs and Complementary Initiatives										
Output 2.1: Ecosystem services are assessed and characterized and land use and land cover changes in selected forests and rangelands are assessed										
Output 2.2: FLR activities are implemented in the two targeted landscapes and ecosystem management plans and community action plans for selected landscapes are developed and implemented	-	-	2,000,000	1,450,000	-	3,450,000	59%	2,431,725	41%	5,881,725
Output 2.3: Knowledge base on NTFPS in the two targeted landscapes and their commercial potential is generated										
Output 2.4: Bio-enterprises products and services are promoted and commercialized										
Component 3: Institutions, Finance, and Upscaling										
Output 3.1: Counties capacities in implementing FLR relevant policies are strengthened										
Output 3.2: Community land management committees are set-up and working in targeted project sites	-	2,000,000	-	-	1,300,000	3,300,000	81%	753,838	19%	4,053,838
Output 3.3: Restoration initiatives are coordinated at the national level										
Output 3.4: Access to climate and finance restoration is improved										
Component 4: Knowledge, Partnerships, Monitoring and Assessment										
Output 4.1: A national FLR Knowledge Management system is developed and Implemented	-	2,000,000	-	-	400,000	2,400,000	86%	405,723	14%	2,805,723
Output 4.2: Knowledge shared and received within Kenya and outside										
Output 4.3: Project monitoring system providing systematic information on progress in meeting project outcomes and output targets is implemented										
Project Management	-	-	-	-	-	-	0%	197,968	100%	197,968
Total Project	500,000	4,000,000	2,000,000	4,300,000	1,700,000	12,500,000	75%	4,157,340	25%	16,657,340

3.4.2. GEF Contribution

The GEF funds will finance inputs needed to generate the outputs and outcomes under the project. These include:

- Local and international consultants for technical support and project management;
- Support to direct monitoring activities;
- Support through LoA/contracts with technical institutions and service providers supporting the delivery of specific project activities on the ground;
- International flights and local transport and minor office equipment; and
- Training and awareness raising material. GEF resources will also finance publications for awareness raising and education on FLR.

3.4.3. Government contribution

As detailed in the table above:

- KEFRI will provide USD 6,500,000 in kind cofinancing consisting mainly of staff time and through the WaTER project (USD 500,000); CADEP-SFM (USD 4,000,000); Integrated program to build resilience to CC and adaptive capacity of vulnerable communities in Kenya (USD 2,000,000).

3.4.4. FAO Contribution

The FAO will provide USD 4,300,000 in-kind co-financing through the Land Programme and USD 1,700,000 in-kind co-financing through RAELOC, and as well technical assistance, support, training and supervision in the execution of activities financed by GEF resources.

3.4.5. Contributions from other co-financiers

Not anticipated

3.4.6. Financial management and reporting on GEF resources

Financial management and reporting in relation to the GEF resources will be carried out in accordance with FAO's rules and procedures, and in accordance with the agreement between FAO and the GEF Trustee. On the basis of the activities foreseen in the budget and the project, FAO will undertake all operations for disbursements, procurement and contracting for the total amount of GEF resources.

Financial Records

FAO shall maintain a separate account in United States dollars for the project's resources showing all income and expenditures. Expenditures incurred in a currency other than United States dollars shall be converted into United States dollars at the United Nations operational rate of exchange on the date of the transaction. FAO shall administer the project in accordance with its regulations, rules and directives.

Financial Reports

FAO-Kenya as the BH shall prepare six-monthly project expenditure accounts and final accounts for the project, showing amount budgeted for the year, amount expended since the beginning of the year, and separately, the un-liquidated obligations as follows:

1. Details of project expenditures on a component-by-component and output basis, reported in line with project budget codes as set out in the Project Document, as at 30 June and 31 December each year;

2. Final accounts on completion of the project on a component and output-by-output basis, reported in line with project budget codes as set out in the Project Document; and
3. A final statement of account in line with FAO Oracle project budget codes, reflecting actual final expenditures under the project, when all obligations have been liquidated.

Financial statements:

Within 30 working days of the end of each semester, the FAO Representation in Kenya shall submit six-monthly statements of expenditure of GEF resources, to present to the PSC. The purpose of the financial statement is to list the expenditures incurred on the project on a six monthly basis compared to the budget, so as to monitor project progress and to reconcile outstanding advances during the six-month period. The financial statement shall contain information that will serve as the basis for a periodic revision of the budget.

The BH will submit the above financial reports for review and monitoring by the LTO and the FAO GEF Coordination Unit. Financial reports for submission to the donor (GEF) will be prepared in accordance with the provisions in the GEF Financial Procedures Agreement and submitted by the FAO Finance Division.

The BH in accordance with FAO standard guidelines and procedures will prepare semi-annual budget revisions.

Responsibility for Cost Overruns

The BH is authorized to enter into commitments or incur expenditures up to a maximum of 20 percent over and above the annual amount foreseen in the project budget under any budget subline provided the total cost of the annual budget is not exceeded.

Any cost overrun (expenditure in excess of the budgeted amount) on a specific budget subline over and above the 20 percent flexibility should be discussed with FAO GEF Coordination Unit with a view to ascertaining whether it will involve a major change in project scope or design. If it is deemed to be a minor change, the BH shall prepare a budget revision in accordance with FAO standard procedures. If it involves a major change in the project's objectives or scope, a budget revision and justification should be prepared by the BH for discussion with the GEF Secretariat.

Savings in one budget subline may not be applied to overruns of more than 20 percent in other sublines even if the total cost remains unchanged, unless this is specifically authorized by FAO GEF Coordination Unit upon presentation of the request. In such a case, a revision to the project document amending the budget will be prepared by the BH.

Under no circumstances can expenditures exceed the approved total project budget or be approved beyond the NTE date of the project. Any over-expenditure is the responsibility of the BH.

Audit

The project shall be subject to the internal and external auditing procedures provided for in FAO financial regulations, rules and directives and in keeping with the Financial Procedures Agreement between the GEF Trustee and FAO.

The audit regime at FAO consists of an external audit provided by the Auditor-General (or persons exercising an equivalent function) of a member nation appointed by the governing bodies of the Organization and reporting directly to them and an internal audit function headed by the Inspector-General who reports directly to the Director-General. This function operates as an integral part of the Organization under policies established by senior management, and furthermore has a reporting line to the governing bodies. Both functions are required under the Basic Texts of FAO which establish a framework for the terms of reference of each. Internal audits of interest accounts, records, bank reconciliation and asset verification take place at FAO field and liaison offices on a cyclical basis.

Procurement

The BH, in close collaboration with the NPC, the LTO and the Budget and Operations Officer will procure the equipment and services provided for in the detailed budget in Appendix 3, in line with the AWP and Budget and in accordance with FAO's rules and regulations.

Careful procurement planning is necessary for securing goods, services and works in a timely manner, on a "Best Value for Money" basis, and in accordance with the Rules and Regulations of FAO. It requires analysis of needs and constraints, including forecast of the reasonable timeframe required to execute the procurement process. Procurement and delivery of inputs in technical cooperation projects follow FAO's rules and regulations for the procurement of supplies, equipment and services (i.e. Manual Sections 502 and 507). Manual Section 502: "Procurement of Goods, Works and Services" establishes the principles and procedures that apply to procurement of all goods, works and services on behalf of the Organization, in all offices and in all locations, with the exception of the procurement actions described in Appendix A - Procurement Not Governed by Manual Section 502. Manual Section 507 establishes the principles and rules that govern the use of Letters of Agreement (LoA) by FAO for the timely acquisition of services from eligible entities in a transparent and impartial manner, taking into consideration economy and efficiency to achieve an optimum combination of expected whole life costs and benefits ("Best Value for Money").

As per the guidance in FAO's Project Cycle Guide, the BH will draw up an annual procurement plan for major items, which will be the basis of requests for procurement actions during implementation. The first procurement plan will be prepared at the time of project start-up, if not sooner, in close consultation with the NPC and LTU. The plan will include a description of the goods, works, or services to be procured, estimated budget and source of funding, schedule of procurement activities and proposed method of procurement. In situations where exact information is not yet available, the procurement plan should at least contain reasonable projections that will be corrected as information becomes available.

The procurement plan shall be updated every 12 months and submitted to FAO BH and LTO for clearance, together with the AWP/B and annual financial statement of expenditures report for the next instalment of funds.

The BH, in close collaboration with the NPC, the LTO and the Finance Officer will procure the equipment and services provided for in the detailed budget in Appendix 3, in line with the AWP and Budget and in accordance with FAO's rules and regulations.

SECTION 4. MONITORING, REPORTING AND EVALUATION

4.1. OVERSIGHT AND MONITORING RESPONSIBILITIES

The M&E tasks and responsibilities, specifically described in the Monitoring and Evaluation table below, will be achieved through:

- Day-to-day monitoring and supervision missions of project progress (PMU);
- Technical monitoring of indicators (PMU);
- Mid-term evaluation/review and final evaluation (independent consultants and FAO Office of Evaluation); and
- Oversight, monitoring and supervision missions (FAO).

At the beginning of the implementation of the GEF project, the PMU will establish a system to monitor the project's progress. Participatory mechanisms and methodologies to support the monitoring and evaluation of performance indicators and outputs will be developed during the project inception workshop. The tasks of monitoring and evaluation will include: (i) presentation and explanation (if needed) of the project's Results Framework with all project stakeholders; (ii) review of monitoring and evaluation indicators and their baselines; (iii) preparation of draft clauses that will be required for inclusion in consultant contracts, to ensure compliance with the monitoring and evaluation reporting functions (if applicable); and (iv) clarification of the division of monitoring and evaluation tasks among the different stakeholders in the project. The CTA will prepare a draft monitoring and evaluation matrix that will be discussed and agreed upon by all stakeholders during the inception workshop. The M&E matrix will be a management tool for the NPC, and the Project Partners to: i) bi-annually monitor the achievement of output indicators; ii) annually monitor the achievement of outcome indicators; iii) clearly define responsibilities and verification means; iv) select a method to process the indicators and data.

The M&E Plan will be prepared by the CTA in the first three months of the PY1 and validated with the PSC. The M&E Plan will be based on the M&E Table below and the M&E Matrix and will include: i) the updated results framework, with clear indicators per year; ii) updated baseline, if needed, and selected tools for data collection (including sample definition); iii) narrative of the monitoring strategy, including roles and responsibilities for data collection and processing, reporting flows, monitoring matrix, and brief analysis of who, when and how will each indicator be measured. Responsibility of project activities may or may not coincide with data collection responsibility; iv) updated implementation arrangements, if needed; v) inclusion of the tracking tool indicators, data collection and monitoring strategy to be included in the mid-term review and final evaluation; and vi) calendar of evaluation workshops, including self-evaluation techniques.

The day-to-day monitoring of the project's implementation will be the responsibility of the NPC and will be driven by the preparation and implementation of an AWP/B followed up through six-monthly PPRs. The preparation of the AWP/B and six-monthly PPRs will represent the product of a unified planning process between main project stakeholders. As tools for results-based-management (RBM), the AWP/B will identify the actions proposed for the coming project year and provide the necessary details on output and outcome targets to be achieved, and the PPRs will report on the monitoring of the implementation of actions and the achievement of output and outcome targets. Specific inputs to the AWP/B and the PPRs will be prepared based on participatory planning and progress review with all stakeholders and coordinated and facilitated through project planning and progress review workshops. These contributions will be consolidated by the NPC in the draft AWP/B and the PPRs.

An annual project progress review and planning meeting should be held with the participation of the project partners to finalize the AWP/B and the PPRs. Once finalized, the AWP/B and the PPRs will be submitted to the FAO LTO for technical clearance, and to the Project Steering Committee for revision and approval. The AWP/B will be developed in a manner consistent with the Project Results Framework to ensure adequate fulfillment and monitoring of project outputs and outcomes.

Following the approval of the Project, the PY1 AWP/B will be adjusted (either reduced or expanded in time) to synchronize it with the annual reporting calendar. In subsequent years, the AWP/Bs will follow an annual preparation and reporting cycle as specified below.

Indicators and information sources

In order to monitor the outputs and outcomes of the project, including contributions to adaptation benefits, a set of indicators is set out in the Project Results Framework. The Project Results Framework indicators and means of verification will be applied to monitor both project performance and impact. Following FAO monitoring procedures and progress reporting formats, data collected will be sufficiently detailed that can track specific outputs and outcomes, and flag project risks early on. Output target indicators will be monitored on a six-monthly basis, and outcome target indicators will be monitored on an annual basis, if possible, or as part of the mid-term and final evaluations.

Information sources and means of verification for the measurement of indicators are specified in the project results framework for all indicators.

4.2. REPORTING

Specific reports that will be prepared under the monitoring and evaluation plan are: (i) Project inception report; (ii) Annual Work Plan and Budget (AWP/B); (iii) Project Progress Reports (PPRs); (iv) Annual Project Implementation Review (PIR); (v) Technical reports; (vi) Co-financing reports; (vii) GEF tracking tools; and (viii) Terminal Report.

Project Inception Report

After approval of the project, an inception workshop will be held. Immediately after the workshop, the NPC will prepare a Project Inception Report in consultation with FAO LTO, BH and national partners. 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 and the M&E Matrix (see above). The draft inception report will be circulated to FAO and the PSC for review and comments before its finalization, no later than three months after project start-up. The report will be cleared by the FAO BH, LTO and the FAO/GEF Coordination Unit. The BH will upload it in FPMIS.

Results-based Annual Work Plan and Budget (AWP/B)

The NPC will present a draft AWP/B to the PSC no later than 10 December of each year. The AWP/B should include detailed activities to be implemented by project outcomes and outputs and divided into monthly timeframes and targets and milestone dates for output and outcome 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 FAO Representation in Kenya will circulate the draft AWP/B to the FAO Project Task Force and will consolidate and submit FAO comments. The AWP/B will be reviewed by the PSC and the PMU will incorporate any comments. The final AWP/B will be sent to the PSC for approval and to FAO for final no-objection. The BH will upload the AWP/Bs in FPMIS.

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 1). The PPRs are used to identify constraints, problems or bottlenecks that impede timely implementation and take appropriate remedial action. PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the Project Results Framework, AWP/B and M&E Plan. The BH has the responsibility to coordinate the preparation and finalization of the PPR. Each semester the NPC will prepare a draft PPR, and will collect and consolidate any comments from the FAO PTF. The NPC will submit the final PPRs to the FAO Representative in Kenya every six months, prior to 10 June (covering the period between January and June) and before 10 December (covering the period between July and December). The July-December report should be accompanied by the updated AWP/B for the following Project Year (PY) for review and no-objection by the FAO PTF. After LTO, BH and FLO clearance, the FLO will ensure that project progress reports are uploaded in FPMIS in a timely manner.

Annual Project Implementation Review (PIR)

The BH will be responsible for the preparation of an annual PIR covering the period July (the previous year) through June (current year) to be submitted to the FLO for review and approval no later than early July each year. The FAO GEF Coordination Unit will submit the PIR to the GEF Secretariat and GEF Evaluation Office as part of the Annual Monitoring Review report of the FAO-GEF portfolio. PIRs will be uploaded on the FPMIS by the FAO GEF Coordination Unit.

Key milestones for the PIR process:

- Early July: the LTOs submit the draft PIRs (after consultations with BHs, project teams) to the FAO GEF Coordination Unit (faogef@fao.org , copying respective GEF Unit officer) for initial review;
- Mid July: FAO GEF Coordination Unit responsible officers review main elements of PIR and discuss with LTO as required;
- Early/mid-August: FAO GEF Coordination Unit prepares and finalizes the FAO Summary Tables and sends to the GEF Secretariat by (date is communicated each year by the GEF Secretariat through the FAO GEF Unit);
- September/October: PIRs are finalized. PIRs carefully and thoroughly reviewed by the FAO GEF Coordination Unit and discussed with the LTOs for final review and clearance;
- Mid November: (date to be confirmed by the GEF): the FAO GEF Coordination Unit submits the final PIR reports -cleared by the LTO and approved by the FAO GEF Coordination Unit- to the GEF Secretariat and the GEF Independent Evaluation Office.

Technical Reports

Technical reports will be prepared by national, international consultants (partner organizations under LOAs) as part of project outputs and to document and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by the PMU to the BH who will share it with the LTO. The LTO will be responsible for ensuring appropriate technical review and clearance of said report. The BH will upload the final cleared reports onto the FPMIS. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

Co-financing Reports

The BH, with support from the PMU, will be responsible for collecting the required information and reporting on co-financing as indicated in the Project Document/CEO Request. The PMU will compile the information received from the executing partners and transmit it in a timely manner to the LTO and BH. The 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. The format and tables to report on co-financing can be found in the PIR.

GEF Tracking Tools

In line with GEF requirement, the GEF Biodiversity, Climate Change Mitigation, Land Degradation, Sustainable Forest Management tracking tools, as compiled in the overall tracking tool for TRI projects, will be submitted at three moments: (i) with the project document at CEO endorsement; (ii) at the project's mid-term evaluation/review; and (iii) with the project's terminal evaluation or final completion report. The TT will be uploaded in FPMIS by the FAO GEF Coordination Unit. The TT are developed by the Project Design Specialist, in close collaboration with the FAO Project Task Force. They are filled in by the PMU and made available for the mid-term review and again for the final evaluation.

Terminal Report

Within two months before the end date of the project, and one month before the Final Evaluation, the PMU will submit to the BH and LTO a draft 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 donor 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, without unnecessary background, narrative or technical details. 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 insuring sustainability of project results.

4.3. EVALUATION

A Mid-Term Review/Evaluation 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/evaluation will be instrumental for bringing improvement in the overall project design and execution strategy for the remaining period of the project's term. FAO will arrange for the mid-term review/evaluation in consultation with the project partners. The evaluation will, inter alia:

- Review the effectiveness, efficiency and timeliness of project implementation;
- Analyze effectiveness of partnership arrangements;
- Identify issues requiring decisions and remedial actions;
- Propose any mid-course corrections and/or adjustments to the implementation strategy as necessary; and
- Highlight technical achievements and lessons learned derived from project design, implementation and management.

It is recommended that an independent Final Evaluation (FE) be carried out three months prior to the terminal review meeting of the project partners. The FE will aim to identify the project impacts and sustainability of project results and the degree of achievement of long-term results. This evaluation will also have the purpose of indicating future actions needed to sustain project results and disseminate products and best-practices within the country and to neighboring countries.

4.4. M&E PLAN

The table below provides a summary of the main M&E reports, responsible parties and timeframe.

Table 15: Summary of M&E Related Costs

M&E Activity	Responsible Party	Timeframe	budget
Inception Workshop (IW)	PMU, FAO Kenya	Within two months of project start up	USD 10,000
Surveys to determine TT baseline values	PMU and service providers	Within three months of project start up	USD 0 - data is collected by the PMU.
Project Inception Report	PMU, cleared by FAO LTO, LTU, BH, and the GCU	Immediately after the workshop.	USD 0 - project inception report is developed by the PMU.
Field based impact monitoring	PMU, project partners and local organizations.	Periodically - to be determined at inception workshop.	USD 30,000
Supervision visits and rating of progress in PPRs and PIRs	PMU; FAO (FAO Kenya, LTO). FAO-GCU may participate in the visits if needed.	Annual or as required	The visits of the LTO and the GCU will be paid by GEF agency fee. The visits of the NPC and CTA will be paid from the project travel budget
Project Progress Reports	BH with support from PMU, with inputs from KEFRI, PSC members and other partners	Semi-annual	USD 0 (as completed by CTA and PMU)
Project Implementation Review report	BH (in collaboration with the PMU and the LTO) Drafted by the NPC, with the supervision of the LTO and BH. Approved and submitted to GEF by the FAO-GCU	Annual	Paid by GEF agency fee
Tracking Tool	PMU supported by the LTO	Project start-up, mid-Term and project end.	USD 0 - data is collected by the PMU.
Co-financing Reports	BH with support from PMU and NPC with input from other co-financiers	Annual	Completed by NPC and CTA
Technical reports	PMU, BH, LTO & Participating Units	As appropriate	USD 10,000 (Report on best practices and lessons learned)
Household survey baseline assessment	PMU, enumerators	Within 6 month of project start-up	USD 20,000
Mid-term Review (MTR)	MTR: FAO Independent Evaluation Office, in consultation with the	At mid-point of project implementation	*USD 30,000 for independent consultants and associated costs. In addition the agency fee

	project task force , including the FAO-GEF Coordination Unit and others		will pay for expenditures of FAO staff time and travel
Final evaluation	Under the responsibility of FAO Independent Office of Evaluation in consultation with the project team including the GCU and other partners	At the end of project implementation	*USD 40,000 for external, independent consultants and associated costs. In addition the agency fee will pay for expenditures of FAO staff time and travel
Terminal Report	PMU, LTO, TCSR Report Unit	At least two months before the end date of the Execution Agreement	USD 7,000
Total Budget			USD 147,000

*The estimated costs of the MTR and TE have been proposed based on the intention to group the FAO TRI child projects together and carry out a cluster evaluation where possible. Technically and from a project management point of view, the TRI child project teams will benefit from the knowledge sharing and exchange of lessons

4.5. COMMUNICATION AND VISIBILITY

In Component 3, the activities related to national level capacity building will have high visibility as it will involve all the key sectors and respective technical officers, and the civil society. The different planned validation workshop (for the restoration strategy or the Natural resources access and benefits sharing” policy) will offer high visibility to the project.

A communication plan will be developed early in the project, describing how the direct and indirect beneficiaries will be regularly informed of the achievements of the project. This will be implemented by the Department of Communication of FAO Kenya together with the PMU.

The wide range of communication and visibility tools and approaches are planned throughout the implementation period of the project to raise awareness of the project's key messages, achievements and support scaling-up of the results, including:

- Articles including testimonies of beneficiaries regularly developed and posted on the websites of KEFRI, FAO and GEF, also in the bulletin of FAO Kenya, in the local press, but also in the Knowledge management platform to be established by the project;
- A range of different forms of communication and visibility raising activities will be carried out during the implementation period of this project:
 - Leaflets showing the achievements and impact will be produced and will carry GEF logos and FAO;
 - Creation of a FLR knowledge management platform;
 - Press releases will be regularly prepared and disseminated;
 - Open houses will be held to inform the public of the success of the project for replication;
 - Signposts displaying GEF and FAO logos with a key project message will be made and posted on the intervention sites;

- Stickers with the logos of the GEF and FAO will be produced and displayed on any hardware available all throughout the project.
- A Roll Up banner will be designed and placed in key locations (FAO offices, KEFRI, special events etc.)

At the end of the project, in conjunction with the terminal workshop a daylong meeting will be held to disseminate the project results, key lessons learnt and best practices captured through the project. This will also be documented through the end of project newsletter.

ANNEXES

ANNEX 1: RESULTS MATRIX

Results Chain	Indicators	Baseline	Mid-term milestone	Target	Means of Verification (MOV)	Assumptions
Development objective: to contribute to the restoration and maintenance of degraded and deforested landscapes in arid and semi-arid lands in Kenya for resilient economic development and livelihoods and improved ecosystem functioning, in support of Kenyan pledge to the Bonn Challenge.						
Project Objective: To restore deforested and degraded lands through the FLR approach and enhance the socioeconomic development of local communities through the development of bio-enterprises of NTFPS in arid and semi-arid lands.	(i) % of land that is degraded over total land area in targeted landscapes	<p>Mt. Kulal forest itself is more or less intact, though degradation is apparent around the settlements like Gatab. Mount Kulal forest core zone is 1,100ha. Between the period of 1986 and 2014 the Mt. Kulal forest lost approximately 20% of its forest cover (Cuni Sanchez 2015).</p> <p>Mukogodo forest covers an area of 30,189 ha. Mukogodo landscape is facing a myriad of constraints, problems and challenges, which pose a great threat to its sustainability. According to Bussmann, 2009, the remaining forest area is much smaller, 2700 ha. These include overgrazing, increased settlement in the forest reserve, erosion and inadequate utilization of the indigenous</p>	(i) 5% decrease	(i) 20% decrease (feasibility to be confirmed through ROAM assessment)	GEF TTs Collect Earth complemented with biophysical survey (e.g. based on LADA local) and using Collect Mobile ROAM report	

Results Chain	Indicators	Baseline	Mid-term milestone	Target	Means of Verification (MOV)	Assumptions
		knowledge, increased pressure from the neighboring communities and increased risks for fire outbreak. Surrounding conservancies (rangelands) operated under NRT umbrella cover respectively: i) Lekurruki conservancy: 15,872 ha; ii) and il Ngwesi (9,470 ha), iii) Oldonyiro conservancy (52,500 ha), and iv) Leparua conservancy (34,200 ha) and the Makurian group ranch (5,390 ha) and Kurikuri group ranch (3,340 ha). Rangeland are degraded, including bare soils. Their exact level of degradation will be assessed during the ROAM assessment				
	(ii) # of people benefiting from FLR interventions	No benefit has been derived from TRI yet	-	8120 households directly benefitting from project activities (tbc through surveys at project inception)	Socioeconomic household surveys through Collect Mobile	
	(iii) # of tons of CO2e directly mitigated through project activities over a 20-year period	0	-	820,089 t CO2-eq	EXACT	
Component 1: Policy Development and Integration						

Results Chain	Indicators	Baseline	Mid-term milestone	Target	Means of Verification (MOV)	Assumptions
Output 1.1: An FLR strategy is developed, including a roadmap and a monitoring framework to bridge the FLR gaps in the policy framework						
Output 1.2: Domestication of relevant international, national NRM policies is facilitated at the county and local levels, especially as it relates to FLR						
Output 1.3: Policy framework for management and utilization of Non-Timber Forest Products and Services (NTFPS) is developed and adopted						
Component 2: Implementation of Restoration Programs and Complementary Initiatives						
Outcome 2: 152,661 ha are under improved land management (including 8,700 ha directly restored and 55,352 ha indirectly restored)	(i) # of ha of land under improved land management plans in the two landscapes	<p>i.a) Mt. Kulal forest is not gazetted and is managed by CBO "wazee wa mazingira" (WWM). A plan for use of forest resources on Mt Kulal is being developed (draft ready by July 2017) with support from National Museum of Kenya (NMK)</p> <p>i.b) Mukogodo forest is managed by the ILMAMUSI Community Forest Association (CFA). Their management plan is outdated.</p> <p>i.c) Lekurruki conservancy management plan drafted. Include a "rangeland conditions improvement" objective</p> <p>i.d) Il Ngwesi, Oldonyiro and Leparua conservancy management plan outdated.</p>	<p>Mount Kulal forest resources management plan is operationalised and implemented</p> <p>Mukogodo ILMAMUSI CFA management plan developed</p> <p>Actions planned under the "rangeland conditions improvement" objective are agreed upon</p> <p>Conservancies management plan developed, including rangeland</p>	<p>(i) 152,661 ha in total, as follows:</p> <p>i.a) The total Mount Kulal forest core zone is under improved management (1,100ha)</p> <p>i.b) Mukogodo forest under improved management (30,189 ha total area, core zone: 2700 ha)</p> <p>i.c) Lekurruki conservancy is under improved management (15,872 ha)</p> <p>i.d) Il Ngwesi conservancy is under improved management (9,470 ha)</p>	<p>Management plans and progress reports</p>	<p>Local communities are willing to engage in restoration and bio-enterprise development.</p> <p>Ethnic and land related conflict remain at a level where project activities are not threatened and where local population can remain on project sites. Security situation is stable, especially in Marsabit county, allowing project team to implement their activities in the ground.</p> <p>CC impacts remain in the scale of what was projected and the intensity and frequency of droughts remain at a scale that does not</p>

Results Chain	Indicators	Baseline	Mid-term milestone	Target	Means of Verification (MOV)	Assumptions
		(i.e) n/a (i.f) n/a (i.g) Makurian and Kuri kuri group ranches have outdated management plans	restoration objectives Management plans updated, including rangeland restoration objectives	(i.e) Oldonyiro conservancy is under improved management (52,500 ha) (i.f) Leparua conservancy is under improved management (34,200 ha) (i.g) Makurian and Kuri kuri group ranches are under improved management		hinder restoration activities. Activities respond to the real needs of local communities (including women and vulnerable people).
	(ii) # of hectares under direct restoration, stratified by land management practices	In project implementation zone, restoration has not been implemented so far. Between the period of 1986 and 2014 the Mt. Kulal forest lost approximately 20% of its forest cover (Cuni Sanchez 2015). Mukogodo forest covers an area of 30,189 ha. According to Bussmann, 2009, the remaining forest area is much smaller, 2700 ha. Surrounding conservancies (rangelands) operated under NRT umbrella cover respectively: i) Lekurruki conservancy: 15,872 ha; ii)		(ii) Direct restoration of 8,700 ha stratified as follows: ii. a) Natural forest regeneration of 1,100 ha in MKBR (including the enrichment of 200 ha of critically degraded areas within the MKBR core zone); ii. b) 400 ha of improved grasslands in lower MKBR; ii. c) 200 ha of agroforestry in MKBR; ii. d) Natural forest regeneration of 1,000 ha in Mukugodo Forest; ii. e) Enrichment of 400	GEF TTs Collect Earth complemented with biophysical survey (e.g. based on LADA local) and using Collect Mobile Bonn Challenge Progress-Tracking Protocol (to be developed) ROAM report	

Results Chain	Indicators	Baseline	Mid-term milestone	Target	Means of Verification (MOV)	Assumptions
		II Ngwesi (9,470 ha), iii) Oldonyiro conservancy (52,500 ha), and iv) Leparua conservancy (34,200 ha) and the Makurian group ranch (5,390 ha) and Kurikuri group ranch (3,340 ha).		ha of critically degraded areas within Mukogodo forest); ii. f) 5600 ha of improved grasslands in Mukogodo landscape.		
	(iii) # of ha directly contributing to biodiversity conservation and sustainable use	All project sites have the potential to contribute to biodiversity conservation	75% of the draft management plans for the project sites (cf above) include biodiversity	(iii) 152,661 ha (100% of the management plans for the project sites (cf above) include biodiversity	Management Plans	
	(iv) # of people directly benefiting from project activities (including capacity building events and trainings) (m/f)	0	Tbd during the baseline assessment	circa 8120 HH	Gender disaggregated participation tracking data	
<p>Output 2.1: Ecosystem services are assessed and characterized and land use and land cover changes in selected forests and rangelands are assessed</p> <p>Output 2.2: FLR activities are implemented in the two targeted landscapes and ecosystem management plans and community action plans for selected landscapes are developed and implemented</p> <p>Output 2.3: Knowledge base on NTFPS in the two targeted landscapes and their commercial potential is generated</p> <p>Output 2.4: Bio-enterprises products and services are promoted and commercialized</p>						
Component 3: Institutions, Finance, and Upscaling						
Outcome 3: Strengthened institutional capacities and financing	(i) # of capacity building events and # of m/f attending	(i) 0	2 events, 25 people trained, 13 male, 12 female	(i) 4 events, 50 people trained (25 male, 25 female)	Capacity development scorecard GEF TTs	Concerned institutions are willing to collaborate together and to

Results Chain	Indicators	Baseline	Mid-term milestone	Target	Means of Verification (MOV)	Assumptions
arrangements are in place and facilitate large scale restoration and maintenance of critical landscapes	(ii) Evidence of increased capacities of community land management committees through scorecards	(ii) tbd		(ii) Increased capacity level evidenced through scorecards	Capacity development scorecards	<p>collaborate with the FLR coordination mechanism.</p> <p>The Landscape Restoration Technical Working Group remain in place during the first years of project implementation, while the FLR coordination mechanism is designed and established.</p> <p>The staff from government institutions is willing to attend trainings and participate actively.</p> <p>There is sufficient interest from communities to learn about FLR.</p>
	(iii) # of coordination mechanisms in place at the national level	While there is a FLR Working Group hosted by KFS, its aim and objectives are limited to project level activities and do not focus on policy and institutional coordination aspects		(iii) 1 National coordination mechanism in place for FLR planning, resources mobilisation, coordinating of implementation and monitoring	Coordination mechanism for FLR minutes	
	(iv) # of investment tools developed/improved to support FLR initiatives (i.e credit lines to bioenterprises, functional FMCTF)	A Forest Conservation and Management Trust Fund (FCMTF) is being established but is not operational yet	-	(iv) At least 3 investment tools are developed or improved (ie credit lines to bioenterprises, functional FMCTF, etc.)		
<p>Output 3.1: Counties capacities in implementing FLR relevant policies are strengthened</p> <p>Output 3.2: Community land management committees are set-up and working in targeted project sites</p> <p>Output 3.3: Restoration initiatives are coordinated at the national level</p> <p>Output 3.4: Access to climate and restoration finance is improved</p>						
Component 4: Knowledge, Partnerships, Monitoring and Assessment						

Results Chain	Indicators	Baseline	Mid-term milestone	Target	Means of Verification (MOV)	Assumptions
Outcome 4: Improved FLR monitoring, reporting and knowledge dissemination at national level (including for the NCP)	(i) # of operational FLR information systems established	Currently there is no harmonized FLR information system.	-	(i) A national FLR Knowledge Management system is developed and implemented	Project implementation and M&E Reports GEF TT Meeting minutes Adaptive management scoring tool (tbd) Distribution and download records, and other online platform metrics	TRI is able to organize the planned global events Stakeholders provide consent for sharing information, in particular for the movie. The project partners provides quality reports in a timely manner. Accurate data is available to perform project M&E tasks.
	(ii) # of Participation in TRI Annual Knowledge Sharing events, Biennial Restoration Finance events, and TRI-sponsored South-South exchanges that address restoration	No participation yet	-	Participation in 8 events	Back to office Reports Proceedings of TRI Global network	
	(iii) # of TRI-Kenya knowledge products developed, disseminated and accessed through relevant knowledge platforms	0 knowledge products	5 knowledge products	10 knowledge products	GEF TT Products and platform data	

Results Chain	Indicators	Baseline	Mid-term milestone	Target	Means of Verification (MOV)	Assumptions
	(iv) # of lessons learned on forest landscape restoration shared and accessed by stakeholders	0	5	10	GEF TT and project monitoring system	
<p>Output 4.1: A national FLR Knowledge Management system is developed and Implemented</p> <p>Output 4.2: Knowledge shared and received within Kenya and outside</p> <p>Output 4.3: Results –based management project monitoring system providing systematic information on progress is established</p>						

ANNEX 2: WORK PLAN

Output	Activity	Responsible	Year 1				Year 2				Year 3				Year 4				Year 5				
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
PROJECT START UP	<ul style="list-style-type: none"> Recruit PMU members of PMU team Orient PMU members National Inception workshop Local level inception workshops at landscape level Undertake FPIC step 3 (Design a participatory communication plan and carry out iterative discussions through which project information will be disclosed in a transparent way) Undertake FPIC step 4 (Reach consent, document Indigenous Peoples’ needs that are to be included into the project, and agree on a feedback and complaints mechanism) LOA among participating agencies 																						
Component 1: Policy Development and Integration																							
Outcome 1: The national and county level policy and regulatory frameworks are strengthened to support forest and landscape restoration in Kenya																							
Output 1.1: An FLR strategy is developed, including a roadmap and a monitoring framework to bridge the FLR gaps in the policy framework	Activity 1.1.1: Review the policy and legal framework for upscaling landscape restoration in Kenya conducted in 2016, and develop a specific FLR strategy, including a financing investment plan: <ul style="list-style-type: none"> Develop a road map for the FLR strategy Develop the FLR strategy, including a financing plan Support the LRTWG functioning 	KFS and KEFRI Expertise, LRTWG, consultancy																					
Output 1.2: Domestication of	Activity 1.2.1: Assessment of the existence and adoption level of specific forest/FLR	PMU, consultancy																					

Output	Activity	Responsible	Year 1				Year 2				Year 3				Year 4				Year 5			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
relevant international and national NRM policies is facilitated at the county and local levels, especially as it relates to FLR	policies at county level, including traditional land management systems																					
	Activity 1.2.2: Review the level of compliance of local and customary by-laws to the county and national policy framework	PMU, consultancy																				
	Activity 1.2.3: Make recommendations towards the amendment of existing laws at the county level to address any policy gap	PMU, consultancy																				
Output 1.3: Policy framework for management and utilization of NTFPS is developed and adopted	Activity 1.3.1: Support the development of the “Natural resources access and benefits sharing” policy	KEFRI and KFS expertise, consultancy																				
	Activity 1.3.2: Support the development of a NTFPS management strategy	KEFRI and KFS expertise, consultancy																				
Component 2: Implementation of Restoration Programs and Complementary Initiatives																						
Outcome 2: 152,661 ha are under improved management (including 8,700 ha directly restored and 55,352 ha indirectly restored)																						
Output 2.1: Ecosystem services are assessed and characterized and land use and land cover changes in selected forests and rangelands are assessed	Activity 2.1.1: Assessments of existing ecosystem services in selected forests	Consultancy, IUCN																				
	Activity 2.1.2: Assessment of the level of land degradation at county/site level	Consultancy, IUCN																				
	Activity 2.1.3: Production and diffusion of maps of local restoration opportunities for each restoration option	Consultancy, IUCN																				
	Activity 2.1.4: Awareness raising activities on SFM and FLR	PMU																				

Output	Activity	Responsible	Year 1				Year 2				Year 3				Year 4				Year 5			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Output 2.2: FLR activities are implemented in the two targeted landscapes and ecosystem management plans and community action plans for selected landscapes are developed and implemented	Activity 2.2.1: Support to the finalization and implementation of the Mount Kulal ecosystem management plan, development of community action plans	NMK, IUCN																				
	Activity 2.2.2: Restoration in MKBR	KEFRI expertise, NMK and IUCN																				
	Activity 2.2.3: Water management improvement within Mount Kulal water catchment - Water infrastructure rehabilitation and fencing water sources	PMU, Private companies																				
	Activity 2.2.4: Setting-up of a local revolving fund for promotion of restoration activities and income generation activities (IGAs)	IUCN																				
	Activity 2.2.5: Support to the development and implementation of Mukogodo II MAMUSI CFA participatory forest management plan	KFS and IUCN																				
	Activity 2.2.6: Support the development conservancies and group ranches management plans	NRT and IUCN																				
	Activity 2.2.7: Establishment of 6 tree nurseries for indigenous species, tree planting campaigns in the Mukogodo forest	NRT and IUCN																				
	Activity 2.2.8: Restoration in Lekurruki, II Ngwesi, Oldonyiro and Leparua conservancies, and Kurikuri and Makurian group ranches	KEFRI, NRT and IUCN																				
	Activity 2.2.9: Water management improvement	PMU, Private companies																				

Output	Activity	Responsible	Year 1				Year 2				Year 3				Year 4				Year 5				
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Output 2.3: Knowledge base on NTFPS in the two targeted landscapes and their commercial potential is generated	Activity 2.3.1: Mapping, classification and characterization in the 2 targeted landscapes of NTFPS potentialities	KEFRI expertise																					
	Activity 2.3.2: Assessment of NTFPS commercialization potential	KEFRI expertise																					
	Activity 2.3.3: Assessment of NTFPS value chain	KEFRI expertise																					
Output 2.4: Bio-enterprises products and services are promoted and commercialized	Activity 2.4.1: Identification of viable bio-enterprises and training in post-harvest mechanisms, processing, stock, marketing	KEFRI expertise and consultants																					
	Activity 2.4.2: Bio-enterprises equipment	KEFRI																					
	Activity 2.4.3: Training of NTFPS producer groups in sustainable management and utilization of natural resources	KEFRI expertise and consultants																					
	Activity 2.4.4: Entrepreneurship training and existing Forest and Farm Facilities visit exchanges	KEFRI expertise and consultants																					
	Activity 2.4.5: Development of marketing and commercialization strategies for key identified products	KEFRI expertise, consultancy																					
	Activity 2.4.6: Charcoal value chain assessed and sustained	KEFRI and KFS expertise, consultancy																					
	Activity 2.4.7: Exchange visits to successful bio-enterprises	KEFRI expertise and consultants																					
	Component 3: Institutions, Finance, and Upscaling																						

Output	Activity	Responsible	Year 1				Year 2				Year 3				Year 4				Year 5			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Outcome 3: Strengthened institutional capacities and financing arrangements are in place and facilitate large scale restoration and maintenance of critical landscapes																						
Output 3.1: Counties capacities in implementing FLR relevant policies are strengthened	Activity 3.1.1: Build individual capacity on planning, implementation and monitoring of FLR activities	PMU, consultancy																				
Output 3.2: Community land management committees are set-up and working in targeted project sites	Activity 3.2.1: Institutional Support to the environment elders committee (WWM)	NMK and IUCN																				
	Activity 3.2.2: Support the establishment of the WRUA to facilitate access to the Water Sector Trust Fund (WSTF) and other funds	IUCN																				
	Activity 3.2.3: Institutional Support to Mukugodo CFA and conservancies Board and group ranches committees	KFS, NRT and IUCN																				
	Activity 3.2.4: Support the WRUAs in accessing the WSTF and other funds	IUCN																				
Output 3.3: Restoration initiatives are coordinated at the national level	Activity 3.3.1: Establish a permanent national restoration coordination mechanism: coordinate all the restoration initiatives in Kenya and promote restoration	KEFRI and KFS																				
Output 3.4: Access to climate and restoration finance is improved	Activity 3.4.1: Support the operationalization of the Forest Conservation and Management Trust Fund (FCMTF) and facilitate the access to this fund by local beneficiaries	KFS, trainers, consultancy																				
	Activity 3.4.2: Capacity building for accessing GCF / LDN fund / other international funds	PMU																				
	Activity 3.4.3: Linkages between bio-enterprises (including FFF supported private operators) and potential investors	PMU, Work with RAFAKA																				

Output	Activity	Responsible	Year 1				Year 2				Year 3				Year 4				Year 5			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	Activity 3.4.4: Facilitation of access to credit / finance instrument for bio-enterprises / “bankable proposal” workshop	KEFRI, KFS																				
Component 4: Knowledge, Partnerships, Monitoring and Assessment																						
Outcome 4: Improved FLR monitoring, reporting and knowledge dissemination at national level and Project implementation based on result-based management																						
Output 4.1: A national FLR Knowledge Management system is developed and Implemented	Activity 4.1.1: Develop a FLR Knowledge Platform: The FLR Portal	PMU																				
	Activity 4.1.2: Prepare and disseminate knowledge products about best practices and lessons learned in FLR, SLM and community forest management	PMU																				
Output 4.2: Knowledge shared and received within Kenya and outside	Activity 4.2.1: Sharing knowledge products with stakeholders from other countries	PMU																				
	Activity 4.2.2: Sharing with project stakeholders of knowledge and information from other countries	PMU																				
	Activity 4.2.3.1: Participate in TRI Yearly global knowledge network events	PMU																				
Output 4.3: Project monitoring system providing systematic information on progress in meeting project outcomes and output targets implemented	Activity 4.3.1: Implement a results-based project monitoring system, including baseline research, data analysis and reporting – as well as monitoring of FPIC and community consultation processes by implementing FPIC step 5 (Conduct participatory monitoring and evaluation of the agreement)	PMU																				
	Activity 4.3.2: Conduct a mid-term review	Evaluators																				
	Activity 4.3.3: Conduct a final evaluation and implement FPIC step 6 (Document lessons learned and disclose information about project achievements)	Evaluators																				

ANNEX 3: BUDGET



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ANNEX 4: RISK MATRIX

	Risks	Impact	Probability of occurrence	Degree of Incidence	Mitigation Actions	Responsible party
1	Drought may take place before the project has enabled communities to start diversifying their livelihoods. It may be so severe that it threatens crop, livestock survival, and forests thus curtailing the basis for development of value chains appropriate for food security.	Moderately high: It may undercut efforts made by the project to develop alternative livelihoods as people prioritize immediate survival over “riskier” entrepreneurship	Medium	Amber	The project will monitor early warnings for drought and adapt their activities so as to ensure the building blocks of the project are consolidated and may resist the occurrence of a drought.	PMU
2	Political instability may hinder or interrupt support from the public sector for FLR	High: Several activities require strong political support.	Moderately high	Amber	The project will reach out to decision makers to raise awareness and interest for FLR. This will be done at all levels, to maximize the capacity of the project to reach its objectives.	PSC, PMU
3	Political-institutional risk: Divergent priorities of projects partners and stakeholders with regards to FLR and alternative livelihoods	Moderately high	Low	Green	Project partners will undertake several consultations to reach consensus on key issues during project implementation. Main project partners will be meeting at least once a year through the project steering committee.	PSC
4	Social risks: Reluctance to participate in the project activities by communities	Moderately high	Low	Green	Interest for activities has already been assessed, and the project will be implemented in a highly participatory manner. Partners are closely involved with communities and can relay any concerns early on so as to prevent reluctance from communities.	PMU

5	Project management risks such as delays, overspending, lack of coordination	Moderately high	Medium	Amber	The PMU will be composed of qualified personnel. Oversight by implementing partners, presence in targeted landscapes and well-established processes and monitoring activities will favor an early identification of issues that may hinder project implementation.	PSC, PMU
6	Ecological risks posed by the implementation of environment restoration activities and water management activities	Moderately high	Medium	Amber	The project is supported by KEFRI, KFS and IUCN, which possess a strong knowledge base on environmental management in the region so as to ensure that activities implemented do no harm.	PSC

ANNEX 5: E&S CLASSIFICATION CERTIFICATION FORM AND RISK MITIGATION PLAN

Project Risk Certification

Entity Number: 641797
 Project Title: Support to Sustainable Bioenterprise Development in Healthy Rangelands in the Arid&Semi-Arid Land
 Recipient Country(ies): Kenya, Republic of
 Estimated total budget in USD: 4,157,340 \$

Risk Certification

Certified by: Besacier, Christophe (FOADD)

Date: 14-Jul-2017

The table below summarizes the environmental and social risks identified in relation to the proposed action.

The proposed action is classified as: **Moderate**

Safeguard Triggered	Risk Identified	Answer	Risk Classification	Reference Guidance	Additional Description (if any)
9	9.2 - Are there indigenous peoples living in the project area where activities will take place?	Yes	Moderate	A Free Prior and Informed Consent process is required. If the project is for indigenous peoples, an Indigenous Peoples' Plan is required in addition to the Free Prior and Informed Consent process. Please contact the ESM/OPCA unit for further guidance. In cases where the project is for both, indigenous and non-indigenous peoples, an Indigenous Peoples' Plan will be required only if a substantial number of beneficiaries are Indigenous Peoples. project activities should outline actions to address and mitigate any potential impact. Please contact ESM/OPCA unit for further guidance.	As described in Section 1 of the Project document, the project areas are inhabited by indigenous people that were thoroughly consulted during the PPG (project preparation) phase. The project complies with the Free Prior and Informed Consent (FPIC) principles. The consent of indigenous people to project activities will be free and prior in the sense that it will be given voluntarily and without coercion, intimidation or manipulation. Indigenous people have been consulted during the PPG and gave their informal consent to the project development and intervention, and it will continue to be sought for all activities

throughout the project implementation through participatory and concertation mechanisms. For instance, the livelihoods of indigenous people and their dependence on natural resources will be carefully assessed under the second component of the project, and they will be closely involved in the participatory mapping of NTFPs. The ecosystem community action plans will also be developed in close collaboration with local indigenous communities and will aim to directly empower them over the management of natural resources in targeted areas. They will be at the heart of the decision-making processes, of the restoration activities and of the forest and landscape management processes.

The consent of indigenous people will be informed as the project will ensure – through its capacity development activities on FLR and participatory mechanism for instance – that relevant information is given to indigenous groups in an accessible manner, involving all vulnerable groups (youth, women, the elderly, and persons with disabilities), and allowing sufficient time for them to discuss in their local language and freely express their consent.

The project will aim to respond to the needs and priorities expressed by the indigenous communities involved. The knowledge, cultural systems and institutions of indigenous people will form the basis on which project activities will be implemented. These will

					<p>be thoroughly assessed during several assessments to be conducted from the onset of the project such as: an assessment on compliance with local legislation, an assessment of ecosystem services, land use and land degradation in selected forests (including participatory mapping), an assessment of NTPFS potentialities, and a capacity needs assessment on implementing FLR relevant policies.</p> <p>The project will ensure that indigenous people are carefully considered in the implementation and development of national policies or strategies in order ensure that their rights are preserved and that their voice is systematically taken into account in the long term in the FLR decision making processes.</p>
9	9.4 - Would this project be located in an area where cultural resources exist?	Yes	Moderate	<p>To preserve cultural resources (when existing in the project area) and to avoid their destruction or damage, due diligence must be undertaken to:</p> <p>a) verify that provisions of the normative framework, which is usually under the oversight of a national institution responsible for protection of historical and archaeological sites/intangible cultural heritage; and</p> <p>b) through collaboration and communication with indigenous peoples' own governance institutions/leadership, verifying the probability of the existence of sites/intangible cultural heritage that are significant to indigenous peoples.</p> <p>In cases where there is a high chance of encountering physical cultural resources, the bidding documents and contract for any</p>	<p>The purpose of this project is to protect the forests in which cultural activities happens. This project will be very sensitive to the cultural purpose of the forest and all the decision concerning the management of the forest will be made by the indigenous communities.</p>

civil works must refer to the need to include recovery of "chance findings" in line with national procedures and rules.

RISK MITIGATION PLAN

Environmental and Social Risk Management Plan

Risk identified	Risk Classification	Risk Description in the project	Mitigation Action (s)	Indicators	Progress on mitigation action
Presence of indigenous peoples in the project area	Moderate	The project will be implemented in an area with indigenous communities.	Process of Free, Prior and informed Consent (FPIC)	FPIC report	<i>To be completed during progress report</i>

ANNEX 6: DRAFT TERMS OF REFERENCE

- National Project Coordinator
- Operations and Administration Officer
- National Technical Assistant
- Chief Technical Advisor

National Project Coordinator (NPC)

The NPC will be contracted by the FAO Kenya for a full-time position for a duration of five years to lead the Project Management Unit (PMU) and the implementation of the Project according to best international technical and management practices. The NPC will work closely with FAO offices and KEFRI. The NPC reports to the BH on operational issues and to the CTA on technical issues.

Duties and responsibilities

The NPC will be in charge of daily project management and technical supervision including:

- Coordinating and closely monitoring the implementation of project activities;
- Ensure that latest and best international practices and approaches are reflected in the design and planning of project activities, including the implementation of FPIC;
- Day-to-day management of PMU and of the project;
- Coordination with related initiatives;
- Ensuring a high level of collaboration among participating institutions and organizations at the national and local levels;
- Tracking the project's progress and ensuring timely delivery of inputs and outputs;
- Supporting the CTA in implementing and managing the project's monitoring and communications plans;

- Organizing annual project workshops and meetings to monitor progress and preparing the AWP/B;
- Submitting the PPR with the AWP/B to the Project Steering Committee (PSC) and FAO;
- Acting as Secretary of the PSC;
- In cooperation with the CTA preparing the PIR, and supporting the organization of the mid-term evaluation/review and final evaluation;
- Under FAO rules and procedures and in conformity with this project document and the AWP/B, identify expenses and disbursements that should be requested to FAO for the timely execution of the project; and
- Monitor, provide technical support and assess the reports and outputs of the project's national consultants (financed by GEF funds).

Qualifications

- Higher education degree related to natural resources management, forestry or landscape restoration;
- At least 10 years of experience working in forest and landscape restoration, preferably in arid or semi-arid lands;
- At least 5 years of experience working in Kenya's ASALs;
- At least 5 years of experience working with communities, group ranches and conservancies of Kenya;
- Solid experience in project management, including results-based management and monitoring and evaluation;
- Previous experience working with international partners on related issues;
- Strong report-writing skills in English.

Operations and Administration Officer

The Operations and Administrative Officer will be contracted by the FAO Kenya for a full-time position for a duration of five years within the Project Management Unit (PMU).

Duties and Responsibilities

The financial manager, under the direct supervision of the FAO BH and in close consultation with the NPC, the LTO and the lead executing partners, will ensure a smooth and timely implementation of project activities in support of the results-based work plan, through operational and administrative procedures according to FAO rules and standards.

In addition, the Operations and Administrative Officer will be responsible to:

- Coordinate the project operational arrangements through contractual agreements with key project partners;
- Arrange the operations needed for signing and executing Letters of Agreement (LoA) with relevant project partners;
- Maintain inter-departmental linkages with FAO units for donor liaison, Finance, Human Resources, and other units as required;
- Manage the project budget day-to-day, including the monitoring of cash availability, budget preparation and budget revisions to be reviewed by the NPC;

- Ensure the accurate recording of all data relevant for operational, financial and results-based monitoring;
- Ensure that relevant reports on expenditures, forecasts, progress against work plans, project closure, are prepared and submitted in accordance with FAO and GEF defined procedures and reporting formats, schedules and communications channels, as required;
- Execute accurate and timely actions on all operational requirements for personnel-related matters, equipment and material procurement, and field disbursements;
- Participate and represent the project in collaborative meetings with project partners and the Project Steering Committee, as required;
- Undertake missions to monitor the outputs-based budget, and to resolve outstanding operational problems, as appropriate; Be responsible for results achieved within her/his area of work and ensure issues affecting project delivery and success are brought to the attention of higher level authorities through the BH in a timely manner;
- In consultation with FAO Evaluation Office, the LTO, and FAO-GEF Coordination Unit, support the organization of the mid-term and final evaluations, and provide inputs regarding project budgetary matters;
- Provide inputs and maintain the FPMIS systems up-to-date; and
- Undertake any other duties as required.

Qualifications

- University Degree in Economics, Business Administration, or a related field;
- Three years of experience in project operation and management related to natural resources management, including field experience in developing countries;
- Proven capacity to work and establish working relationships with governmental and non-governmental representatives;
- Knowledge of FAO's project management systems is an asset;
- Fluent in English.

National Technical Assistant

The National Technical Assistant (NTA) will be part of the Project Management Unit (PMU) for the Project on a full-time basis for the five years of the project. It will work under the supervision of the Chief Technical Advisor (CTA) and the National Project Coordinator (NPC).

Duties and Responsibilities

The NTA will support project technical implementation. Its role will be to supervise all technical activities, and especially the ones related to bioenterprises development and NTFPS development.

More specifically, the NTA will:

- Coordinate and closely monitor the implementation of project technical activities;
- Coordinate with local participating institutions and organizations as well as with other local initiatives;
- Support the NCP in consolidating FPIC related information in a single report that summarizes all the information related to the FPIC process - including already available information collected during PPG concerning indigenous people – such as the consultations held, mapping of indigenous peoples in intervention areas, the consent obtained etc as well as, the FPIC steps carried out all throughout project implementation. The FPIC report template will be provided to the project team by FAO and needs to be regularly updated all throughout project implementation.
- Provide technical advice to communities on bio-enterprise development and business development;
- Review project plans and outputs to ensure technical best practices are incorporated;
- Coordinate closely with the NPC and the CTA;
- Provide monitoring information for NPC and CTA reporting.

Qualifications

- Higher degree in business administration, management or entrepreneurship;
- At least five years of experience in SME development and entrepreneurship;
- At least three years of experience developing bio-enterprises;
- Solid project management experience;
- Previous experience working with local communities in Kenya;
- Solid understanding of issues and practices;
- Demonstrated commitment to participatory natural resource management techniques, forest and landscape restoration, conservation; and
- English language skills.

Chief Technical Advisor

FAO will employ this international part-time position for an equivalent of 100 days/year, under the supervision of the FAO LTO in Rome, to directly support the NPC and the PCU and ensure best international technical and management practices are integrated into the Project work plan and activities.

Duties and responsibilities:

The CTA will be responsible in coordination with NPC for the operational planning, management and monitoring of all project's activities. He/she will provide technical support and ensure a good implementation of the activities in line with the project result framework, work plan and approved budget. This will include:

Support to the NPC and PCU:

- Ensure that latest and best international practices and approaches are reflected in the design and planning of project activities, including the implementation of FPIC;
- Support the organization and implementation of the inception workshop and compile inception report in close cooperation with the NPC;
- Contribute directly to all technical activities, notably:
 - o Negotiations with partners and development of joint work programs and budgets.
 - o Analyze training materials and technical options for implementation of capacity building program under Component 3.
 - o Identify best practices responding to FLR requirements, to support project partners in the design and implementation of the FLR program under Component 2.
- Prepare annual work plans in collaboration with NPC, PCU and LTU;
- Support real-time monitoring of project progress and the alerting of the BH and the LTO to potential problems that could result in delays in implementation;
- Help identify consultant candidates;
- Provide technical advice as required to project experts, consultants, and contractors and help to organize and supervise consultant inputs;
- Support the organization of regular trainings and learning visits;
- Support design of the project's work with stakeholders in the field and in the pilot areas;
- Propose an approach to managing and sharing knowledge, and to identifying and disseminating lessons learned;
- Provide on-the-job capacity development to all members of the PCU;
- Communicate, advocate and engage in policy dialogue;
- Provide technical advice and assistance to the mid-term and final evaluations of the project; and
- Support the NPC in reporting on project progress, and contribute to the development of semi-annual PPRs and annual PIRs.
- Define methodologies for measurement and monitoring of indicators and information sources;
- Make sure baseline is established for all indicators;
- Define responsibilities and frequency for data collection and monitoring of indicators;
- Allow for adaptive management of project execution;
- Document institutional memory of the project; and
- Facilitate project progress reporting and communication of results.

Qualifications

- o Higher degree related to natural resources, environment management, agriculture or rural development;
- o Experience in establishing project results and progress monitoring systems;
- o Solid experience in project management and in particular results based management;

- At least five years' experience of supporting work in the FLR/agroforestry sectors in Africa;
- Demonstrated previous experience with FLR, sustainable NRM, and biodiversity conservation, possibly in the context of climate change adaptation/mitigation;
- Demonstrated previous experience working on capacity development and training with broad ranges of stakeholders;
- Previous experience working with international partners on related issues;
- English language skills preferential, Portuguese/French language skills an asset; and
- Knowledge of FAO's project management systems is an asset.

ANNEX 7: ECOSYSTEM SERVICES AND ADDITIONAL CONTEXT INFORMATION

Project landscape 1: Mount Kulal

Ecosystem services

- Water: MKBR is considered to be one of the main water towers in Kenya. The forest provides the entire landscape with water and is particularly important during dry season. Water is delivered by springs in the forest and on the shoulders of the mountain, as well as by seasonal and constant springs at the base of the mountain. The mountain forest attracts rain and mist which create short and intensive rains. The core forest itself as well as the Acacia forests on the shoulders of the mountain, aid in retention and absorption of the intensive rains and help protect against soil erosion (Mati 2015). Villagers (Arapal and Gatab) are aware of the importance of the forest for their water provision and a number of springs now have impoundments to collect water for piping by gravity flow to holding tanks that serve local communities. The current water infrastructure is however in bad condition with many pipes leaking and many catchment areas severely degraded. The management of the water sources is carried out through a community-based organization (CBO) and tampering with the water sources invites a fine of 1000 shillings and other disciplinary measures by the local administration (Mati, 2015);
- Poles: The forest products used most often are poles for construction of local houses. Samburu houses in the villages of Mount Kulal take one of two forms. Mud and pole structures built with tree trunks can last decades, especially with regular maintenance of mud walls and metal roofs. More traditional homes use smaller branches that are buried in the ground and bent into a dome to form the main structure of the house. This structure is then thatched with grass and brush and now preferably roofed with plastic. These homes may last only a few years and it is not unusual for a compound to have several constructions of varying ages. Smaller twigs (e.g. of *Lippia* sp. and *Lantana* sp.) for reinforcing the mud walls may be obtained from bushland near the village rather than from the forest (Watkins & Imbumi, 2007);
- Fuelwood: Local administrative officials attempt to enforce conservation laws established during more active management of the reserve, which limit cutting of living trees for fuelwood in the forests on the mountain. However, cutting of bush or trees in the forested areas outside the core zone and the lowlands of the reserve seems to be unregulated. Fuelwood here is vital most of the year because of the cool climate and high humidity. Woodfuel (fuelwood and charcoal) is the main energy source, but charcoal is made on a small scale, mainly for local consumption. According to one resident of Gatab, some households collect as much as 40 to 50 kg of fuelwood daily, although this is probably an extreme upper limit (Watkins & Imbumi, 2007);
- Herbs and medicine: The Mount Kulal forest is a rich source of local and traditional medicines. Some plants are used in soup, mainly by moran (young Samburu warriors), to prevent diseases, while women add certain plants to the milk given to children to make them stronger. Both *Clerodendrum myricoides* and *Boerhavia coccinea* are planted in homesteads for their medicinal value (Watkins & Imbumi, 2007). Furthermore, some herbs such as *Myrsine africana*, locally known as Angu, and *Zanthoxylum usambarense*, locally known as Loisuk, are harvested from the forest and sold in Marsabit Town.
- Minerals: On a small scale, minerals are quite important to Samburu culture. Local people collect red ochre from lorian lolkaria or “a place of red ochre” in the forest. The ochre is mixed with sheep-tail fat and smeared on the hair to make it beautiful and grow long. It is mainly used by moran, although young women may also use small amounts. Harvesters sell the ochre at 10 shillings (US\$0.15) per tablespoon in local villages (Watkins & Imbumi, 2007);
- Fertile soils: The rich volcanic soils that are increasingly used for agriculture to complement traditional herding practices are not the only important geological feature of Mount Kulal (Watkins & Imbumi 2007). These soils have contributed to the fact that the Samburu residing within and in close proximity

to the forest have to a larger extent adapted agro-pastoralism as their livelihood strategy, in unlike people residing in less fertile areas;

- Shelter during conflict: Mount Kulal is situated at the border between the Samburu and the Turkana community and cattle rustling and conflicts over pastures are common issues. In times of insecurity the forest cover is used as protection and refuge against invaders.
- Fruit/honey: both honey and fruit are considered as important ecosystem service by the people of Mount Kulal. Honey is produced both for home consumption and for sale through the local women group "Mount Kulal women honey group".
- Culture: the forest is highly valued among local residents both for its beauty and its clean air and environment (Cuni Sanchez, 2015). The forest is home to numerous caves and groves used by the morans in their training to become warriors. The forest is also considered as sacred among the Samburu communities residing within or in close proximity to the forest and a number of ceremonies and sacred sites can be found within: a sacred spring used by women in times of drought (they fetch seaweed place it on the head and pray for rains); the same spring is used for fetching water for marriage celebrations; a field where elders slaughter one goat and pray for rain in times of drought – where grazing is forbidden; sites for circumcision; and Sapitei, a sacred fig tree. These sites are protected by the community.
- Dry season grazing: During prolonged droughts people bring their animals into the forests to forage. Branches, usually of olive trees, are cut to feed the animals. During extreme droughts, animals also browse most other plants in the forest. The extent and effect of grazing in the forest is not yet known. Signs of cut branches and occasionally small trees are visible in the forest. Selective use of preferred species may warrant study to determine the effect of decreased biodiversity of forest species. In times of extreme drought when forest resources become more important to livestock, elders allow unsupervised grazing in the forest (Watkins & Imbumi, 2007).

Social services and physical infrastructure

- Water: The major sources of water found in the area are sub surface water resources such as springs, dams and shallow wells and waterholes dug in riverbeds for domestic and livestock development. A permanent source of surface water is at the top of Mount Kulal. The distance of the villages from water source is not as far as expected considering they are semi-arid areas, most people walk less than 1-2 km or an hour or less during the dry period. A number of springs now have impoundments to collect water for piping by gravity flow to holding tanks that serve local communities. Previous construction, expansion and maintenance of this system have been provided through the African Inland Church mission in Gatab. The water committee, a part of the local village council, is responsible for the management of the water system and any possible extensions of it in the villages. Coping mechanisms to water associated problems include minimizing the uses of water, boiling water to reduce salt, storing water in big pots and construction of rain water harvesting tanks. Others use donkeys to fetch water from long distances, relocate to areas close to water sources, buy waters or dig more wells.
- Health: Poor health conditions are prevalent in the area, aggravated by the poor nutritional status that prevails. There is one private mission and public health centre in Gatab with two community health workers and five traditional birth attendants who address the health and sanitation issues. However, in Arapal there is no dispensary around and the community depends more on medicinal plants and herbs from the forest. Certain plants are used in soup to prevent diseases while others are added to the milk given to children to fortify them.
- Sanitation: The latrine coverage is estimated to be low and a significant number of the residents defecate in the bushes, while in some homesteads there are shared pit latrines. Similarly, most community members do not boil drinking water. Most common diseases reported are diarrhoea,

coughing, eye infection, worm infestations, pneumonia and skin lashes. Nutrition related diseases include kwashiorkor and marasmus. HIV/Aids was least reported, may be due to stigma or low levels of awareness about the disease.

- **Energy:** As mentioned previously, the main source of energy for communities in the project sites is woodfuel. There is no electricity supply in the area. There is also low utilization of other sources of energy like solar and wind due to low incomes of the people. However, in some instances, a few people have electricity generated through solar, wind and diesel powered generators, particularly, in schools, shops and tourist facilities. The main source of energy for lighting is kerosene, torch batteries and firewood, while the main source of energy for cooking is firewood.
- **Education:** The majority of elderly people lack basic education and there are no tertiary education institutions in the project area. There are two primary schools and one Girl’s secondary school in Gatab, and one primary school in Arapal. The nearest Boy’s secondary school is in Loiyangalani. The main challenges facing the education sub-sector include low staffing, inadequate infrastructure, poverty and the nomadic way of life which results in disruption of education activities. Some interventions to reduce the turnover include awarding bursaries to needy children, school feeding programs, and building of classrooms.
- **Roads:** The poor state of roads coupled with harsh terrain makes transport expensive as the areas are not served by reliable means of transport and the locals are forced to trek long distances. Camels and donkeys are used for transporting goods. There are no tarmac roads in the area and during the rainy season the roads are impassable. The ragged terrain is served by rough dry weather loose surface road that is very stony. The main means of public transport used are lorries which are not reliably available. Community members normally beg for rides from catholic mission vehicles, government vehicles or relief vehicles.
- **Telecommunications:** At Arapal there is very limited telephone network, but in Gatab, the Safaricom cell phone network is available.

Project landscape 2: Mukogodo Forest

Table 16. Overview of Mukogodo project site main characteristics

County	Landscapes and specific sites	Area (Ha)	Households	Livelihoods
Laikipia (Laikipia North)	Mukogodo Forest	9,470	6933	Traditional pastoralism, tourism and agro-pastoralism (incl. beekeeping)
		5,390		
		3,340	586	
	Il Ngwesi conservancy	15,872	323	
	Makurian group ranch		405	
	Kuri kuri group ranch		454	
	Lekurruki conservancy (Sieku)			
Isiolo	Oldonyiro conservancy	52,500	n/a	
	Leparua conservancy	34,200	n/a	

Livelihoods and ecosystem services

The Mukogodo Landscape has great cultural significance for local communities related to the tangible and intangible values associated with cultural sites, and traditional foods and medicines. For time immemorial the local community have used it for traditional rites, grazing, and other domestic requirements. There are also considerable environmental and economic values that support the livelihood of the communities within the landscape and beyond (Okello, 2005).

Mukogodo has a great potential for tourism, which is yet to be fully exploited. These include wildlife, scenic features, social cultures, historical sites and sports (camel rides, donkey rides, horse rides, etc.). However, it has limited developed tourist facilities (Okello, 2005).

The forest is of great value to the adjacent local communities, who rely on forest products, which include building materials, firewood, livestock pastures, medicinal herbs, traditional foods, water, honey and other environmental services (Okello, 2005).

Historically, in this arid and semi-arid region of Kenya, options for alternative income have been limited. Livelihoods are predominantly livestock based, government services are sparse, and poverty rates are some of the highest. The communities are traditional in structure and governance systems. These pastoralists rely on their livestock for their social, economic and cultural life. As land is increasingly degraded, people rely more and more on small stock (sheep and goats, rather than cattle) for their livelihoods, especially on the group ranches in the western part of the Mukogodo landscape. Changing climatic conditions are also causing them to make a transition to settled living and cultivation of maize. Beekeeping is widespread around the Mukogodo forest.

In Mukogodo and its surrounding ranches, pastoralism comprises over 80% of the households' occupation, while crop farming is intermittently practiced in all the group ranches. The other main occupation was employment (12.9%). Community members have rights of ownership of the four group ranches and the resources therein while KFS owns the forest reserve on behalf of the state. The community enjoys user rights and privileges on a wide range of forest products, e.g. grazing, settlement, firewood, water, poles, herbs, honey, and natural dyes (MENR, 2007). The main source of funding for the ILMAMUSI CFA includes the following:

- Membership fee (per group ranch): Ksh. 10,000 per group ranch per year;
- Contribution from income generating projects within the landscape as follows;
 - Lodges: Ksh. 30,000 per year;
 - Group ranch sand harvesting projects: Ksh. 20, 000 per year;
 - Others (bee keeping projects, fruit projects, herbal medicines, beadwork, camp sites etc.): Ksh. 5,000 per year;
- Private ranches on a voluntary contributory basis
- Donor and institutions support
- Partnership investments where the CFA enter into implementation partnership with a third party entities at agreed fees and royalties.

Social services and physical infrastructure

- Health: There are four sub-county hospitals in Laikipia North, including one in Doldol. Around Mukogodo, health facilities are inadequate, as community members have to travel as far away as Ethi, Timau, Chumvi and Nanyuki. In addition to the Doldol hospital, there is one dispensary run by the Doldol catholic mission, one Dispensary in Arjijo, one community herbal pharmacy in Anadungoru and one mobile clinic operated by the Borana ranch.
- Sanitation: in Laikipia, 72.8% of households use ordinary pit latrines
- Energy: In Laikipia, 66% of households rely on firewood as their main source of energy and 26% on charcoal. Laikipia north has the highest level of firewood use in Laikipia, with 87%.
- Education: Laikipia North constituency constitute the highest share of residents with no formal education of the county, at 48%. In Mukogodo, there is a boys' secondary school, a girls' secondary school and 6 primary schools with 2 having boarding facilities for both boys and girls which are all government owned. In addition, there are 14 nursery schools. Five of the schools are located within the forest boundaries and depend more on fuelwood from the forest as a source of energy. The educational levels have increased over this current generation since the establishment of schools within the Mukogodo area.

Annex 8: Co-financing letters



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GEF6_FAOKE
co-finance letter.pdf

Annex 9: LINKAGES BETWEEN THIS TRI CHILD PROJECT AND THE TRI PROGRAM

The project is one of 12 child projects of The Restoration Initiative (TRI), a GEF-supported program to contribute to the restoration and maintenance of critical landscapes to provide global environmental benefits and enhanced resilient economic development and livelihoods, in support of the Bonn Challenge. TRI is designed and led by three GEF Agencies – IUCN (lead agency), FAO and UN Environment – in partnership with TRI countries.”

The TRI program is comprised of 11 national child projects in 10 Asian and African countries, and is supported by a Global Learning, Finance, and Partnerships project (Global Child). The Global Child project will be responsible for facilitating overall coordination, monitoring, and adaptive management of the TRI Program, while at the same time providing key support along each of the four program components.”

The design of the “Restoration of arid and semi-arid lands (ASAL) of Kenya through bio-enterprise development and other incentives under The Restoration Initiative” includes mechanisms to ensure cross-fertilization between the Project, other TRI child projects, and the overall TRI program. Mechanisms include:

- Participation in annual TRI knowledge sharing workshops;
- Exchange and study visits with other TRI countries;
- Project anticipates receiving and integrating support from the Global Child project. This includes benefiting from provision of:
 - o international experts and trainings on FLR- and TRI-relevant topics;
 - o establishment and participation in TRI Community of Practice groups (via online and other groups) facilitated by the Global Child project;
 - o support for identification and integration of policies that are supportive of FLR, including through partnership with the Global Child project in developing and utilizing relevant and high-value case studies and policy briefs;
 - o support for mobilization of FLR finance, including help in developing bankable FLR investment proposals;
 - o enrollment of Project stakeholders in a TRI course on FLR Finance to be developed by the Global Child project in partnership with Yale University, and made available beginning in 2018;
- The Project will develop knowledge products on in-country FLR practices, experiences, and achievements, for sharing with other TRI child projects, including through annual TRI knowledge sharing workshops;
- Project team member(s) will take part in regular calls with the TRI Program Coordinator, to allow all NCPs and Global Child team members to hear first-hand from all projects on relevant updates and emerging opportunities. Those opportunities include linkages between the Global Child and NCPs. They may also include linkages between Child projects themselves and/or linkages between Child projects and relevant external initiatives;
- The Project will be responsive to any guidance received from the TRI Program Advisory Committee and the TRI Global Coordination Unit of the Global Child (see TRI Program institutional structure below);
- The Project will make use of Global Child provided standardized means (including standardized templates, and processes) for capturing and documenting lessons learned;
- The Project will make use of the Harmonized TRI Tracking Tool for reporting to the GEF, to facilitate comparability and utility of aggregated M&E data;”

TRI Program Institutional Structure and Linkages.

The TRI Program will be strengthened by the establishment and operation of a TRI Program Advisory Committee (PAC), supported by the TRI Global Child. The PAC will be comprised of representatives from the three TRI Partner Agencies, the GEF, as well as representatives from some or all of the TRI countries (TBD), and relevant external experts. The PAC will provide oversight and recommendations over the course of TRI implementation, to capitalize on emerging opportunities, facilitate linkages to existing and relevant restoration initiatives, and provide recommendations to address any implementation bottlenecks as they arise.

Recommendations provided by the PAC are of an advisory nature only – TRI child projects are not bound to follow the advice of the PAC. However, experience has demonstrated the value that an advisory body, with substantial expertise and experience and a unique vantage point and perspective, can bring to a program. It is therefore anticipated that TRI Child projects will incorporate recommendations of the PAC into their work plans and operations.

Specific functions of the PAC shall include:

- Provide overall strategic policy and management direction to the Program and Child projects;
- Review progress of previously agreed Program work plans;
- Review key milestones and points for review;
- Discuss process forward, and any proposed changes to plans and main activities;
- Facilitate linkages between the TRI Program and other relevant FLR initiatives where appropriate;
- Provide technical and substantive input to the TRI Annual Knowledge Sharing workshop where appropriate;”

The TRI Program will also be strengthened by the establishment and operation of a TRI Global Coordination Unit (GCU), housed within the Global Child project. Specific functions of the GCU shall include:

- Lead the focus on optimizing integration and capture of synergies among child projects;
- Develop and implement a TRI Monitoring and Evaluation (M&E) System for the TRI Program with effective linkages to all 12 child projects, based on the TRI Theory of Change, the results matrices in the project documents of all 12 TRI child projects, the TRI M&E Framework, as well as additional monitoring elements that may be required to achieve value for money assessments and other desired assessments, to ensure the systematic monitoring of the implementation of the TRI Program;
- Develop and implement a TRI Global Communications and Outreach Strategy supporting achievement of TRI communications objectives;
- Develop and implement a TRI Partnership Strategy supporting effective engagement and partnership with external programs, projects, institutions, and potential donors/investors, that help foster achievement of TRI objectives, both at the Program- and child project-levels, and participation in appropriate external fora on behalf of the TRI Program;
- Organize and participate in monthly working group meetings with TRI child project managers, to hear first-hand from all projects on relevant updates and emerging opportunities.;
- Organize and participate in biannual meetings of the Program Advisory Committee;
- Provision of secretarial services to the Program Advisory Committee;
- Preparation of biannual Program Progress Reports for the Program Advisory Committee;
- Coordinate adequate response to all specific issues and concerns raised by the Program Advisory Committee;”

“Figure 1 shows the institutional structure and reporting linkages between TRI program constituents. Additional reporting by Child projects to the GCU is not anticipated but opportunities will be offered by the GCU to the

countries to participate in studies on TRI Program efficacy, such as Value for Money studies during the final years of TRI implementation.”

Figure 1. TRI Program institutional structure.

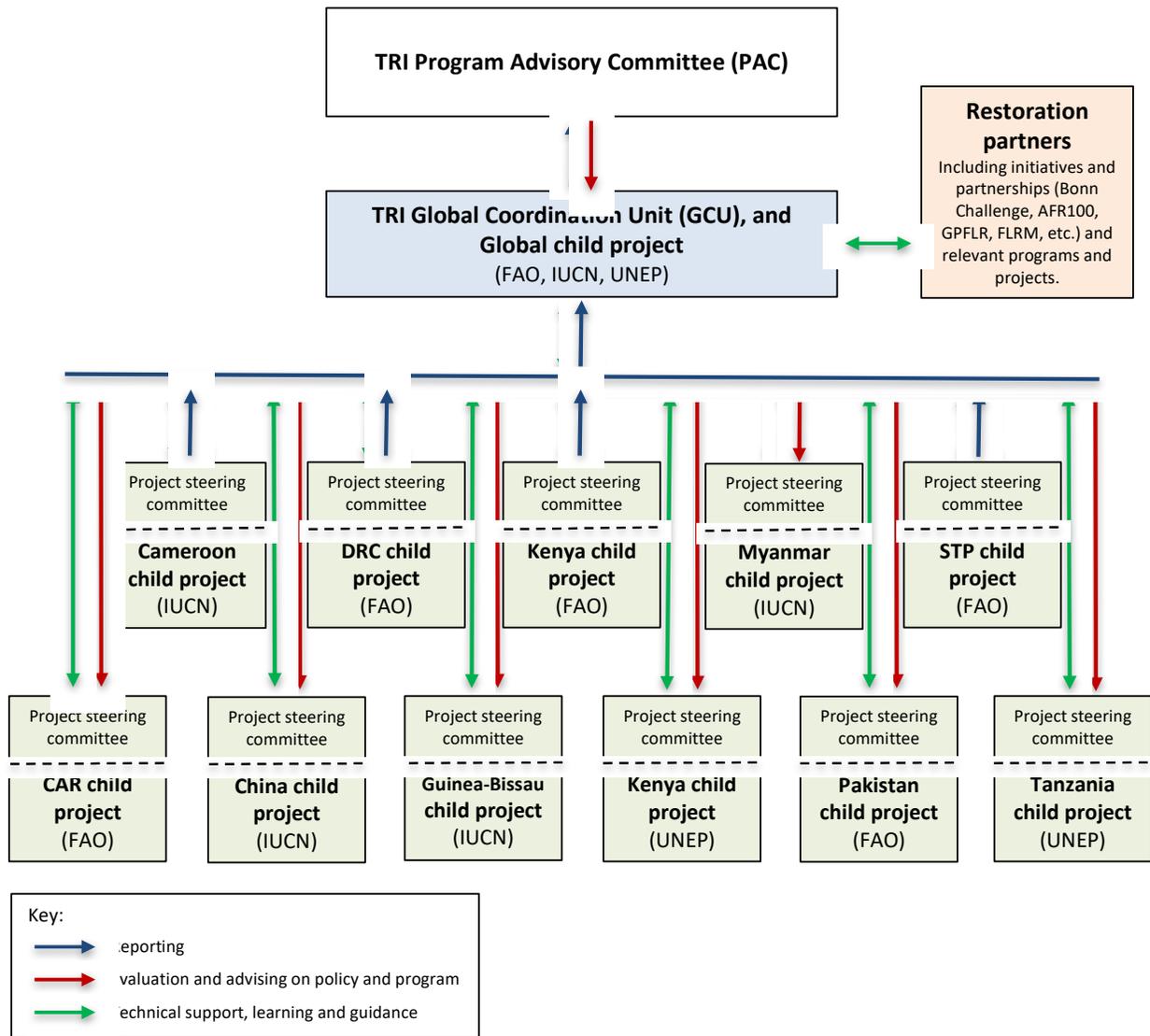


Table Detailing Alignment of Child Project with TRI Program

Table 1. Child Project Alignment with TRI Program

Criteria	Child project design features aligned with criteria
Project interventions are designed/informed by forest landscape restoration best practices and are in line with support for the Bonn Challenge	Yes, all the project interventions are aligned the FLRM best practices to support the Bonn Challenge
Project strategy employs TRI strategic approach, and includes work under each of the four TRI Programmatic components	Yes, this projects strictly follows the PFD frameworks under each of the 4 components
Project anticipates making use of supports from TRI Global Learning, Finance, and Partnership project (the Global Child project)	Yes, as described in the ProDoc, the projects is planning to make use of the technical assistance offered by the GCP and will participate to the different forms of knowledge gathering and dissemination offered.
Project anticipates making contributions to the capture and dissemination of knowledge, for the benefit of all TRI child projects	Yes, as described in the ProDoc, the project will actively capture knowledge to disseminate it in country and more broadly.
Project design recognizes institutional linkages with the Global Child project, including with TRI Program Advisory Committee, for adaptive management.	Yes
Project includes a planned activity and dedicated funding for participation in Annual TRI Knowledge-Sharing workshops	Yes
Project funding and anticipated global environmental benefits are in-line with estimates made at the time of PFD submission/approval	Yes
Other (including any additional support for partnership and knowledge sharing activities with TRI partners)	This project has been developed as being part of a program both benefitting and contributing to it. Several of its features have been developed having this idea in mind.

Annex 10: PROJECT MITIGATION BENEFITS EXACT - METHODOLOGICAL BASIS OF CARBON BENEFITS QUANTIFICATION

The EX-ACT results file are available separately

The project will implement the following forest and grassland management interventions in two project target areas that are considered to generate carbon sequestration benefits:

Site	Indicative number of hectares	Planned activities	EXACT
Mont Kulal (MKBR)	400	Grass reseeding campaigns in lower MKBR within fenced enclosures (400 ha): fencing of enclosures using comparisons between wire, live fencing and electric, and also traditional community fencing; protection of grazing from livestock and wildlife; establishment of dry season grazing reserves; recovery of perennial grass root systems.	4.1.2 Grassland system going from severely degraded to improved without inputs
	200	Development of agroforestry around the protected forest using fodder trees to prevent intrusion in the forest and other trees to diversify income generation and reduce soil degradation.	3.2.2 crop production
	50	50 ha will be enriched per year from Y2 to Y5 in critically degraded areas within the MKBR core zone (<i>hypothesis for EXACT, 25% is replanted=50 ha over 4 years, the remaining 150 ha are part of improved management in the line below</i>)	2.2 Reforestation (50ha) from degraded land to tropical dry forest
	1,050	Restoration around the protected forest and promotion of alternatives to livestock grazing within the forest to allow for natural forest regeneration in the core zone of forest (1,100ha) – (<i>For EXACT we took out the 50 ha replantation(line above) to avoid double counting</i>)	5.1 Tropical dry forest going from Moderate degradation to Low (if no project it would be Large)
Mukogodo	5,600	Rangeland reseeding campaigns will be organized under the supervision of NRT and IUCN using seeds produced in the fenced areas; an estimated 1 400 ha will be targeted per year from year 2 to 5 (a total of 5 600 ha)	4.1.2 Grassland system going from severely degraded to improved, without inputs
	400	100 ha of the forest will be enriched per year from Y2 to Y5 for a total of 400 ha. (<i>hypothesis for EXACT, 25% is replanted=100 ha + 300 ha improved management</i>)	2.2 Reforestation (100ha) from degraded land to tropical dry forest + 5.1 Tropical dry forest going from Moderate degradation to Low (if no project it would be Large) (300 ha)

	1,000	Restoration around the protected forest and promotion of alternatives to livestock grazing within the forest will allow for natural forest regeneration in the forest. We estimate that the activities will have an impact on 1 000 ha of the Mukogodo Forest	5.1 Tropical dry forest going from Moderate degradation to Low (if no project it would be Large)
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Total 8,700

The carbon benefits from the project are estimated in terms of lifetime direct as well as consequential GHG emissions avoided over the default time horizon of 20 years under the IPCC guideline and the guidance of the GEF Tracking Tools. For this project, the duration of the implementation phase and the capitalization phase are defined as respectively 5 years and 15 years. The carbon benefits are calculated using EX-Ante Carbon Balance Tool (EX-ACT).

Direct lifetime GHG emission avoided

In the GEF Tracking Tool for Climate Change Mitigation projects, direct lifetime GHG emissions avoided are the emissions reductions attributable to the investments made during the project's supervised implementation period, totaled over the respective lifetime of the investments.

The estimated values of direct lifetime GHG emission avoided during 20 years (5 years of implementation phase and 15 years of capitalization phase) are **820,089 tCO₂e** as follows:

Components of the project	Gross fluxes			Share per GHG of the Balance					Result per year		
	Without	With	Balance	All GHG in tCO ₂ eq			N ₂ O	CH ₄	Without	With	Balance
	All GHG in tCO ₂ eq			CO ₂	Soil	Other					
	Positive = source / negative = sink			Biomass	Soil	Other					
Land use changes											
Deforestation	0	0	0	0	0	0	0	0	0	0	0
Afforestation	0	-34,516	-34,516	-18,394	-16,122	0	0	0	0	-1,726	-1,726
Other LUC	0	0	0	0	0	0	0	0	0	0	0
Agriculture											
Annual	0	0	0	0	0	0	0	0	0	0	0
Perennial	-1,320	-42,282	-40,962	-41,067	105	0	0	0	-66	-2,114	-2,048
Rice	0	0	0	0	0	0	0	0	0	0	0
Grassland & Livestocks											
Grassland	0	-450,938	-450,938	0	-450,938	0	0	0	0	-22,547	-22,547
Livestocks	0	0	0	0	0	0	0	0	0	0	0
Degradation & Management	146,837	-146,837	-293,673	-218,277	-75,396	0	0	0	7,342	-7,342	-14,684
Coastal wetlands	0	0	0	0	0	0	0	0	0	0	0
Inputs & Investments	0	0	0	0	0	0	0	0	0	0	0
Fishery & Aquaculture	0	0	0	0	0	0	0	0	0	0	0
Total	145,517	-674,572	-820,089	-277,738	-542,350	0	0	0	7,276	-33,729	-41,004
Per hectare	17	-78	-94	-31.9	-62.3	0.0	0.0	0.0			
Per hectare per year	0.8	-3.9	-4.7	-1.6	-3.1	0.0	0.0	0.0	0.8	-3.9	-4.7

Consequential (indirect) lifetime GHG emission avoided

According to the Guidelines for Greenhouse Gas Emissions Accounting and Reporting for GEF Projects (GEF/C.48/Inf.09, 7 May 2015), indirect emissions reductions have been re-defined as “consequential emissions”. Consequential GHG emission reductions are those projected emissions that could result from a broader adoption of the outcomes of a GEF project plus longer-term emission reductions from behavioral changes. Broader adoption of a GEF project proceeds through several processes including sustaining, mainstreaming, replication, scaling-up and market change.

Based on the initial consultations and assessments, the consequential potential is assumed to improve (i) grassland management thanks to the wide adoption of the management in the Mukogodo Landscape conservancies part of the project (it is estimated that 1/3 of the conservancies surface, 120,772/3=40,257ha, will be under improved management) and (ii) forest management over half of the Mukogodo Forest (30,189/2=15,095ha).

The consequential GHG emission mitigation potential during 20 years (5 years of implementation phase and 15 years of capitalization phase) from the project is estimated as **5,134,020 tCO₂e_q** in the considered biome and time frame.

Project Name	TRI: Restoration of and anc	Climate	Tropical (Dry)	Duration of the Project (Years)					20		
Continent	Africa	Dominant Regional Soil Type	Volcanic Soils	Total area (ha)					55352		
Components of the project	Gross fluxes			Share per GHG of the Balance					Result per year		
	Without	With	Balance	All GHG in tCO ₂ e _q			N ₂ O	CH ₄	Without	With	Balance
	Positive = source / negative = sink			CO ₂							
				Biomass			Soil	Other			
Land use changes											
Deforestation	0	0	0	0	0	0	0	0	0	0	0
Afforestation	0	0	0	0	0	0	0	0	0	0	0
Other LUC	0	0	0	0	0	0	0	0	0	0	0
Agriculture											
Annual	0	0	0	0	0	0	0	0	0	0	0
Perennial	0	0	0	0	0	0	0	0	0	0	0
Rice	0	0	0	0	0	0	0	0	0	0	0
Grassland & Livestocks											
Grassland	0	-2,970,631	-2,970,631	0	-2,970,631	0	0	0	0	-148,532	-148,532
Livestocks	0	0	0	0	0	0	0	0	0	0	0
Degradation & Management											
Coastal wetlands	1,081,695	-1,081,695	-2,183,389	-1,879,091	-484,298	0	0	0	54,085	-54,085	-108,169
Inputs & Investments	0	0	0	0	0	0	0	0	0	0	0
Fishery & Aquaculture	0	0	0	0	0	0	0	0	0	0	0
Total	1,081,695	-4,052,326	-5,134,020	-1,879,091	-3,454,929	0	0	0	54,085	-202,616	-256,701
Per hectare	20	-73	-93	-30.3	-62.4	0.0	0.0	0.0			
Per hectare per year	1.0	-3.7	-4.6	-1.5	-3.1	0.0	0.0	0.0	1.0	-3.7	-4.6

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