REPUBLIC OF KENYA

Ministry of Environment and Forestry

NATIONAL REDD+ STRATEGY

DECEMBER 2021

EXECUTIVE SUMMARY

This strategy describes Kenya's proposed approach for implementing the REDD+ programme. As a developing country aiming to achieve low emissions development through REDD+, Kenya submitted a Forest Reference Level to the UNFCCC in 2020 based on data and methods from the National Forest Monitoring System. The final version of the NFMS document is ready, and the development of a safeguard information system finalized. This strategy has built on existing documentation of the REDD+ mechanism, providing a way for the forestry sector towards a results-based payment programme.

Chapter one of the strategy provides a background to REDD+ at global and national levels and shows Kenya's REDD+ preparatory phase. This chapter also provides a vision, mission and objectives of the strategy. Chapter two identifies the drivers of deforestation and forest degradation resulting from the historical emission trends described in the FRL. These drivers have been classified by spatial distribution to cover the variety of forest strata and have been aligned to the four selected REDD+ activities. Agricultural expansion, encroachment of forest reserves, unsustainable wood extraction, and livestock grazing have been identified as some of the direct drivers of deforestation. The review broadly identified governance, economic, financial, policy, technical and demographic barriers to sustainable forest management with each or an interaction of the barriers resulting in the current state of the forest sector in Kenya.

Chapter three describes the existing framework of Policies, Laws and Regulations (PLRs) on which REDD+ implementation in Kenya is proposed. These are PLRs primarily related to land and tenure rights, forest conservation and management laws, climate change policies, environmental policies and national development policies. This chapter identifies policy gaps that may hinder REDD+ implementation and provides potential solutions. In Chapter four, the strategy identifies the existing institutional arrangement for REDD+ implementation that illustrates the roles and responsibilities of the national and devolved governments and the technical and administrative units of delivery. The chapter further explains the consultation and participation process, including the participation of the private sector, communities and indigenous people and the grievance redress mechanism.

The strategy prescribes strategic options in Chapter five, which allow inclusivity while maximizing the potential to reduce emissions from the forest sector. Strategic Option 1- *Scaling up afforestation, reforestation and landscape restoration programmes* relates to the achievement of the REDD+ activity Enhancement of carbon stocks through large scale and sustained afforestation programmes and supports the achievement of the 10% forest cover as indicated in the Constitution of Kenya. Strategic Option 2- *Enhance governance and policy implementation to prevent the conversion of forests to other land uses* aligned to the REDD+ activities of Reducing emissions from deforestation and forest degradation. It seeks to harmonize PLRs that have historically resulted in deforestation and support institutional arrangements that can sustain existing forests. Strategic Option 3 -*Increase productivity of public plantation forests*, relates to the REDD+ activity Sustainable management of forests. It targets the public plantation forests to maximize the productivity of these public commercial forests to avail wood resources for construction and industrial purposes while allowing effective participation of the private sector and the communities. A sustainably managed commercial forestry system removes pressure on farm forests and protects the natural forests hence supporting the attainment of objectives of strategic Options 1 and 2. Strategic Option 4 - *Enhance efficiency, effectiveness and skills throughout forest-related value chains* targets efficiency in wood product conversions and marketing and seeks to add value to the tree resources to motivate their conservation. Therefore, this strategic option supports implementing strategic options 1, 2 and 3. Strategic Option 5 - *Mobilize Finance for implementing REDD+ in Kenya* is a crosscutting option that seeks to avail resources to implant the four strategic options. It is based on the fact that Kenya is a developing country with limited budgetary allocations to the forest sector. However, it is noted that such resources for

sustaining the forest sector may be available in various sources. Therefore, there is a need to develop an aggressive institution to tap these resources. In addition, tables that specify the roles and responsibilities of the key stakeholders have been presented.

Chapter six describes the Monitoring, Reporting and Verification (MRV) component for REDD+ implementation guided by the REDD+ pillars of the FRL, the NFMS and the Safeguards Information System. It also provides requirements for aggregating REDD+ results in a registry and reporting such results through the National Greenhouse Gas Inventory and the periodic reporting to the UNFCCC through Biennial Update Reports (BUR) and National Communications

ACKNOWLEDGEMENTS

With the support of the United Nations Development Programme (UNDP) through financing the Forest Carbon Partnership Facility (FCPF), the Ministry of Environment and Forestry embarked and delivered on the key REDD+ instruments for Kenya. The National REDD+ Strategy is one of the pillars delivered, thus putting Kenya in the league of UNFCCC countries that have developed the REDD+ architecture.

In undertaking the various assessments and analytical work that have culminated in this National REDD+ Strategy, I wish to acknowledge the contributions and support of the following Ministries, State Departments and government institutions:

i. Ministry of Water and Sanitation
ii. Ministry of Lands and Physical Planning
iii. Ministry of Energy
iv. Ministry of Public Service, Youth and Gender
v. Ministry of Sports, Culture and Heritage
vi. The National Treasury and Planning
vii. Ministry of Interior and Co-ordination of National Government
viii. Ministry of Agriculture, Livestock, Fisheries and Irrigation

All the County Governments with close leadership of Council of Governors (COG), including:

- The Independent Commissions; National Lands Commission (NLC); The National Gender and Equality Commission (NGEC); the Kenya National Commission on Human Rights (KNCHR); Ethics & Anti-Corruption Commission (EACC).

- The other Government institutions that were involved include the Water Resources Authority (WRA); the Directorate of Resource Surveys and Remote Sensing (DRSRS); Kenya Electricity Generating Company PLC (KenGen PLC); Kenya Wildlife Services (KWS); the Climate Change Directorate (CCD); Kenya Forest Service (KFS), University of Nairobi (UoN), Kenyatta University (KU), National Environmental Management Authority (NEMA); Kenya Forest Research Institute (KEFRI); Kenya Water Towers Agency (KWTA); and other research institutions.

- The Kenya Association of Manufacturers; the Kenya Private Sector Alliance, Community representatives; the Indigenous Peoples and Local Communities representatives (IPLC) and the National Communities Forest Association (NACOFA).

I must state rather categorically that the successful completion of the REDD+ readiness phase and the production of the reports is owed to the fruitful, collaborative partnership between UNDP and the Ministry of Environment and Forestry. Furthermore, we sincerely thank the UNDP Resident Representative for expeditiously providing the required technical and financial support to undertake the task.

I also want to appreciate the coordination provided by Mr Alfred Gichu, Ag Head of Conservation Directorate and the National REDD+ Coordinator/Focal point in the Ministry of Environment and Forestry, the UNDP REDD+ Project Management Unit (Dr. Harun Warui - Project Manager; Ms Judy Ndichu - Technical Specialist; Mr Patrick P. Ole Twala - Stakeholders Engagement & Safeguards Specialist; Benard Abingo - M&E officer; Christabel Chanda - Communication Officer; Agnes Mwangi - Associate and Sharon Cheptoo

- Project Officer) for their dedication and leading of the various technical working streams to deliver this key output that puts Kenya on the path to REDD+ implementation.

Finally, I want to acknowledge the dedicated work of the REDD+ technical working groups who worked at various stages to deliver the National REDD+ Strategy for Kenya.

Dr Chris Kiptoo, CBS

Principal Secretary,

Ministry of Environment and Forestry

FOREWORD

This National REDD+ Strategy demonstrates Kenya's preparatory process towards REDD+ implementation. Therefore, it is an honor for me to present this important national document to you on behalf of the Government of the Republic of Kenya. This strategy completes REDD+ readiness elements indicated in Decision 1 of COP 16 Para 71 of the Cancun agreements, namely, the National Forest Monitoring System, a Forest Reference Level and Safeguard Information System.

Kenya's National REDD+ Strategy was developed through the hard work and support from several stakeholders and national experts. These valuable contributions and commitment to the process provide ample evidence of Kenya's determination to embrace and recognize REDD+ as one of the pathways for sound management of our natural resources. As Kenya makes positive strides in the REDD+ process, it has become increasingly evident that the mechanism will provide multiple benefits to safeguard its forest and wildlife resources. It will also ensure an optimal and sustainable flow of benefits to all segments of our society. Through our partnership with the Forest Carbon Partnership Facility (FCPF), Kenya commenced REDD+ readiness activities in 2009 with the submission and acceptance of our REDD+ Readiness Plan Idea Note (R-PIN). The United Nations Development Programme (UNDP) has accompanied Kenya in this process. Kenya has also benefitted immensely from the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD) technical guidance.

The culmination of developing the National REDD+ Strategy comes when Kenya's priority for conservation and sustainable management of forests is globally, regionally and nationally clear. Kenya was among the first signatories of the Glasgow CoP-26 declaration on forests which aims to *"halt and reverse forest loss and land degradation by 2030 while delivering sustainable development and promoting an inclusive rural transformation*. Besides this, Kenya has indicated in the updated National Determined Contributions submitted to the UNFCCC in 2020 that the forest sector has a mitigation potential of 40.2 million tonnes CO2 by 2030, becoming the greatest contributor to Kenya's climate change mitigation targets.

The National REDD+ Strategy has identified the key drivers of deforestation and forest degradation, as well as barriers that have impeded sustainable forest management and has proposed five strategic areas to reverse this, namely: (1) Scaling up afforestation, reforestation and landscape restoration programmes; (2) Enhance governance and policy implementation to reduce the conversion of forests to other land uses; (3) Increase productivity of public plantation forests; (4) Enhance efficiency, effectiveness and skills throughout forest-related value chains; and (5) Mobilise finance for implementation of REDD+ in Kenya. These strategic options comprise investment areas, each with specific implementation actions. The implementation vehicle for this Strategy is a Forest Investment Plan developed in parallel to this document.

Kenya's National REDD+ Strategy is also well-anchored within a very favorable policy environment. The Constitution, the National Development Plan (Vision 2030), the National Climate Change Policy (2016), the National Climate Change Action Plan (2018-2022), the Green Economy Strategy and Implementation Framework (2016-2030), the Climate Finance Policy (2017) and Green Fiscal Incentive Policy (2020) identify forestry as one of the key sectors for investment to deliver sustainable development and climate change goals.

In conclusion, I wish to reiterate Kenya's commitment to translating the National REDD+ Strategy into actionable interventions implementation, which will usher Kenya into a low-carbon development pathway and enhance the integrity of our environmental resources. The effective implementation of REDD+ will

also enable us to contribute meaningfully to global efforts to address climate change whilst providing significant opportunities to millions of Kenyans whose livelihoods depend on well-functioning forest ecosystems.

Thank you

Keriako Tobiko, CBS, SC,

Cabinet Secretary,

Ministry of Environment and Forestry

A Word of Solidarity from UNDP

UNDP has a long and cherished history of collaboration and partnership with the people of Kenya and the Ministry of Environment and Forestry (as well as its entities including the National Environmental Management Authority, Kenya Forestry Service, Kenya Meteorological Department, KEFRI, and the Climate Change Directorate). Through such partnerships and our robust portfolio of programs in environment and resilience implemented in close collaboration with the Ministry, UNDP has impacted many areas. These include environmental management, biodiversity, natural resource management, climate change and disaster risk management. We have delivered this National REDD+ Strategy, country approach to safeguards and key REDD+ documents for implementation.

Globally, forest ecosystems are under intense pressure from human actions, including deforestation, encroachment on wildlife habitats, intensified agriculture, and acceleration of climate change, which have pushed nature beyond its limit due to demand for more land and resources. It is astounding to note that annually the world loses about 4.7 million hectares of tropical forest every year, while Kenya loses 12,000 ha of forests. This loss is often attributable to the development of infrastructure and other human activities. However, it is a known fact that forests are essential to achieving climate goals – as they capture one-fourth of all carbon emissions. To minimize this loss of forests, I would like to applaud the Government of Kenya on the steps taken to facilitate the restoration of forest resources and increase the forest cover to the Constitutional requirement of at least 10% forest cover. I would also like to commend the Ministry of Environment and Forestry for its great strides in addressing climate change and deforestation by developing the national 10% forest cover strategy to guide its activities toward the restoration of 5.1 million hectares of deforested and degraded forests and other landscapes by 2022.

UNDP Kenya has and is committed to partnering with the Ministry of Environment and Forestry and development partners to implement forestry approaches and positive incentives to reduce deforestation and forest degradation emissions. Through this Strategy, Kenya will benefit from investments brought on by the results-based payments through Reducing Emissions from Deforestation and Forest Degradation. I would like to thank our donor, the World Bank, through the Forest Carbon Partnership Facility for investing resources to support national efforts towards achieving Kenya's reforestation goal of 10% forest cover and more. Through our flagship project REDD+, we have developed the National REDD+ Strategy, and the Country Approach to Safeguards to provide the overall vision, policies, measures and actions to address deforestation and forest degradation in Kenya. As UNDP, we commit to continue walking with the Government and people of Kenya to pursue long-term, transformative development and accelerate sustainable climate-resilient economic growth while slowing the soaring rates of Green House Gas emissions emanating from the forest sector.

Walid Badawi

Resident Representative, UNDP in Kenya

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LIST OF ABBREVIATIONS

AD	Activity Data
AFOLU	Agriculture, forestry and land use
BAU	Business as usual
CCB	Community and Biodiversity
CCD	Climate Change Directorate
CFA	Community Forest Association
CIS	Corporate Social Investment
COMESA	Common Market for East and Southern Africa
COP	Conference of Parties
CSR	Corporate Social Responsibility
DRD	Declaration on the Right to Development
DRSRS	Department of Resource Surveys and Remote Sensing
EACM	East African Common Market
EF	Emission Factor
EMCA	Environment Management and Coordination Act
FCMA	Forest Conservation and Management Act
FCMTF	Forest Conservation and Management Trust Fund
FCPF	Forest Carbon Partnership Facility
FGRM	Feedback Grievance and Redress Mechanism
FIP	Forest Investment Plan
FIS	Forest Information Systems
FLEG	Forest Law Enforcement and Governance
FPIC	Free, prior and informed consent
FRL	Forest Reference Level
GBM	Green Belt Movement
GDP	Gross Domestic Product
GESIP	Green Economy Strategy and Implementation Plan
GHG	Greenhouse Gas
ICESCR	International Covenant on Economic, Social and Cultural Rights

IFC	International Finance Corporation
IGAD	Intercontinental Authority on Development
IPs	Indigenous people
IPLC	Indigenous Peoples and Local Communities
KEFRI	Kenya Forestry Research Institute
KFS	Kenya Forest Service
KNHRC	Kenya National Human Rights Commission
KTDA	Kenya Tea Development Agency
KWS	Kenya Wildlife Service
KWTA	Kenya Water Tower Agency
LULUCF	Land use, land-use change and forestry
ME&F	Ministry of Environment and Forestry
MRV	Measurement Reporting and Verification
NCCAP	National Climate Change Action Plan
NCCRS	National Climate Change Response Strategy
NDC	Nationally Determined Contribution
NEPAD	New Partnership for Africa's Development
NET	National Environment Tribunal
NFI	National Forest Inventory
NFMS	National forest Monitoring System
NFP	National Forestry Programme
NGO	Non-Governmental Organization
NLC	National Land Commission
NMK	National Museums of Kenya
NGEC	National Gender and Equity Commission
NRCO	National REDD+ Coordination Office
NRT	Northern Rangelands Trust
PLRs	Policies Legislation and Regulations
PELIS	Plantation Establishment and Livelihood Improvement Scheme
REDD+	Reducing Emissions from Deforestation and forest Degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

SDGs	Sustainable Development Goals
SIS	Safeguard Information System
SMF	Sustainable Management of Forests
SLEEK	System for Land-Based Emission Estimation in Kenya
TNC	The Nature Conservancy
UNDP	United Nations Development Programme
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNFCCC	United Nations Framework Convention on Climate Change
VCS/VERRA	Verified Carbon Standard

1. CHAPTER ONE: INTRODUCTION

Global Context

Globally, forests cover about 4 billion ha or 31 per cent of the world's land surface. Their destruction releases the stored carbon into the atmosphere causing an imbalance in the carbon cycle. Deforestation is estimated to cause 12% of global GHG emissions, majorly contributing to anthropogenic climate change (UN-REDD 2018).

REDD+ is an international framework that aims to mitigate climate change by incentivizing developing country efforts that address the problem of deforestation and forest degradation and those that promote conservation, sustainable forest management and afforestation and reforestation. The UN-REDD (2018) defines REDD+ as an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low- carbon paths to sustainable development. Established under the United Nations Framework Convention on Climate Change (UNFCCC), policy frameworks for REDD+ implementation have been addressed in the Bali Action Plan, Cancun agreements· the Warsaw REDD+ Framework and the Paris agreement among other Conference of Parties (CoP) decisions.

REDD+ can generate other substantial benefits in addition to mitigating climate change, such as biodiversity conservation, conservation of water catchments, climate change adaptation, low-emission development, and strengthening forest peoples' rights and livelihoods. REDD+ can also stimulate private sector action, and enable cooperation with businesses to reduce deforestation associated with the production of key global commodities.

> REDD+ stands for 'Reducing Emissions from Deforestation and forest Degradation; the "+" signifies the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

The Cancun Agreements[1] to UNFCCC requires countries participating in REDD+ to have the following four elements in place for REDD+ implementation to access results-based payments

i. A National Strategy (NS) or Action Plan (AP);
ii. A robust and transparent National Forest Monitoring System (NFMS) for the monitoring and reporting of REDD+ activities, including measurement, reporting and verification (MRV);
iii. A national (or subnational) Forest Reference Emission Level (FREL) and/or Forest Reference Level (FRL);
iv. A Safeguards Information System (SIS).

The Policy Frameworks for REDD+ implementation were concluded in Warsaw during the 19th CoP to UNFCCC, when critical decisions were made related to (i) financing; (ii) transparency and safeguards; (iii) monitoring; (iv) verification; (iv) institutional arrangements; and (v) drivers of deforestation.

The REDD+ mechanism in developing countries, while contributing to global climate change convention, is identified as a key vehicle for delivering forest sector goals under the UNFF, CBD and the UNCCD. Countries have already made commitments towards achieving land degradation neutrality.

1 Decision 1/CP.16 - https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf

National Context

1.1. The Country Profile

Kenya is located in East Africa, lying across the equator at latitude of 4° North to 4° South and Longitude 34° East to 41° East. Kenya borders South Sudan and Ethiopia in the north, Somalia to the east, Indian Ocean to the south-east, Tanzania to the south and Uganda to the west (Fig. 1). The country has a total area of 592,038 Km^2 including 13,400 km^2 of inland water and a 536 km coastline.

Kenya's geography is diverse and varied and can be divided into the following geographic regions: the Lake Victoria basin; the Rift Valley and associated highlands; the eastern plateau forelands; the semiarid and arid areas of the north and south; and the coast. These regions fall into seven agro-climatic zones ranging from humid to very arid. Less than 20% of the land is suitable for cultivation, of which only 12% is classified as high potential (adequate rainfall) agricultural land and about 8% is medium potential land. The rest of the land is arid or semi-arid.

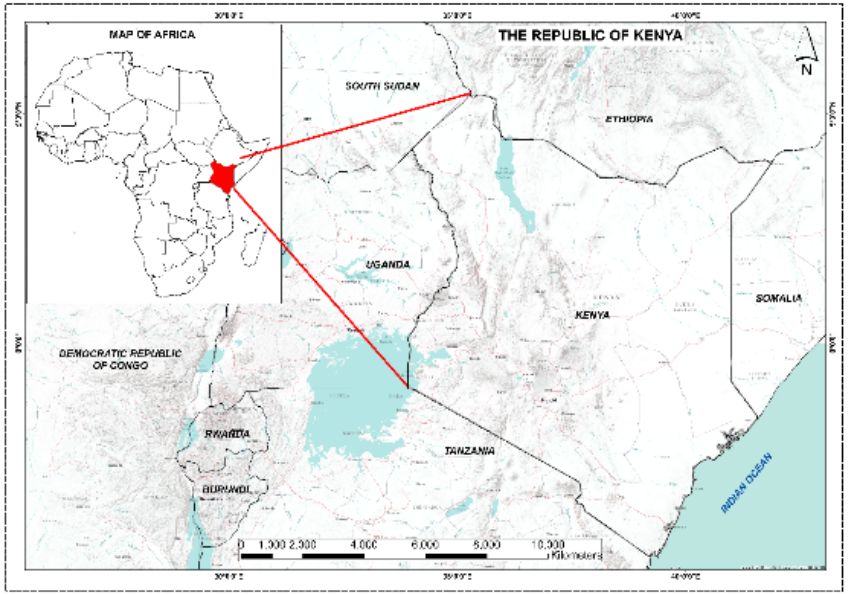


Figure 1: Location Map of Kenya

1.1.1 The Forest Sector and the Policy Environment

Kenya is a low forest cover country. The Forest Reference Level (FRL) technically assessed at the UNFCCC in 2020 reports a forest cover of 3,462,536 ha or about 5.9% of the country's total area in 2018. This is a decline from the 6.2% in the year 2002. The FRL provides stratification for the different types of forests with their specific characteristics as described in Box 1.

Box 1: The forest strata of Kenya

Montane and western rain forests: Are forests occurring at 1,500m above the sea level and include all the water towers such as Mt. Kenya, the Aberdares, Mau Forest Complex, the Cherangani Hills, Mt Elgon, Mt Nyiro, Mt Kulal, Mathews Range and Mt Marsabit forest ecosystems, among other forests found at altitudes higher than 1500m. These forests form the catchments of the main rivers of Kenya's "water towers". They also comprise forests occurring in private lands within this altitudinal range.

Coastal & mangrove forest areas: Are found in a narrow coastal strip approximately 30 km from the shore and include mangroves. These are found in the Counties of Lamu, Tana River, Kilifi, Mombasa and Kwale (KFS, 2017).

Dryland forest areas: Are found in the dry areas which lie between the coastal forests and the montane forests and are found in counties of Kitui, Machakos, Taita Hills, Laikipia, Baringo and Samburu. Patches of dry forests are also found in the Lake Victoria region.

Public forest plantations: This is a commercial management strata comprising exotic plantation species managed by the KFS. The predominant species in public plantations are Cypress and Pines (86%), Eucalyptus (10%), and some indigenous species (e.g. *Vitex Keniensis* and *Juniperus procera*).

Despite this, Kenya's forest resources are of immense importance for their contribution to economic development, rural livelihoods, and the environmental and ecosystem services. Forests are important for the success of key economic sectors, including agriculture, horticulture, tourism, wildlife, and energy. The forest sector is the backbone of Kenya's tourism since forests provide habitats for wild animals, offer dry season grazing grounds for wildlife and livestock and protect catchments that provide water downstream. Forests maintain water catchments (defined as water towers) critical to support agriculture, industry, horticulture, and energy sectors, and contribute more than 3.6 per cent of GDP[2]. In some rural areas, forests contribute to over 75% of the family cash income and provide virtually all of household's energy requirements. It is estimated that economic benefits of forest ecosystem services exceed the short-term gains of deforestation and forest degradation and therefore justify the need to conserve the forests.

Therefore, a coordinated approach, coupled with forest conservation and management incentives, is needed to sustain and conserve forests. Such an effort will achieve the required 10% national forest[3] cover as set out in Vision 2030, the National Climate Change Response Strategy (2010) and the Nationally Determined Contributions to the Paris Climate Change Agreement (2020).

To realize this goal, Kenya seeks to establish and operationalize its REDD+ architecture, as an incentive mechanism, in line with the policy frameworks developed as requirements for REDD+ implementation under the UNFCCC. Kenya's updated Nationally Determined Contributions (NDC)[4] to the Paris Climate Change Agreement, submitted to the UNFCCC in 2020 identified the forest sector as a priority area to move Kenya towards a low-carbon, climate-resilient development pathway. The updated NDC identified

2 Forest Accounts Provide the Evidence Kenya Needs to Drive Policy

3 The term forest and tree have been interchangeable here and as seen in policy documents. However the intent is restoration that encompasses economic, social and benefits.

4 https://climateactiontracker.org/climate-target-update-tracker/kenya/#:~:text=In%20December%202020%2C%20Kenya%20submitted,e%20using%20IPCC%20SAR%20values).

the forest sector as having a mitigation potential of 40.2 million tons CO_2 by 2030 of which 20.8 million tons CO_2 is committed in the NDC.

In response to a global call for action contained in the New York Declaration on Forests, the Bonn Challenge and the African Forest Landscape Restoration Initiative (AFR100), the Government of Kenya has committed to restoring 5.1 million ha of degraded land by 2030. The opportunities for restoration have been identified and current discussions revolve around the best strategies for restoration. In addition, Kenya is one of the first countries to sign the CoP-26 Glasgow Declaration on Forests which aims to *"halt and reverse forest loss and land degradation by 2030, while delivering sustainable development and promoting an inclusive rural transformation."*

Significant policy, legislative and institutional changes have occurred over the decade that support the REDD+ efforts in the country. The Constitution, the National Development Plan (Vision 2030), the Arid and Semi-Arid Lands (ASALs) Policy (2012), the National Land Policy (2018) and supporting legislation, the National Climate Change Action Plan (2018-2022), the Green Economy Strategy and Implementation Framework (2016-2030), the Climate Finance Policy (2017) and Green Fiscal Incentive Policy (2020) identify forestry as one of the key sectors for investment to deliver sustainable development and climate change goals. Several environmental, wildlife and forest policies and supporting legislation are currently under review to align them with the Constitution of Kenya (2010) and embrace emerging issues like climate change, participatory management, and REDD+. Capacities of key institutions like the National Land Commission, Kenya Forest Service and Kenya Wildlife Service are undergoing reforms and being strengthened to provide the required support and guidance for effective governance of land and sustainable management and conservation of forests and allied resources. Similar efforts are being directed to county governments and Community Forest Associations to strengthen their engagement in forest conservation efforts. Kenya Forest Service has undergone significant transformation, in line with the Forest Management and Conservation Act 2016, to embrace a decentralized and transparent approach to forest management that ensures participation of stakeholders. Significant support has been extended to forestry conservation efforts in the dry lands, considering that these areas hold most of the country's forest resources, and equally the greatest potential for reducing carbon emissions and enhancing forest carbon stocks. The National REDD+ Strategy therefore seeks to reinforce these activities and future sector engagements.

Kenya has a National Forest Program (NFP), a long-term forest sector development framework consistent with national policies and international commitments. The NFP is integrated with the country's sustainable development strategies, promotes good forest governance and supports holistic, inter-sectoral approaches. The National Forest Program's Strategic objectives include increased forest and tree cover and reversal of deforestation and forest degradation, enhanced forest-based economic, social and environmental benefits, enhanced capacity development, research and adoption of technologies, increased investments in forest development and strengthened forest sector governance.

Kenya is also a signatory of regional agreements on forest conservation including the development of an East African Community (EAC) forest policy and strategy, the East African treaty on biodiversity, the EAC forest conservation and management bill 2015 and the development of a forest policy and strategy for the Intergovernmental Authority on Development (IGAD) region and support for the IGAD climate center among others. Therefore, as it is apparent that some of the natural resources are transboundary, there is need to have a common understanding on conservation development of a forest policy and strategy for the Intergovernmental Authority on Development (IGAD) region and support for the IGAD climate center among others.

Despite all these efforts, deforestation and forest degradation continue to pose significant challenges driven by pressure for conversion to agriculture, urbanization and other developments, unsustainable utilization of forest resources, inadequate forest governance and forest fires. Therefore, the country is

exploring a wide range of options, including policy reforms and investments, to protect the existing forests and substantially restore forest ecosystems. The added value of a National REDD+ Strategy is the provision of a comprehensive framework to reduce deforestation and forest degradation towards results-based payments. Besides safeguarding Kenya's forests, the Strategy focuses on climate change mitigation options through the policies and measures defined here. It therefore does not seek to replace any of the policy documents hereto mentioned.

The REDD+ Readiness Process

1.2. REDD+ Readiness Proposal

Kenya signaled its willingness to embark on REDD+ in 2009 and received funds from the Forest Carbon Partnership Facility (FCPF) to develop a REDD+ Readiness Preparation Proposal (R-PP). Following the approval of the R-PP in 2010, funding of USD 3.88 million was secured from the FCPF in 2016 to implement a REDD+ readiness project aiming to achieve four overarching goals: (i) realization of Constitutional and *Vision 2030* objectives of increasing national total forest cover to a minimum of 10%; (ii) support the national government's efforts to designing policies and measures to protect and improve its remaining forest resources; (iii) realization of the National Climate Change Response Strategy goals; and (iv) contributing to global climate change mitigation and adaptation efforts. The project has been implemented over June 2018-December 2021 by the Ministry of Environment and Forestry (MoEF) in partnership with UNDP as the delivery partner, and in collaboration with several responsible parties in delivering key result areas through the National Implementation Modality (NIM). The project aims to put in place mechanisms to enable Kenya to reach its overall REDD+ goal of improving livelihoods and wellbeing, conserving biodiversity, contributing to the national aspiration of a minimum 10% tree cover, and mitigating climate change for sustainable development. This will be achieved through four outcomes: (i) an operational national REDD+ strategy and investment plan; (ii) an operational safeguards information system for REDD; (iii) a functional multi-stakeholder engagement and capacity building for REDD+; and (iv) technical support provided for improvement to the National Forest Monitoring System and Forest Reference Level.

1.3. Progress on Warsaw REDD+ Framework Elements

Kenya achieved important milestones regarding the development of Warsaw REDD+ Framework elements. Kenya has designed a National Forest Monitoring system (NFMS) anchored in two major programmes which generate Activity Data (AD) and Emission factors (EF) for GHG inventories in the forestry sector. The components of the NFMS are: (i) a national forest inventory programme which has developed data collection manuals[5] and has a National Forest Inventory Design, and (ii) a National Land Cover Change Monitoring programme, based on the System for Land based Emission Estimation for Kenya (SLEEK) model, which has generated land cover change information for the period 1990-2018.

Kenya has developed and submitted its Forest Reference Level (FRL) to the UNFCCC[6] as a requirement for REDD+ implementation. The FRL identifies the following selected REDD+ activities and defined in Table 1 below:

- *Reducing emissions from deforestation;*
- *Reducing emissions from forest degradation;*
- *Enhancement of forest carbon stocks through afforestation/reforestation and forest canopy improvement;*
- *Sustainable Management of forests.*

5 https://www.kefri.org/PDF/Publications/Kenya_FieldManual.pdf

6 https://redd.unfccc.int/files/kenya_national_frl_report-_august_2020.pdf

The FRL has identified historical emissions from the forest sector in 2002-2018 estimated at 52,204,059 tCO2/year under the Business-as-Usual Scenario. In addition, the FRL has detailed the historical trend of emissions from each of the REDD+ activities and categorized emissions by forest strata as a preliminary indicator of the effects of drivers of deforestation and forest degradation.

Table 1 Definition of REDD+ activities as domesticated in Kenya

Activity	Kenyan definition
Reducing emissions from deforestation	Refers to efforts that reduce emissions from conversion of forestland to non-forestland (e.g., cropland, grassland, wetland, settlement)
Reducing emissions from forest degradation	Refers to efforts that reduce emissions within forest land that remains forest land and is captured from reduction in canopy cover in a forest remaining forestland (e.g., conversion from dense to open canopy)
Enhancement of forest carbon stocks	Refers to efforts that increase forest carbon stocks through afforestation, enrichment planting or conservation of forests. For example, in Kenya it is captured from conversion of non-forests to forestlands and increase in canopy cover e.g., from open to dense forest.
Sustainable management of forests	Refers to bringing the extraction rate in line with the rate of natural growth or increment to ensure near-zero net emissions over time. In Kenya this aims at zero net emission from public plantations through sustainable harvesting cycles

Kenya's REDD+ Vision, Mission & Principles

Efforts to increase forest cover and address the problem of deforestation and forest degradation in the country have been eroded by direct drivers including increasing demand for land for agriculture, settlement and other developments, high energy demand and inadequate funding to support investments in the forestry sector. In addition, unresponsive policy and poor governance in the forestry sector have often compounded the problems. REDD+ presents an opportunity to reverse the negative trend by providing incentives to implement a comprehensive strategy that effectively supports sustainable management and conservation of existing forested areas.

Kenya's participation in REDD+ is premised on the conviction that the process holds great potential in supporting the:

- Realization of vision 2030 and the National Forest Program (2016) objectives of increasing forest cover to a minimum of 10%;
- Government's efforts in designing policies and measures to protect and improve its remaining forest resources in ways that improve local livelihoods and conserve biodiversity;

- Realization of the National Climate Change, biodiversity conservation and Land Degradation Neutrality commitment goals.
- Access to global and national climate change finance (public and private) to support investments in the forestry sector;

Kenya's REDD+ visions, goals and principles are based on the above, informed strongly by the National Forest Program

Vision: By 2030, Kenya achieves 10% of national tree cover and becomes a carbon neutral middle-income country providing a high quality of life to all its citizens in a clean and secure environment.

Mission: To support Kenya's goal to achieve low-emission development through REDD+ for multiple benefits.

Specific Objectives:

1. Increased forest and tree cover
2. Enhanced productivity of the forest
3. Increased investments in forest development
4. Protecting existing forest cover
5. Integrated good governance in forestry sector
6. Enhanced forest based economic, social and environmental benefits
7. Enhanced livelihoods of the Indigenous Peoples and Local Communities

Guiding Principles:

. Integrated in national objectives of forest conservation and management
. Leveraged on existing frameworks for climate change mitigation
. Underpinned by good governance, including effective participation of key stakeholders (e.g., indigenous people, private sector, etc.)
. Informed by national and international best fit practices and lessons learned

Process of developing the Strategy

The development of this Strategy has used a three-pronged approach

1. Analytical studies to support strategy and implementation framework included
   - Detailed analysis of drivers of deforestation and forest degradation
   - Analysis of demand and supply of forest products in the country
   - Charcoal value chain analysis & barriers to investment
   - SESA and road map including a FGRM
   - Study of legal preparedness
   - Carbon rights, benefit sharing and corruption risks studies
   - Assessment of financing options and benefits distribution mechanism
   - Stakeholders and FPIC guidelines
2. An intensive stakeholder consultation to identify various stakeholders' needs, gaps, and opportunities to participate in REDD+ implementation.
3. Stakeholders' validation processes among stakeholder groups.

2. CHAPTER TWO: DRIVERS OF LAND USE CHANGE AND BARRIERS TO ADDRESS DEFORESTATION AND FOREST DEGRADATION

Introduction

Information from the Forest Reference Level indicated in chapter one shows that Kenya is a low forest cover country and this forest cover has been decreasing over time. This chapter analyses the drivers of deforestation and forest degradation and their impact on forest cover change.

Drivers of Deforestation and Forest Degradation

Noting that the forest cover in Kenya has been decreasing as describe above, this section illustrates the main agents (direct or proximate) or drivers and underlying causes of deforestation and forest degradation and their motivations in Kenya. Figure 2 summarizes the links between the proximate causes of deforestation and degradation and the underlying causes described in the sections below.

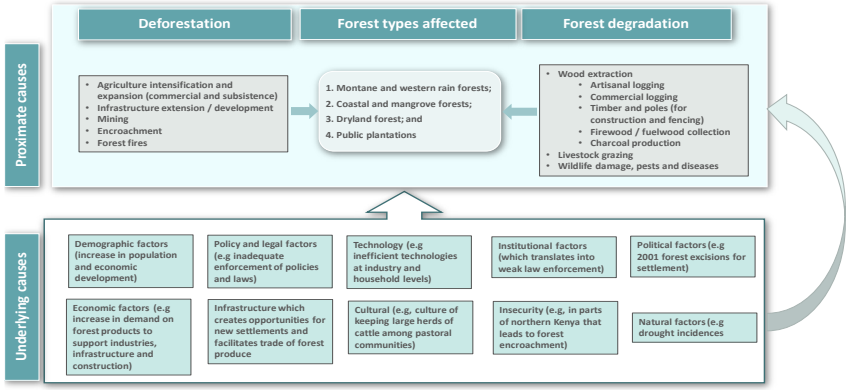


Figure 2: Proximate and underlying causes of deforestation and forest degradation in Kenya

2.1. Direct (proximate) Drivers of deforestation

According to Kenya's forests classification to four forest strata and emissions source categories, the proximate drivers of deforestation and forest degradation are analysed below.

2.1.1 Agricultural expansion

Agricultural expansion in Kenya is motivated by subsistence and the market economy. It can be further subdivided into:

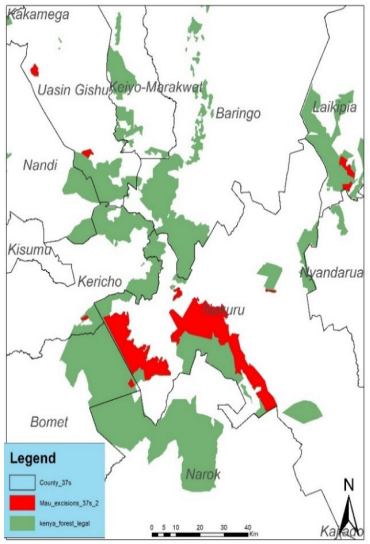
- Shifting cultivation which occurs in the communal lands where communities clear forests and plant for short rotations before abandoning the sites

- Subsistence agriculture which results to total conversion of forestlands to croplands and is best illustrated in encroached forest areas
- Commercial farming which results to conversion of forests into perennial croplands

Particular geographies or zones are additionally impacted as follows:

Montane and western rain forest strata: Found in the mid- to high- potential areas adjacent to Kenya's densely populated agricultural production zones. Three major processes of forest loss to agriculture have been noted here

i. Some forests have gradually been cleared resulting to conversion of forestlands to croplands. For example, forest excisions claimed 66,400 ha of montane forests into agriculture (Figure 3).
ii. Illegal farming in forests in areas of weak enforcement. The forest is normally converted into agriculture and later abandoned resulting in either a reforestation process or a conversion into grassland (Rufino et al. 2017).
iii. Conversion of private and communal forests into agricultural land due to higher demand for agricultural land.



Forest block	County	Area (ha)
SW Mau	Nakuru	24,000
East Mau	Nakuru	35,000
Kiptagich	Bomet	525
Transmara	Narok	1,000
Molo	Nakuru	914
Menengai	Nakuru	277
Kapsaret	Uasin Gishu	1008
North Tinderet	Nandi	857
Marmanet	Laikipia	2,810
Total		**66,391**

Figure 3: Areas in montane forests lost into Agriculture

Coastal and mangrove forests: In the coastal region where rural poverty is comparatively high, cultivation for subsistence has increased over time with increasing population resulting to deforestation. Another motivation for agricultural expansion in the coastal region are the growing markets in the urban areas of Malindi, Kilifi and Mombasa.

Dryland forests: Expansion of agriculture to marginal areas has increased due to the increase in population and changing lifestyles of pastoral communities into sedentary livelihoods. For example, in Ewaso North

Conservancy, agricultural expansion has been confined to riverine forests and around forested mountain ecosystems of dryland areas such as Mt Kulal and Mt Marsabit (Ministry of Forestry and Wildlife, 2013).

Similarly in these drylands, the creation of settlement areas where former forestlands are converted into settlement areas and agricultural activities are actively claiming forestlands. In such settlement areas, there is active tree removal and the land conversion into agriculture to meet the food requirements of the settled population.

The Galana Kulalu irrigation scheme located in Coastal region within Kilifi and Tana River Counties is an example of a large scale scheme. This scheme converts the natural vegetation into other land use consisting of various enterprises, including maize, sugarcane, horticulture and orchards, dairy and beef ranching, fisheries, tourism and recreation, processing industries and human settlement.

2.1.1 Wood extraction

Wood extraction can be defined as single cutting or removal of trees for timber, posts, fuelwood and charcoal that may not result into immediate deforestation. When extraction rates exceed the rate of regeneration, the forest is degraded. Extraction of wood for fuelwood and for charcoal production is the biggest consumer of wood.

Montane and western rain forests: Illegal timber logging is mainly associated with unsustainable wood exploitation. Unsustainable wood extraction has been observed around towns where wood fuel from forests is marketed to towns and urban areas such as Isiolo in Northern rangelands, Eldoret, and Kitale in South Rift, Bomet and Nakuru in South Rift (Ministry of Forestry and Wildlife, 2013). Illegal logging timber and construction poles has also been observed for *Podocarpus latifolius, Podocarpus falcatus, Neutonia buchananii, Olea welwitschii, Juniperus procera, Prunus africana and Aningeria adolfi-friediricii* (Ministry of Forestry and Wildlife, 2013).

The enforcement of a moratorium since 2018 on harvesting in public plantations as they were not being effectively managed/replanted, has shifted logging to private plantations and small scale tree farms where the chain saw is the main method of wood processing. However, the chain saw is wasteful (estimated at 40% efficiency) increasing the need to cut more trees to meet the same wood requirement.

Logging in South Western Mau Forest Reserve (September/October 2016); Source: http://www.environment.go.ke/wp-content/uploads/2018/05/Task-Force-Report.pdf

Charcoal making in South Western Mau Forest Reserve (September/October 2016); Source: http://www.environment.go.ke/wp-content/uploads/2018/05/Task-Force-Report.pdf

Coastal and mangrove forests: At the coast, charcoal and firewood are supplied from the drier woodlands in Kwale and Taita-Taveta areas to the Metropolitan populations of Mombasa and other coastal urban areas. The coastal forests such as Arabuko Sokoke Forest are threatened by illegal logging of indigenous trees and charcoal making and wood carving. In Kwale, large quantities of charcoal are illegally transported from Kwale to Mombasa, coming from surrounding woodland and bushland areas of the coastal forests which are usually unprotected or under private ownership. The *Brachystega* and *Cynometra* woodlands of Ganze and Vitengene areas of Kilifi County are threatened by these activities. For years, mangrove forests have been harvested for construction poles and charcoal production at the local level and supply export markets in the Middle-East. In Mombasa County, for instance, the loss of mangroves is reported to exceed 80% in the last decade (Ministry of Environment and Forestry, 2018).

Dryland forests: Kenya's FRL established that most of the forest conversion is taking place in dryland forests, and this is mostly driven by fuelwood, charcoal and wood carving. Illegal logging of Sandalwood is prevalent in the dryland forests adjacent to Mathews Range (Samburu County), Marsabit (Marsabit County), Chyullu Hills (Makueni/Kajiado County), and Loita Hills (Narok County) ecosystems (Ministry of Environment and Forestry, 2018).

Public plantations: The FRL identified huge backlogs of replanting following harvests in public plantations. Some have delayed the planting dates by over 20 years (Ministry of Environment and Forestry, 2018). A moratorium on harvesting in these forests has been in place since 2018 but it is noted that logging is now concentrated in private plantations and small holder tree farmers.

2.1.1 Livestock Grazing

Overgrazing in forests often reduces the natural regenerative potential of forests and woodlands. Grazing is also associated with forest fires because livestock grazing communities have a tradition of setting fires in the forest to improve pasture and kill ticks (Kinyanjui, 2009). Unsustainable livestock grazing within forest landscapes is primarily driven by subsistence needs to support livelihood of smallholder farmers with small areas of land.

Montane and western rain forests: Livestock by local farmers, absentee owners/traders who employ local people, pastoralists who travel from far during dry seasons and smallholder farmers have been recorded in montane forests (SNV, 2016). Unsustainable grazing has been identified in Kapkanyar, (Cherangani Block),

South West Mau forest of the Mau Complex, Aberdares forest and Mount Kenya forest. Here, regulation by KFS through grazing permits has not overcome the problem of livestock herds especially because some are left to graze in the forests for many months.

In the forests of the Northern rangelands (Leroghi, Mukogodo, Ndottos, Marsabit, Mathews Range and Mt Kulal), the threat of livestock grazing is real. These forests provide dry season grazing grounds and the pastoralist communities keep large herds comprising cattle, camels, donkeys and shoats. Hundreds of these livestock are left to roam in the forest for the entire dry season, causing damage especially to young seedlings.

Coastal and mangrove forests: Compared to other forest types, livestock grazing is not a major driver of forest degradation in many parts of the coastal region. In Kwale it contributes to forest degradation in forested parts of group ranches and in protected and not protected forests in Taita Taveta and Lamu Counties.

Dryland forests: Unsustainable grazing practices in forests and rangelands, resulting in severe degradation from overstocking and overgrazing by domestic livestock (particularly cattle and shoats) are a pervasive threat across northern Kenya. Regional movement of livestock in Samburu, Laikipia, Marsabit and Isiolo counties contributes to about 75% of forest degradation and 95% of woodland degradation according to analysis of drivers of deforestation undertaken during a REDD+ feasibility study by Conservation International in 2017.

2.1.1 Infrastructure extension

Infrastructure such as urban settlements, roads, dams, and railway are direct and underlying drivers of forest loss. Clearing forests for infrastructure is a direct driver, while infrastructure construction such as roads, rail lines and towns outside forests facilitates access and markets to forest products. For example, the Lamu Port-South Sudan-Ethiopia Transport (LAPSSET) road network allows easy transportation of wood material and has been identified as a threat to mangrove ecosystem. In addition, large scale infrastructural projects like the Standard Gauge Railway and the High Voltage power lines like the Loiyangalani–Suswa High Voltage Power Line result to clearance of forests on each side of the line and contribute to deforestation.

Creating roads inside forests, for example the Arorwet/Sambret road in Mau forest and Mau Mau Road in Aberdares have been identified as threats to the forest since they facilitate easy access and easy exploitation of forest resources. Similarly, construction of dams in forests such as Itare Dam in Kuresoi, Nyekundu Dam in Marmanet and Lembus Dam in Eldama Ravine result in the clearance of forests and the water distribution pipelines associated with the dams result to forest clearance.

2.1.1 Mining

The Kenyan coast is endowed with a variety of mineral resources. Compared to other forest types, mining is a key driver of deforestation at the coast. Such deposits include iron ore, limestone, marble, lead and, more recently discovered, the 'rare earths' such as 'niobium' and titanium. Exploitation of these resources poses a major threat to Kenya's coastal forests. Salt mining in Malindi and Lamu are threatening nearby mangroves and coastal forests. In the Pangani area of Kilifi, mangrove forests on coral limestone have been damaged by limestone extracted for cement manufacture. The limestone occurs in an extensive band along the coast. In other parts of Kenya, there are rich deposits of soda ash, fluorspar, gypsum, diatomite, chromite, limestone, and silica sand which are also major causes of deforestation and forest degradation during extraction.

2.1.1 Fire

Damage caused by fire to vegetation, particularly anthropogenic wildfires, can damage trees. It can contribute to forest degradation and deforestation if they develop into wildfires affecting large areas. The

FAOSTAT[7] data, which provides other fire data for different countries, shows that fires are mainly on non humid forests and were highest in 1997, 2000 and 2015 (Figure 4). Periodic fires have been identified on the moorland zones of Mt Kenya and Aberdares and in some instances, the fires have spread downwards to the adjacent forests. Most forest fires are associated with careless small fires, honey gathering, pasture improvement, charcoal burning, and land clearance for agriculture.

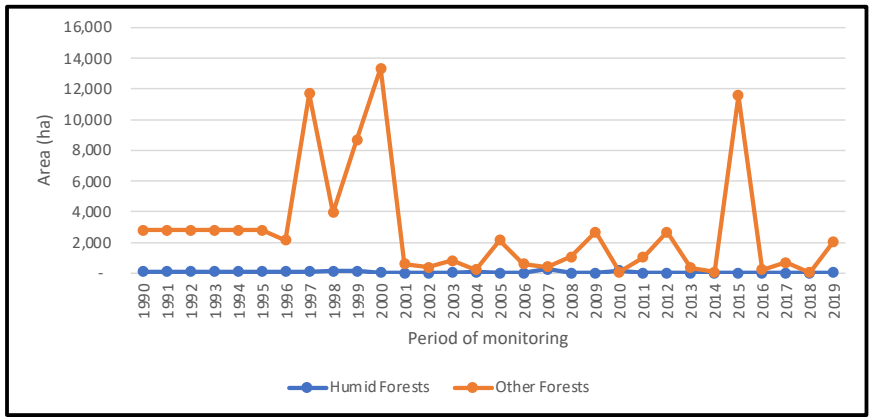


Figure 4: Fire effects in forests of Kenya's in the period 1990-2019 (Source FAOSTAT)

2.2. Manifestation of drivers of forest change as classified in the FRL

The drivers of forest change described above were analyzed by numbers based on the data used to develop the FRL. Table 2 and 3 provides an overview of the above drivers and their level of significance in montane and western rain forests, coastal and mangrove forests and public plantations.

7 http://www.fao.org/faostat/en/#data/GI

Table 2 Annual transitions of deforestation and key drivers

Forest strata	Source category	Change statistics (ha)					Key drivers of deforestation	Counties/regions of occurrence
		2002-2006	2006-2010	2010-2014	2014-2018	average per year		
Montane &Western Rain Forest	Forestlands converted to cropland	136,088	66,650	85,184	106,676	24,662	Encroachment (e.g. through forest excisions) (H) Agriculture expansion (I)	Mau Forest Complex, Mt Elgon, Cherangany, Marmanet Central, Nyanza, Rift Valley and North Rift Regions
	Forestlands converted to grasslands	282,025	218,803	204,147	197,231	56,388	Encroachment (I) Charcoal burning (I)	Mau Forest Complex, Northern Kenya (Mathews Range, Leroghi, Mt. Marsabit, Mt. Kulal)
	Forestlands converted to settlements & Other lands	959	2,469	896	879	325	Encroachment (I) Infrastructure (I)	Mau Forest Complex, Mt Elgon, Cherangani Regions
	Forestlands converted to wetlands	422	316	365	504	100	Infrastructure e.g. construction of Dams (I)	Mau Forest Complex, Nandi forests
Coastal and mangrove forests	Forestlands converted to cropland	13,162	1,440	6,592	10,097	1,956	Agriculture expansion including irrigation schemes (I) Encroachment	Malindi, Taita Taveta, Kilifi and Lamu
	Forestlands converted to grasslands	185,658	106,079	200,157	213,389	44,080	Charcoal production (I)	Kwale, Kilifi and Lamu
	Forestlands converted to settlements & Otherlands	1,790	555	1,301	1,070	295	Mining (I) Infrastructure (I)	Kwale, Malindi and Lamu
	Forestlands converted to wetlands	942	1,780	1,387	2,100	388	Mining (clearing of mangroves for salt harvesting) (I)	Malindi

Forest strata	Source category	Change statistics (ha)					Key drivers of deforestation	
		2002-2006	2006-2010	2010-2014	2014-2018	average per year		Counties/regions of occurrence
Dryland forests	Forestlands converted to cropland	64,442	42,171	47,162	33,334	11,694	Expansion of agricultural areas and irrigation schemes (l)	Kitui, Kajiado, Makueni
	Forestlands converted to grasslands	770,008	605,221	964,383	769,633	194,328	Charcoal production (l) Agriculture expansion (l)	Kajiado, Narok
	Forestlands converted to settlements and other lands	15,005	10,459	16,139	7,599	3,075	Infrastructure (l)	NB. This can be associated with mapping of other lands and not deforestation
	Forestlands converted to wetlands	5,694	6,804	6,089	6,548	1,571	Agricultural expansion areas and irrigation schemes (l)	Garissa, West Pokot, Turkana, Baringo
Public plantations	Plantations converted to croplands	2002-2006	2006-2010	2010-2014	2014-2018	2,012	Plantation areas through PELIS (l)	Plantation areas a\under PELIS
	Plantations converted to grasslands	4,248	4,178	5,889	17,880	2,160	Failure of replanting after harvest	Plantation areas a\under PELIS

Level of significance: l = High, l Moderate, l = Low

Table 3 Annual transitions of forest degradation and key drivers

Forest strata	Area (ha/yr) of Forest Degradation					Key drivers of forest degradation	Counties/regions of occurrence
	2002-2006	2006-2010	2010-2014	2014-2018	Average		
Montane & Western Rain Forest	29,655	16,622	19,108	20,461	21,461	Wood extraction for timber, poles and fuelwood (l) Livestock grazing (l) Wildlife damage, pests and diseases (l)	Mau forests, Mt Kenya, Aberdares, Mt Kulal, Mt Marsabit and Mt Elgon, Mt Nyiru Forest Reserve (Samburu County) and Mt Kulal Forest (Marsabit County)
Coastal & Mangrove Forest	9,168	7,634	5,874	22,830	11,377	Wood extraction for timber, poles and fuelwood (l)	Mombasa, Kwale, Kilifi and Malindi
Dryland Forest	18,689	21,016	24,572	43,316	26,898	Livestock grazing (l)	Laikipia County, Samburu County, Narok County, Kitui, Makueni and Kajiado County
Total	**57,512**	**45,272**	**49,555**	**86,607**	**59,736**		

Level of significance: l = High, l = Moderate , l = Low

1.1.1. Indirect (underlying) drivers of deforestation

The following categories have been used to discuss indirect drivers of deforestation and forest degradation: demographic, economic, policy and legal, institutional, political, infrastructure, technology, cultural, insecurity and natural factors.

2.1.1 Demographic factors:

A projection of Kenya's population indicates steady growth with very high population growth rate of 4% in 1980s, which has reduced to 2.3% to date. With an exponential increase since the 1950s (Figure 5) it is anticipated to reach 66 million by 2030. About 70% of the population lives in rural areas, and are highly dependent on natural resources for livelihoods through agriculture, farming and livestock. The increase in population and economic development increases demand for wood and puts pressure on natural resources. The MEWNR (2012) report indicates that wood demand in Kenya was 41.7 million m^3 against a supply of 31.4 million m^3 resulting in a deficit of 10.3 million m^3 which is projected to increase to 15 million m^3 by 2032.

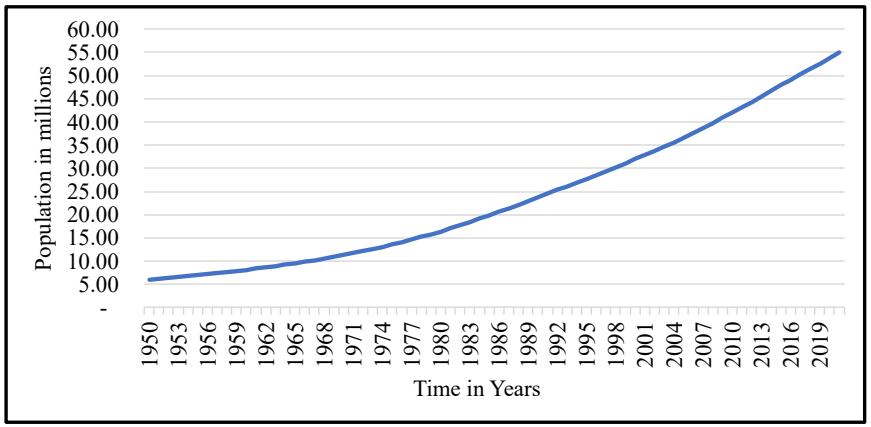


Figure 5: Kenya's population trend 1950 -2020 (Source FAOSTAT)

2.1.1 Economic factors:

Kenya is a lower–middle–income country with an estimated national GDP of US 82 billion in 2017. It aspires to be a *'newly industrialized, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment.'* The country's relatively stable macroeconomic situation has helped the economy grow by an average of 5% annually over the last decade. In the long-term, the GDP annual growth rate is projected to trend around 6-7% post COVID-19 and this is likely to increase demand on forest products to support industries, infrastructure and construction.

Increase in commodity prices such as charcoal demonstrates its increased demand by the growing urban populations particularly around urban centres (e.g., Nairobi, Nakuru and Mombasa). This has motivated people to venture into charcoal business.

2.1.1 Policy and legal factors:

Inadequate enforcement of policies and laws has been identified as an indirect driver of deforestation. Although there are clear provisions on enforcement, including community participation, communities rarely take up the enforcement role, leaving enforcement's responsibility on the limited human resource in government agencies. Moreover, traditional enforcement regulations are gradually eroded in community forests as communities take up modern livelihoods.

2.1.1 Institutional factors:

Weak institutional presence, which generally translates into weak law enforcement, also contributes to forest degradation and deforestation. For example, a GoK led "Review of Governance of the Forest Sector in Kenya" undertaken by LTS in 2016 identified institutional capacity gaps within Ministry of Environment and Forestry (ME&F), Kenya Water Tower Agency (KWTA), KFS, Kenya Forestry Research Institute (KEFRI), Kenya Wildlife Service (KWS), County Governments (CGs), and Community Forest Associations (CFAs).

2.1.1 Political factors:

Historical political influences have led to deforestation and forest degradation of important ecosystems. For example, the Mau forest complex Task Force of 2008 noted that land allocation was not made per the stated intentions to settle the forest dwelling Ogiek Communities. This was largely influenced by political interference.

Political influence mainly by local politicians has also been a key factor that frustrates government efforts to curb encroachments and illegal harvesting on forest lands. In addition, local politicians tend to resist eviction of illegal forest setters, thus exacerbating deforestation and forest degradation of some of the affected forests (Ministry of Forestry and Wildlife, 2013).

2.1.1 Technology factors

This is mostly associated with inefficient technologies (at industry and household level) that contribute to large wood biomass consumption. For example, the "Furniture Industry in Kenya Report[8]" notes that timber in Kenya is not utilized efficiently due to lack of skills and equipment. At the industrial level, timber harvesting and processing are inefficient with 75% of saw millers still using circular saws whose recovery ratio is 30%. In addition, more than 99% of charcoal is produced in traditional earth kilns, which have an efficiency of between 10-15% depending on size of kiln, tree species, wood preparation techniques, moisture and operator skill (LTS International, 2016).

2.1.1 Cultural factors

In the rangelands, forests are traditionally considered dry season grazing areas. This has been a major threat to forests such as Leroghi, Mathews Range, Ndottos, Mt Kulal, Marsabit and Mukogodo and the associated riverine forests of the rangelands. This is compounded also by the culture of keeping large herds of cattle, a general attitude that attaches low value to forests as is the case in these counties and parts of the Mau Forest Complex, Mt. Elgon and Cherangany forests. Livestock grazing communities also have a tradition of setting fires in the forest to improve pasture and kill ticks (Kinyanjui, 2009).

2.1.1 Insecurity

Insecurity is also an underlying factor in the northern rangelands. In places like Baragoi, people have been forced to live in the adjacent Leroghi forest to hide from bandits and other perennial attackers, aggravating forest degradation (FAO, 2020). In Mt. Elgon Forest, cross-border insecurity due to a porous border has led to illegal trade in forest and wildlife products.

8 https://www.industrialization.go.ke/index.php/downloads/323-furniture-industry-in-kenya-diagnosis-strategy-and-action-plan

Table 4 provides case studies of drivers of deforestation and their underlying causes.

Table 4: Some case studies of drivers of deforestation and forest degradation in selected Counties[9][10]

Area	Driver	Underlying cause
Samburu and Marsabit County (Mathews Range, Nyiru, Ndottos, Leroghi forests)	. Poaching of trees especially *J. procera*; *O. lanceolata*) . Forest fires from illegal honey harvesting . Subsistence and commercial charcoal production . Illegal grazing in the forest . Overgrazing and overstocking . Illegal settlements in the forest	. Population increase and urbanization associated with increased demand for timber . Insecurity: traditional boundary disputes between tribes and cattle rustling . Limited law enforcement and poor environmental awareness . Weak forest governance structures and low capacity . Insecurity outside the forest
Laikipia/Meru County (Ngare Ndare, Mukogodo Forests)	. Commercial flower farms . Charcoal Burning . Overgrazing in the forest.	. Over stocking . Insecurity and invasions
Mau conservancy	. Overgrazing of livestock . Unsustainable extraction of wood for use as timber, posts, fuelwood and charcoal . Encroachment for agriculture and settlements . Fires for grazing . Infrastructure development – construction of roads, dams and pipelines . Conversion to agriculture and grasslands	. Population growth leading to increased demand for forest products and land . Poverty and a lack of income opportunities . Limited resources and weak institutional structures to control access to and use of forests . Cultural norms that encourage high livestock numbers and give low value to forests . Political interference

Barriers to address deforestation and forest degradation

Based on the analysis of drivers of change described above, a summary of the barriers underpinning deforestation and forest degradation is provided in Table 5. They include policy, governance, technical, demographic, economic and finance barriers.

9 Smith G., Gitari E., and Adkins B., 2017. Northern Kenya REDD+ Feasibility Report.

10 IDH, 2019. Field-level Baseline and Progress Research on IDH Landscape Programme in the South West Mau Forest, Kenya

Table 5: Barriers underpinning deforestation and forest degradation

Category	Description
Policy	**Sustainable forestry** . Inadequate provisions on forest certification, chain of custody, import and export, timber trading, Public private partnerships (PPP) and benefit sharing mechanism . inadequate framework to optimally operationalize the FCMA 2016 rules . Inadequate policy incentives to promote afforestation and reforestation efforts . Inadequate regulatory policy framework for management of forest resources (e.g., between national and the county governments) . Inadequate incentives for commercial forestry investment . Inadequate implementation of policies to promote the use of alternative and sustainable fuels / lack of disincentives for the continued use of unsustainable fuel products . Limited coordination between forest, agriculture and energy policies implementation processes . Inadequate operationalization of PPP for forest investments
	Land use planning . Inadequate land-use planning for long term investments at local and national level (designation of land for commercial forestry, agriculture/agroforestry, conservation, urban expansion etc.) . Inadequate mainstreaming of land use plans in local development programmes (e.g., County Integrated Development Plans (CIDPs)) . Outdated physical plans

Category	Description
Governance	**Land and forest governance** . Insecure land tenure which limits investment in forest operations (e.g., the dryland community forests) . Ineffective planning of sustainable forest management (silviculture, in-forest access, etc.) . Inadequate human resources for protection of forests (forest management) in some government agencies . Inadequate management that results to poor quality forest produce . Inadequate accreditation of institutions . Inefficient accountability and traceability in the forest product value chains
	Quality of forest administration . Inadequate ethical standards for forestry professionals . Inadequate coordination between institutions charged with management of forestry resources . Inadequate incentives to develop agroforestry practices and integrated livestock and agriculture practices . Inadequate governance of forestry resources in the County . Weak community structures for efficient and effective engagement with state agencies to support forest management /conservation . Pervasive corruption in the forestry sector . Inadequate regulation of markets for forest products . Competition among institutions in the sector and overlap of mandates . Unclear local standards to support sustainable forest management . Limited knowledge among key stakeholders in management of forests resulting to low valuation of forests . Inadequate public private partnership framework for engaging private sector and communities . Inadequate benefits sharing arrangement . Limited transparency in decision making . Limited participation of stakeholders . Inadequate infrastructure for sharing of forest information

Category	Description
Technical	**Planning and coordination** . Inadequate infrastructure for data harmonisation across agencies (national and county level) . Inadequate infrastructure for data repository and coordination of data sharing . Ineffective methods for the promotion of sustainable forestry product value chains.
	Technology . Inefficiency in harvesting and wood processing activities . Poor understanding of alternative fuels and technologies to reduce reliance of fuelwood . Use of inefficient energy conversion technologies such as traditional earth kilns during charcoal production . Limited access to monitoring technologies and expertise especially tree cover . Inadequate standards in forest certification . Outdated standards for forestry manufacturing equipment
	Capacity . Limited capacities of Community Forests Associations (CFAs), charcoal producers' associations (CPAs) and other similar bodies to support communities implementing sustainable forestry practices . Limited skills and knowledge within silviculture, plantation management and harvesting, sawmilling/wood processing . Unskilled sawmill operators and/or inadequate supervision . Inadequate understanding of the impact of deforestation and degradation (local scale, but also at a national scale) . Low productivity- poor access to improved germplasm and quality planting material . Inadequate capacity of County governments to take up devolved forestry functions

Category	Description
Economic	**Investments** . Limited public financing for affordable, alternative deforestation-free energies . High cost of forest plantations establishment and maintenance in absence of financial incentives. . Lower return on investment of commercial forestry in comparison with other land-use activities. . High interest rates on loans vs. long-term returns in forestry investments . Disorganised marketing systems and value addition for tree products . Inadequate appreciation of the role of forests to the national economy . Limited appreciation of value and valuation of forests at the national economic accounting level . Under valuation of forest resources . Inadequate rewarding system for forest conservation activities . Limited climate-related investment in the forest sector compared to needs.
	Incentives . Inadequate incentives for sustainable forestry management, afforestation-reforestation and conservation activities . Tax burden on efficient technologies limiting their uptake (e.g., taxation of clean cook stoves and fuels by manufacturer (as per the Finance Act, 2020) . Poor infrastructure, including in-forest roads, and low-performing poorly maintained machinery and equipment . High reliance on cheap, easily accessible wood fuel products (fuelwood/ charcoal) combined with limited access to alternative fuels. . High equipment purchases costs partly due to high taxation on imported equipment/machinery. . Inadequate plough back systems (e.g., payment for ecosystem services)
Financing	. Inadequate financing mechanisms for forestry related investments . Limited coordination of financing instruments and mechanisms . Inadequate budgetary allocation from national treasury . Inadequate instruments for attracting private sector participation in commercial forestry . Inadequate framework for anchoring nested projects to the national REDD+ framework . Inadequate framework to account for private sector contribution to the national forest cover targets .

3. CHAPTER THREE: EXISTING POLICY, LAWS AND REGULATORY FRAMEWORK FOR REDD+ IMPLEMENTATION

Introduction

This section provides a preliminary review of existing policies, legislation, and regulations (PLRs) underpinning Kenya's preparedness for REDD+. It seeks to explore the appropriateness of existing PLR frameworks, possible gaps, overlaps and challenges that must be addressed to enable Kenya to achieve its REDD+ goals. Countries seeking to implement REDD+ need to address governance issues likely to impede REDD+ implementation. These legal frameworks could include reviewing existing laws and/or requiring new laws, policies, and regulations.

Legal definition of forests

Definition of forests and other forest-related concepts in national laws, regulations, and policies is central to the effective operationalization of REDD+. The definition of 'forests' provided in Kenya's Forest Reference Level is '*an area with a minimum 15% canopy cover, minimum land area of 0.5 ha and minimum height of 2 meters*'. This definition is within the IPCC guidelines on reporting national GHG inventories (IPCC, 2006). However, the Forests Conservation and Management Act, 2016 only provides a definition covering the area of 0.5ha.

Forest and land governance

Land is the resource base within which forestry is undertaken, and therefore land and forest governance is important in REDD+ implementation. The Constitution of Kenya, 2010 defines three types of land; public, private and community and identifies roles and responsibilities of different institutions in land governance. Under Article 62 (1) (g), public land includes government forests. Under Article 63 (2) (d) (i), community land is defined to include land lawfully held, managed, or used by specific communities held under either customary; freehold or leasehold tenure. Finally, private land can be held either as freehold or leasehold.

Article 60 articulates the principles of the land policy and holds that land should be "held, used and managed in a manner that is equitable, efficient, productive and sustainable. Principles of land policy include: (1) security of land rights; (2) sustainable and productive management of land resources; and (3) sound conservation and protection of ecologically sensitive areas. In chapter 5 of the Kenya Constitution 2010, Article 66, gives the State the authority to regulate "the use of any land, or any interest in or right over any land, in the interest of defense, public safety, public order, public morality, public health, or land use planning."

As described in the introductory chapter and in terms of forest governance, many institutions and organisations are directly involved in managing and conserving forests in Kenya.

1. The Kenya Forest Service is the key institution mandated to manage and conserve forests under the Forests Conservation and Management Act, 2016.
2. The Kenya wildlife Service is mandated to manage vast areas of national parks and game reserves containing the fauna component and a rich flora comprising forests and allied vegetation.
3. The County Governments are responsible for management of devolved forestry functions including forests held in trust by county governments (former trust-land forests)
4. Communities in rangelands own and manage vast areas which support forests, but do not comprise forests held in trust by County governments

5. The private sector entities (saw milling companies, tea industry and individual tree growers) small scale farmers, and other Ministries, Departments and Agencies (MDAs) play additional roles in forest sector governance.

The Forest Conservation and Management Act 2016 provides a variety of options for the management of public forests which are important in REDD+ including:

1. **Concession Agreements.** These are long term agreements issued by KFS to manage a specified public forest area at a price determined after forest valuation and bidding. This grants an individual or organisation a right of use through a long-term contract, for commercial forest management and utilisation. Concession agreements done in Kibwezi Forest provide lessons for REDD+ implementation in Kenya.
2. **Joint Management Agreements.** In this case, a private forest owner, KFS or the County Department responsible for forestry agrees to enter into partnership with other persons for the joint management of a specified forest area. The partnership would specify the rights and obligations of each Party while setting out the methods of sharing the costs and benefits accruing from that forest.
3. **Participatory Forest Management.** This enables community participation in the management and conservation of forests through Community Forest Associations (CFAs). The FCMA, 2016 allows CFAs to enter into management agreements with KFS. Section 47 (1) confers CFAs the following forest user rights: collection of medicinal herbs, harvesting of honey, harvesting of timber or fuel wood, grass harvesting and grazing, collection of forest products for community-based industries, ecotourism and recreational activities, scientific and education activities, plantation establishment through non-resident cultivation, contracts to carry out silvicultural operations and development of community wood and non-wood forest-based industries.

3.1. Forest, land and tree tenure

Clearly defined and secure tenure rights for land, forests, and trees are critical enabling conditions for REDD+ implementation. The following land and tenure-based regulations are important for REDD+ implementation.

The National Land Policy (2019) supports implementation of the **The Land Act, 2012**. The Act provides for the different forms of land tenure in Kenya. Land tenure is the acts, right or period of holding land. The forms are freehold, leasehold, customary land rights and such forms of partial interests as may be defined under the Act and other law, including but not limited to easements.
Freehold: This means unlimited right to use and dispose of land in perpetuity subject to the rights of others and the regulatory powers of the national government, county government and other relevant state. It gives the owner absolute ownership of the land for life. This means descendants can succeed the owner as long as the family lineage exists.

Leasehold: This is the interest in land for a specific period subject to a fee or rent payment to the grantor. Payment of rates is made to the respective governments for services rendered.

As discussed above, Kenya's forest ownership falls in three categories; public, private and community with tree ownership and user rights tied to each of these classifications. Forest ownership and tree user rights in private land are well protected and defined in the Kenya Constitution 2010, the Registered Land Act, 2012 the FCMA, 2016 and the draft National Forest policy 2021. Public land is vested in and held by the national government in trust for the people of Kenya and is administered on their behalf by the National Land Commission (NLC). Trees situated in public land are state forests under Article 62(1)(g) of the Constitution. There is also public land that is not alienated and is recognized as community land. The NLC and respective county governments manage community land. Communities can manage community forests and own

them 100% if registered as community forests within the NLC, and this would give them 100% rights in ownership. There is no private ownership of the resources/land in areas where communities have not registered the land. This comprises much land holding in Kenya especially in northern and coastal Kenya.

Management of the former trust land forests is vested in the County governments. To enhance their protection, conservation and management, support to county governments is recommended to develop policies, legislation and forest management plans. These will enable counties and communities around these forest resources to plan and ensure their sustainable management.

Enabling PLR framework

Kenya has a supportive framework of Polices, Legislation and Regulations (PLRs) for REDD+ implementation as shown in Table 6 below

Table 6: Summary of Kenya's supportive PLR framework for REDD+ implementation

Focus	PLRs	Supportive framework
Enhancement of carbon stocks	National Forestry Programme (NFP, 2016)	Provides an overall framework for supporting tree planting in the variety of tenure and climatic conditions
	Agroforestry strategy (2021)	Promotes integration of trees in agricultural landscapes to enhance their biomass/carbon content
	The National Forest Policy (2021)	Seeks to anchor in law, the 10% forest cover target through afforestation and reforestation programmes on all denuded and degraded forest lands and areas outside forests
	Kenya's national strategy for increasing forest cover (2015 –2022)	Recognizes that for the country to attain 10% forest cover by 2030, a total of 2 million ha of additional forests is required and identifies the roadmap to reach this target.
	The Green Economy Strategy and Implementation Plan (GESIP, 2016 – 2030)	Seeks to consolidate scale up and embed green growth initiatives in national development goals including sustainable natural resources restoration towards 10% tree cover target
	The National Climate Change Action Plan (NCCAP, 2018-2022)	Has a priority area as increasing tree cover to 10% of total land area through rehabilitating degraded lands and rangelands.
Incentives to enhance forest cover and carbon stocks	The Forest Conservation and Management Act (2016)	Makes provision (Section 54) for tax and fiscal incentives proposed to increase investments in forest land use and forest resource utilization
	National Forestry Programme (NFP, 2016)	Proposes incentivizing business in the forest sector through development of forest business models/schemes/investment packages, establishment of cost/benefit sharing schemes that allow implementation of programmes, establishment forest insurance schemes and tapping into the existing government financing schemes
	The Finance Act (2019)	Amended the Income Tax Act to exempt from withholding tax, interest income accruing from bonds, notes or other similar securities used to raise funds for infrastructure, projects and assets defined under Green Bonds Standards to include REDD+ projects
	The Climate Change Act (2016)	Provides incentives for promotion of climate change initiatives, and is therefore relevant to REDD+
	Climate Change (Duties and Incentives) Regulations (2021)	Provides for opportunities to develop incentives to private entities promoting climate change initiatives. However, specific incentives have not been listed.
	The National Land Use Policy (2017)	The policy states that *"to address the low vegetation cover with other competing land uses, the government shall ... develop a framework for incentives."*
	The National Climate Change Response Strategy (NCCRS, 2010)	Recommends tax incentives and favorable import tariffs on emission reducing technologies;
	The Environment and Management and Conservation Act (EMCA, 1999)	Allows the Minister of Finance to create levies and taxes to promote sustainable management of forests;
	Forest incentives and benefit sharing guidelines (2016)	Provides guidelines for incentivizing forest conservation by communities and the sharing of associated benefits

Focus	PLRs	Supportive framework
Private sector participation in carbon investments	The Draft Green Fiscal Incentive Framework Policy (2021)	Aims at providing fiscal incentives (e.g., covering taxation exemptions) to the private sector investing in green projects and programmes.
	The National Policy on Carbon Finance and Emissions Trading	Guides set up a legal, regulatory, and institutional framework for developing and managing carbon trading in Kenya. This creates a carbon trade sector which will tap into international climate change finance and foster involvement of the private sector in carbon investment and trading.
	The National Climate Finance Policy (2016)	Seeks to mobilize and manage carbon finance, encourage the generation and sale of carbon credits, and potentially put a price on carbon and establish an emissions trading system.
	Foreign investment protection Act (2009)	Allows repatriation of profits, hence is an incentive for Foreign Direct Investments
	The Forest Conservation and Management Act (2016)	Provides for long term concessions to the private sector which is an opportunity to set up carbon trading projects
Policy and legal frameworks and Indigenous People (IPs)	Constitution of Kenya 2010	• Defines vulnerable and marginalized minorities consistent with UN Declaration on the Rights of Indigenous Peoples (UNDRIP). • Promotes and protects indigenous languages (Article 7) and recognizes marginalized communities' cultural and intellectual rights (Article 11). • Chapter Four contains the Bill of Rights that makes international law a key component of the laws of Kenya and guarantees protection of minorities and marginalized groups including freedom of expression, the media, and access to information and association. • Supports affirmative action programs at all levels • Supports equitable access to land; security of land rights; and gender equity in law, customs and practices related to land and property in land
	The National Land Policy (2009)	Lists land issues requiring special intervention including: (a) historical injustices; (b) pastoral land issues; (c) coastal region land issues; (d) land rights of minority and marginalized groups; and (e) land rights of women.

Focus	PLRs	Supportive framework
Carbon rights and benefits sharing	The Constitution of Kenya (2010)	Article 260 defines property to include "any vested or contingent right to, or interest in or arising from land, or permanent fixtures on, or improvements to land including natural resources like forests. This assumes the carbon contained is forests is included though not defined Article 69 (a) promotes sustainable exploitation, utilization, management and conservation of the environment and natural resources and ensures equitable sharing of the accruing benefits.
	Land Registration Act (2012)	Requires registration of Community land and issuing of a certificate of title to owners, and upholds their rights or interest, including light, air, water, etc.
	The National Land Commission (NLC) Act (2012)	Allows the National Land Commission to make recommendations on resettlement of people on alternative land, giving them all right to the new land.
	The Land Act (2012)	Mandates the National Land Commission to provide: (i) measures to facilitate the access, use and co-management of forests, water and other resources by communities who have customary rights to these resources; (ii) develop procedures on the involvement of stakeholders in management of land-based natural resources; and (iii) provide rules and regulations to ensure benefit-sharing to affected communities.
	The Community Land Act (2016)	Vests community absolute ownership of registered community land, while section 29 confers every community member on this land with equal rights and benefits.
	The National Land Use Policy (2017)	Supports elimination of discrimination and respect for human rights in land use and promotes protection of land rights and establishment of suitable methods for defining and registering land rights in pastoral areas integrating rights of women
	The National Land Policy (2009)	Provides for equal recognition and enforcement of land rights arising under all tenure systems and non-discrimination in ownership of, and access to land under all tenure systems. It facilitates the commercialization of land rights subject to equity, sustainability and public policy considerations. It also provides for the protection of land rights of vulnerable individuals and groups from unjust and illegal expropriation
	National Forest Policy (2021)	Calls on the Government to 'clearly define holders of legal rights to forest ecosystems and related benefits including those generated by REDD+ in public, communal and private forests. Provides for development and implementation of an equitable benefit sharing scheme in the forest sector.

Focus	PLRs	Supportive framework
Carbon rights and benefits sharing	Forest Conservation and Management Act (2016)	Recognizes different forms of forest ownership and the benefits of forests for carbon sequestration. For example, Community Forest Associations (CFAs) have been granted permission to manage or conserve forests under management agreements. Mandates KFS to establish and implement benefit sharing arrangements and defines "benefits" as quantifiable and non-quantifiable goods and services provided by forest ecosystems
	Forests (Participation in Sustainable Forest Management) Rules (2009)	The Rules apply to participation of the private sector and forest communities in sustainable management of State forests where KFS issues authorizations for forestry activities. Such authorization is in the form of a permit, timber license, special-use license, contract, joint management agreement or concession agreement of a specified forest area. The non-state actors however do not own the resource but only support in its conservation
	National Resources (Benefits Sharing) Bill (2018)	Defines "benefit sharing" as sharing any benefits arising from exploiting natural resources fairly and equitably. It proposes that each County should establish County Benefit Sharing Committees. It is recommended that benefits accruing from forestry resources / renewable resources should not be accounted in similar way as in the oil and gas sector.
Grievance and redress mechanisms concerning REDD+	Commission on Administrative Justice Act (2011)	Mandates the Commission on Administrative Justice (CAJ) also called Ombudsman to address all forms of maladministration, promote good governance and efficient service delivery in the public sector by enforcing the right to fair administrative action.
	Environment and Land Court Act (2011)	Has established a superior court that hears and determines disputes relating to the environment and land.
Support for climate finance	National Climate Change Framework Policy (2018)	Aims at ensuring the integration of climate change considerations into planning, budgeting, implementation, and decision-making at the National and County levels, and across all sectors.
	Climate Change Act (2016)	Establishes the Climate Change Fund, offering a financing mechanism for priority action and interventions
	National Climate Finance Policy (2016)	Seeks to mobilize and manage carbon finance, and lays out a guiding framework to enhance national financing systems and capacity to access, manage and report carbon finance in the country, encourage the generation and sale of carbon credits, and potentially put a price on carbon and establish an emissions trading system

Focus	PLRs	Supportive framework
Support for climate finance	County Governments Climate Change Fund Regulations and Acts	Aligns Finance Acts to county development programmes (e.g., CIDP) to facilitate resource mobilization and accounting
	National Policy on Carbon Finance and Emissions Trading	Creates a carbon trade sector that will tap into international climate change finance and foster private sector involvement in carbon investment and trading.
	Forest Conservation and Management Act (2016)	Supports long term concessions which allows investments in the forestry sector

Institutional mandates and capacity needs of key actors in the forest sector

The wider forestry sector within which the REDD+ programme will be implemented has many stakeholders with specific mandates relevant for REDD+. Table 7 presents the list of mandated institutions within government ministries that have lead responsibilities for REDD+. The front runners are the Ministry in charge of forestry and the Kenya Forest Service. Table 8 presents other participants that are also relevant for REDD+. These include communities, private sector and groups of investors. Finally, table 9 provides an analysis of the capacity needs, capacity gaps and measures needed to support the implementation of the Strategy.

Table 7: Primary actors and their mandates in the forest sector

Sector	Actors	Roles and responsibilities in forest cover enhancement
Forestry	Ministry of Environment and Forestry	Provides policy guidance and oversight in governance of environment and natural resources for livelihoods and economic prosperity of Kenyans.
	Kenya Forest Service	Enhances development, conservation and management of Kenya's forest resources in public forests, and assists County Governments to develop and manage forest resources on community and private lands for the equitable benefit of present and future generations.
	County Governments	Tasked with the management of the devolved forestry functions by the National Government that includes forest advisory and extension services, creation of an enabling environment for forest enterprise development, and funding of SMF models, especially on community and county government lands.
	Kenya Wildlife Service (KWS)	Charged with conservation, management and utilization of all types of wildlife in national parks, national reserves and other wildlife protected areas such as sanctuaries.
	Kenya Water Towers Agency (KWTA)	Coordinates the protection, rehabilitation, conservation and management of all water towers in the country.
	Kenya Forestry Research Institute (KEFRI)	Provides information on species to be planted in different agro-ecological zones, promotes best practices in planting, tending and value addition of plantations and woodlots, and procurement of local and imported seed
	National Treasury	Mandated to formulate, evaluate and promote economic and financial policies that facilitate social and economic development in conjunction with other national government entities. This includes coordinating finance for climate change activities
	National Museums of Kenya (NMK)	Charged with the protection of forests of cultural and biodiversity significance as national monuments such as Kayas in the Kenya Coast
	National Environment Management Authority (NEMA)	Is the principal instrument of the government for the implementation of all policies related to the environment. Ensures that harvesting plantations and woodlots do not damage the environment by conducting Environmental Impact Assessments (EIA) for harvesting and afforestation projects.

Sector	Actors	Roles and responsibilities in forest cover enhancement
Agriculture	Ministry of Agriculture, Livestock and Fisheries	Charged with the formulation, implementation and monitoring of agricultural legislations, regulations and policies including the Agriculture (Farm Forestry) Rules 2009.
Energy	Ministry of Energy and Petroleum	Charged with the development of energy resources for national development and creation of an enabling environment for efficient operation and growth of the energy sector and promotion and development of renewable Energy policies.
Lands	National Land Commission, Survey of Kenya,	Charged with the development and implementation of policies regarding land ownership and tenure rights
Regional authorities	The Nyayo Tea Zone Development Corporation (NTZDC)	Charged with the management of the 100-meter tea buffer zone around some gazetted forests with a view of protecting these forests from human encroachment.

Table 8: Stakeholder institutions in respect to land type

Actors	Roles and responsibilities in forest cover enhancement	Focal land types		
		Public	Private	Community
Regional development authorities	Plan and coordinate the implementation of development projects (including forestry) in six river basins in Kenya		x	x
Wildlife Conservancies	Conserve wildlife and associated forests with commercial objectives of enhancing tourism		x	
Indigenous Peoples and Local Communities	Comprise organized community groups that participate in forest conservation and management at grassroots	x		x
Tree Growers Associations (TGAs)	Champion the needs of small holding farm forest enterprises, promote tree planting and links tree growers to markets.		x	
NGOs	Provide resources to small and medium scale tree growers.	x	x	x
Research and educational Institutions	Promote research on forests and trees including best management systems.		x	x
Large-scale agricultural enterprises:	Establish tree plantations for fuelwood to run their operations (e.g., processing of tea and tobacco) but to some extent also poles and wood to processing industry.		x	
Kenya Private sector alliance	Support rights of private sector operating along the entire forest value chain from sawmillers advocating for sustainable forestry plantation development in Kenya to manufactures	x	x	
Social impact investors (e.g., KOMAZA, Better Globe and One Acre Fund)	Charged with the expansion of plantations through small scale tree growing.		x	
Large scale corporates	Provide support to the forest sector to address deforestation and forest degradation, afforestation and reforestation (e.g., Safaricom, EABL etc.)	x	x	x

Actors	Roles and responsibilities in forest cover enhancement	Focal land types		
		Public	Private	Community
International Funding Agencies	Provide support to the forest sector to address deforestation and forest degradation, afforestation and reforestation	x	x	x
Private tree nursery operators	Support mass production of seedlings and germplasm for afforestation and landscape restoration activities		x	x
Training and Educational institutions	Offer training, education and research needs in the fields of forestry and natural resources	x	x	x
Ministry of Education	Charged with education and research services under basic education and higher education	X	x	x
Ministry of Agriculture and livestock	Charged with design and implementation of agricultural policies	x	x	x
Ministry of Devolution	Supports devolution of REDD+ activities	X	x	x
Judiciary	Supports resolutions in Grievance Redress mechanisms	X		
Independent commissions (KNHRC, NGEC etc.)	Carry out specific responsibilities that support attainment of social safeguards, including Grievances redress	X		x

Table 9: Institutional capacity assessment for REDD+ and possible mitigation measures

Institution	Key functions within REDD+ institutional framework	Capacity constraints	Proposed mitigation measures
Government Ministries, Departments and Agencies			
Ministry of Environment and Forestry	Provides policy guidance and oversight in governance of environment and natural resources; oversees climate change coordination and REDD+ coordination	Inadequate capacity to formulate and coordinate policy implementation for REDD+	Strengthen capacity for coordination towards REDD+ implementation
KFS	Conservation and management of Kenya's forest resource base in all public forests, and supports County Governments to develop and manage forest resources on community and private lands.	Inadequate capacity to effectively implement the mandate	Capacity development for KFS to implement its mandate
KWS	Charged with conservation, management and utilisation of all types of wildlife in national parks, national reserves and other wildlife protected areas such as sanctuaries	Limited forestry technical staff	Capacity development concerning REDD+, especially in forested dryland forests
NEMA	Environmental compliance	Inadequate capacity to enforce environmental compliance in relation to REDD+	Enhance capacity for enhancing environmental compliance, including tracking Environmental and social safeguards
County Governments and Council of Governors (CoG)	Implementation of devolved functions; responsibilities of management of community forests and by extension coordination of REDD+ in community forests	Limited capacity (human and financial) to take on their new devolved forestry mandate	Targeted capacity building to support implementation of devolved functions and law enforcement
KWTA	Coordinates the protection, rehabilitation, conservation and management of all water towers in the country	Inadequate human capacity and limited strengths to coordinate stakeholders	Institutional coordination framework with responsibilities and tasks that allow KWTA to perform its "coordination" role

Institution	Key functions within REDD+ institutional framework	Capacity constraints	Proposed mitigation measures
NMK	Responsible for the surveying and gazetting of forests of cultural and biodiversity significance as national monuments including Kayas in the Kenya Coast.	Low funding levels, low staff morale, and weak linkages with other institutions challenges	Capacity enhancement, improved coordination between institutions
KEFRI	Conducts research and provides information and technologies for sustainable development of forestry and allied natural resources for social development	Inadequate technical staff to implement research in REDD+ activities	Capacity enhancement, improved coordination with mandated institutions
Ministry of Energy and Petroleum	Charged with among promotion and development of renewable Energy policies.	Limited capacity for inter-institutional coordination	Strengthen institutional linkages with other institutions involved in REDD+
Ministry of Agriculture, Livestock and Fisheries	Responsible for implementing and monitoring agricultural legislations, regulations, and policies, including the agroforestry strategy.	Has limited capacity to implement the agroforestry	Strengthen institutional linkages with other institutions involved in REDD+
Independent commissions	Carry out roles that relate to REDD+	Inadequate capacity to support REDD+ implementation based on their mandates	Enhance capacity to address various issues relating to REDD+ in relation to their mandates
Private sector entities /NGOs			
Private sector interested in developing carbon / REDD+ programmes	Investing in REDD+ activities	Complexities and costs of REDD+ project establishment may exceed anticipated benefits. Limited capacity to develop viable projects.	Capacity building of organisations on carbon project development and market requirements; carbon financing arrangements with private sector equities and grant making organisations
Community organisations			
Community Forest Associations (CFAs)	Involved in co-management of forests with KFS through Management Agreements (usually of 5 renewable years) to implement Participatory Forest Management Plans (PFMPs)	Limited capacity to enforce the FCMA 2016, implement forest management plans and engage in enterprise development.	Enhance social inclusion and address institutional challenges; capacity development in entrepreneurship; and widening CFAs user rights in utilising forestry resources.

Institution	Key functions within REDD+ institutional framework	Capacity constraints	Proposed mitigation measures
Indigenous peoples organizations	Spearhead the rights of the marginalised groups especially application of FPIC in all REDD+ projects	Unclear tenure on forestlands. Changing lifestyles reduce effectiveness of cultural conservation measures	Clarify mechanisms for participation of indigenous communities in REDD+
Charcoal producers/Charcoal Producers Associations (CPAs)	Charcoal regulations under the Forests (Charcoal Rules, 2009) and facilitation of activities that ensure the sustainability of charcoal production.	Weak governance structures which limit their capacity to implement the Charcoal Rules adequately	Review the Charcoal Rules to address challenges encountered in implementation; application of best practices to improve earth charcoal kilns / adopt efficient technologies.

4. CHAPTER FOUR – PROPOSED STRATEGIC OPTIONS FOR REDD+ IMPLEMENTATION

Introduction

Based on the previous discussion on drivers, barriers to forest conservation and sustainable management, the existing framework of Policies, Laws and Regulations, and existing institutional mandates, a selection of ideal strategic options for REDD+ implementation were made. The highly consultative process of selecting strategic options is built on selection criteria, as illustrated in Table 10.

Table 10: Criteria for selection of strategic options

Criteria	Description
Directly related to Kenya's identified REDD+ activities	Kenya has identified 4 REDD+ activities (Table 1). Strategic options with activities that link directly to the achievement of these activities were considered ideal
Addressing drivers of deforestation and forest degradation	A review of drivers of deforestation and forest degradation provides a platform on which actions to revert the effects of the drivers can be based
Anchored in ongoing conservation activities	Kenya has identified various conservation activities in the forest sector, some of which can easily be translated into REDD+ activities. Such low hanging fruits include Kenya's commitment to landscape restoration and large-scale afforestation programmes
Resulting in broad stakeholders' involvement and associated benefits	REDD+ is an inclusive process that seeks to include a variety of stakeholders in the forest sector. Activities that considered participation and enhancement of benefits of communities and marginalized groups and value addition for forest products were prioritized.
Multiple benefit activities	REDD+ being a forest sector programme, activities were identified to benefit the wider forest sector objectives in Kenya, such as water catchment, stabilization of landscapes, biodiversity conservation and wildlife conservation
Resulting in significant GHG emission reductions	REDD+ is anchored on a results-based payment platform. Therefore, selected activities must demonstrate, among others, a significant reduction of emissions to justify results-based payments for the country
Cost-effective measures	Noting limitations associated with implementation processes, activities that can be implemented at lower cost with maximum impact were prioritized.
Clarity of implementation	Strategic options with clear deliverables were preferred. This was done on the basis that such strategic options become policies and measures whose specific mitigation reduction results can be measured under the enhanced transparency framework for National communications and Biennial Transparency Reports

Summary of Strategic Options

Based on the selection criteria described above, Table 11 presents the REDD+ strategic options selected and discussion on their relevance is provided thereafter. The strategic options refer to broad level programmes to support Kenya's efforts to reverse the trend of emissions described in the FRL as equivalent to 52,204,059 tCO2/year and achieve NDC targets for the LULUCF sector. Besides the climate change mitigation component, the options propose climate change adaptation interventions that ensure the broad stakeholders' participation, including communities, the private sector, Government agencies, and the devolved Governments.

Each strategic option has several investment areas to allow identification of investment activities and allocation of responsibilities among the actors, estimation of investment costs and identification of indicators for monitoring progress in the implementation process.

Table 11: Selected Strategic Options, areas of investment and Actions to support investment

Strategic Options	Strategic Investments /investment areas	Actions for investment
1. Scaling up afforestation, reforestation and landscape restoration programmes	1.1. Incentivize tree growing investments on private land.	1.1.1. Develop and implement a commercial forestry strategy 1.1.2. Implement the tree improvement strategy 1.1.3. Create incentives for afforestation and reforestation programmes in private land 1.1.4. Establish tree growers cooperatives/associations in tree growing 1.1.5. Provide platforms for corporates to support large scale CSI/CSR tree growing and management programmes 1.1.6. Develop and implement mechanisms for PPP in REDD+ 1.1.7. Improve germplasm quality and develop mass-production programmes 1.1.8. Develop a system to distribute improved germplasm to relevant stakeholders 1.1.9. Mainstream, youth, women and special needs groups in tree growing programmes 1.1.10. Develop financial instruments that recognize forestry as an asset class for insurance and investment by pension funds
	1.2. Create mechanisms for afforestation in community lands to enhance cultural, environmental and biodiversity benefits	1.2.1. Integrate indigenous knowledge, practice and norms for forest management and conservation 1.2.2. Raise awareness and sensitize IPLC on afforestation and restoration in community lands 1.2.3. Support and enhance community organized groups to manage forests on community lands in line with community land act (2016) 1.2.4. Map out community lands with potential for REDD+ implementation and undertake targeted campaigns for tree growing 1.2.5. Develop and implement integrated livelihood strategies that incorporate trees within community lands 1.2.6. Develop and implement management plans that catalyze sustainable management of community forests with clear guidelines on roles, responsibilities and benefits for all actors
	1.3. Scale-up landscape afforestation and restoration in drylands	1.3.1. Develop tree growing programmes using suitable dryland species 1.3.2. Support mass production of germplasm/propagation material/seedling for suitable dryland species 1.3.3. Develop and implement an integrated system for fire control and management 1.3.4. Develop and implement strategies for the management of invasive species 1.3.5. Develop and disseminate alternatives to land management without burning on grazing areas 1.3.6. Develop and disseminate alternatives to land clearing and charcoal production, including alternative sources of energy 1.3.7. Support the implementation and dissemination of improved livestock grazing management systems 1.3.8. Support the development, access and appropriation of technologies that improve the survival of dryland species
	1.4. Strengthen PES systems	1.4.1. Establish a functional national registry system for carbon transactions 1.4.2. Establish a functional carbon accounting system to monitor national GHG mitigation targets 1.4.3. Clarify definitions of carbon rights and tenure rights to streamline benefits sharing mechanism for all stakeholders 1.4.4. Strengthen national and county capacity in PES projects formulation
	1.5. Improve productivity of agricultural lands	1.5.1. Support the effective implementation of the National Agroforestry Strategy 1.5.2. Create mechanisms that support sustainable management of livestock grazing 1.5.3. Support commercial bamboo production and processing 1.5.4. Establish locally relevant financing tools and services to facilitate access to financing by farmers for trees growing 1.5.5. Strengthen tree farmer cooperatives /associations capacities 1.5.6. Support domestication of high-value trees, fruit trees and shrubs on farms 1.5.7. Facilitate investments in enterprises that improve productivity of agricultural lands

Strategic Options	Strategic Investments /investment areas	Actions for investment
2. Enhance governance and policy implementation to reduce the conversion of forests to other land uses	2.1. Enhance protection and conservation of existing forest resources	2.1.1. Strengthen capacity of KFS and KWS and County Governments in enforcing protection of forests 2.1.2. Enhance institutional coordination for protection and conservation of existing forests 2.1.3. Support community involvement in protection and conservation of forests
	2.2. Strengthen transparency, participation and application of the national values and principles of good governance	2.2.1. Develop, adopt, disseminate and enforce anticorruption policies and guidelines (e.g., REDD+ anti-corruption guidelines) 2.2.2. Support public participation in decision making, implementation and monitoring processes 2.2.3. Adopt, domesticate and disseminate international transparency standards and guidelines (e.g., FLEGT) 2.2.4. Develop, advocate and disseminate national values and principles of good governance 2.2.5. Strengthen communities' engagement into REDD+ programmes cycles in community forests through FPIC
	2.3. Enhance capacity of County Governments, private sector and Communities to implement the devolved forestry functions	2.3.1. Integrate REDD+ in County planning (CIDP), climate change action plans and in spatial and physical planning processes 2.3.2. Clarify land ownership, cost and benefit sharing arrangements to stimulate participation of communities and private sector in REDD+ activities 2.3.3. Support registration of forests held in trust by county Governments, and on community lands to ensure their conservation 2.3.4. Develop incentives for forest conservation including PES programmes in forests 2.3.5. Establish a REDD+ nesting framework
	2.4. Review and harmonize policies, laws and institutions	2.4.1. Establish a forest regulatory authority to coordinate forest sector development in the country 2.4.2. Finalize the Draft National Forest policy 2.4.3. Amend the FCMA 2016 to align to the Forest Policy 2.4.4. Mainstream REDD+ in the FCMA 2016 2.4.5. Develop, disseminate and implement a code of ethics on standards and implementation of SFM 2.4.6. Develop and implement a benefits-sharing mechanism for REDD+ 2.4.7. Strengthen research in forestry and climate change- 2.4.8. Strengthen IPLC based institutions to support REDD+ implementation 2.4.9. Review the PPP Act to strengthen private sector engagement 2.4.10. Revise the definition of mangrove areas to allow appropriate demarcation of boundaries of mangrove ecosystems
	2.5. Support implementation of management plans for all forests	2.5.1. Develop and implement management plans for public, community and private forests with clear guidelines on roles, responsibilities and benefits for all actors 2.5.2. Involve communities in designing and implementation of REDD+ programmes in community forests through FPIC 2.5.3. Develop protocols for total valuation of forests and ecosystems to determine the true value of forest products and services 2.5.4. Incentivize activities that result to reduced deforestation and degradation
3. Increase productivity of public plantation forests	3.1. Efficient and effective management of public forest plantations.	3.1.1. Adopt innovative technologies in plantation establishment and management 3.1.2. Enhance efficiency in forest plantation harvesting operations, processing and utilization 3.1.3. Increase forest productivity using high quality germplasm and appropriate silvicultural practices 3.1.4. Develop protocols to monitor implementation of forest management plans for public forest plantations 3.1.5. Synchronize funding flows with plantation establishment and management calendar
	3.2. Support participation of non-state actors in public plantation programmes	3.2.1. Develop and implement a framework for integrating non state actors in the management of public forest plantations 3.2.2. Develop guidelines to allow the private sector to secure long-term investments in forestry 3.2.3. Develop instruments that recognize forestry as an asset class for insurance and investment by pension funds 3.2.4. Streamline the participation of communities in the plantation establishment

Strategic Options	Strategic Investments /investment areas	Actions for investment
4. Enhance efficiency, effectiveness and skills in forest related value chains	4.1. Promote cost-effective technologies to achieve high emissions reduction at large scale	4.1.1. Support small scale saw millers to adopt low waste logging and saw milling approaches. 4.1.2. Support sustainable production and efficient utilization of biomass energy 4.1.3. Develop and apply incentives for high efficiency wood conversion technologies 4.1.4. Engage other stakeholders involved in the forest/tree value chain to enhance efficiency 4.1.5. Support the use of wood products as a carbon capture technology
	4.2. Improve the forest resource value chain and utilization	4.2.1. Support wood valuation for increased returns on investment 4.2.2. Support forest resource certification 4.2.3. Develop guidelines to improve chain of custody for forest resources 4.2.4. Revise building codes to set wood standards for the construction industry 4.2.5. Support research and innovation along the tree value chain to improve the value of tree growing 4.2.6. Support small growers to consolidate their processing 4.2.7. Support the construction of green buildings 4.2.8. Promote sustainable procurement policies along the tree value chain 4.2.9. Support tax disincentives for importation of timber to make Kenya's timber industry more competitive 4.2.10. Support the use of wood-based power transmission poles 4.2.11. Develop an ecolabelling standard for marketing of charcoal 4.2.12. Support sustainable production and efficient utilization of biomass energy including use of wastes to produce pellets and briquettes
5. Mobilize Finance for implementation of REDD+ in Kenya	5.1. Strengthen national capacity for mobilization of local and international funds	5.1.1. Undertake a full economic valuation of forestry resources to support increased funding from the exchequer 5.1.2. Strengthen capacity and enable readiness at the National and County level to develop programmes within the framework of Article 6.2 and 6.4 of the Paris Agreement 5.1.3. Support National treasury to develop financial instruments that recognize forestry as an asset class for insurance and investment by pension funds 5.1.4. Develop policies and mechanisms for attracting private finance 5.1.5. Implement the Green Fiscal incentive policy 5.1.6. Develop dedicated forestry bonds 5.1.7. Support policies and fiscal incentives that increase finance allocation to the forestry sector at county level 5.1.8. Mainstream REDD+ into development planning and budgeting at national and county levels
	1.2. Support capacity development of Kenyan experts to certify and monitor REDD+ projects	1.2.1. Engage various stakeholders on capacity building to monitor REDD+ Projects 1.2.2. Mainstream REDD+ and carbon accounting in institutions of learning 1.2.3. Establish a "community-of-practice" on REDD+

Strategic Option 1- Scaling up afforestation, reforestation and landscape restoration programmes

4.1. Background

Kenya's FRL identifies historical afforestation activities in 2002-2018 as responsible for sequestering an annual 8,205,540 tons of CO_2 from the atmosphere. Noting the slow accumulation of CO_2 in the growth process, wide scale tree growing is expected to increase this sequestration potential.

Kenya's vision 2030 targets to increase forest cover to 10% through massive tree growing programmes that target to plant an average of 392,000 ha per year assuming all deforestation has been halted. The landscape restoration programme for Kenya has mapped out potential areas for afforestation and reforestation to increase Kenya's forest cover. The tree growing activity is well covered in Kenya's National Forest Program. Such Massive tree growing programmes would help Kenya meet international commitments such as the Bonn Challenge and the African Forest Landscape Restoration Initiative (AFR100). Kenya committed to plant 5.1 million ha of forests by 2030.

A presidential directive sought to achieve the 10% tree cover by 2022 through the 10% forest cover strategy by producing and growing 1.8 million seedlings in 4 consecutive years since 2018. The strategy proposed to plant trees in priority areas as illustrated in table 12.

Table 12: Estimates of intervention areas projected in the 10% tree cover strategy

Intervention Areas	Area (Ha)	No of seedlings
Rehabilitation of degraded natural forests in gazetted forests and water towers	300,000	330,000,000
Rehabilitation of degraded water towers and wetlands outside gazette forests	100,000	110,000,000
Rehabilitation of degraded mangrove ecosystems	17,036	18,739,600
Industrial forest plantation areas restocked	31,000	34,100,000
Commercial private forests plantations established	150,000	165,000,000
Bamboo plantations established	50,000	55,000,000
Trees in farmlands established	350,000	385,000,000
Woodlots, botanical gardens, boundary planting established	70,000	77,000,000
Rehabilitation of degraded dryland forest landscapes	543,000	597,300,000
Greening of infrastructure (roads, a long railway lines, dams), schools, corporates and MDAs	14,000	15,400,000
Total	**1,625,036**	**1,787,539,600**

1.1.1 Justification

The Strategic Option 1- *Scaling up afforestation, reforestation and landscape restoration programme* is considered a low hanging fruit because existing forest management and conservation programmes can easily be tapped into to achieve REDD+ objectives allowing integration of REDD+ in ongoing forest conservation activities. For example, several Government strategies seek to increase afforestation activities and this strategic objective taps into these strategies and brands them as REDD+ activities. This REDD+ strategic option also tries to clear hurdles of financing that have hampered implementation of the afforestation strategies. In addition, tree planting is a multi-stakeholder activity that covers the variety of geographical conditions allowing inclusion of communities, private sector, devolved units and regional projects.

1.2.1 Theory of change for strategic option 1

Figure 6 presents a theory of change for implementing strategic option 1. The figure shows a linkage of the problem (specific to the barriers identified in chapter 2), the problems resulting from the barriers, and the proposed interventions. These interventions then result to outcomes for each strategic option.

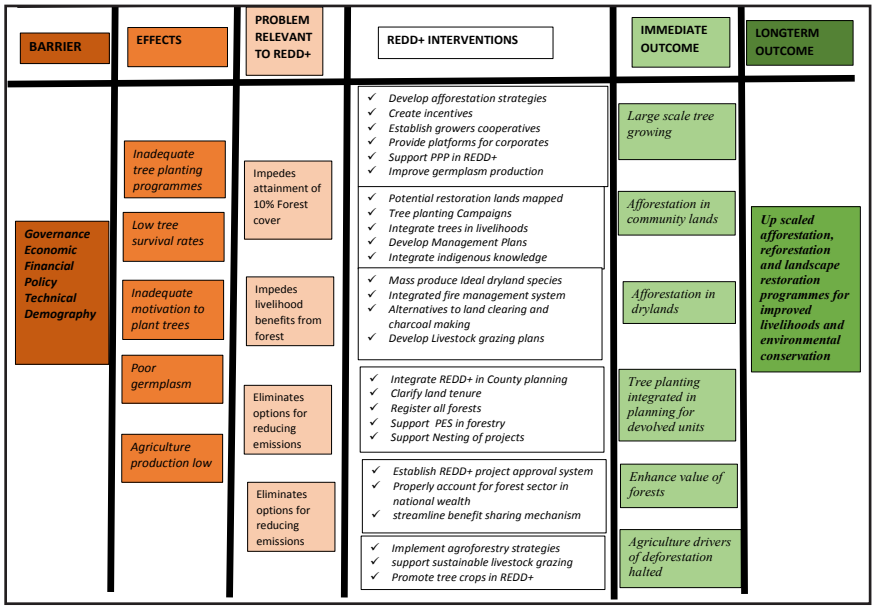


Figure 6: The theory of change for implementing strategic option 1

1.3.1 Responsibilities among key actors for strategic option 1

To actualize strategic option 1 on enhancing afforestation and reforestation programmes, key actors will take up leading roles pertinent to the success of the specific strategic option. Table 13 provides specific responsibilities among the key players.

Table 13: Responsibilities among key implementers for strategic option 1

Investment area	Responsible entities	Responsibilities
Incentivize large scale tree planting programs in private land.	Private sector /CSOs	Develop action plans for tree planting
	KEFRI and Universities	Provide technical guidance
	KFS	Provides extension support
	Financial institutions	Develop grant mechanisms
Create mechanisms for afforestation in community lands for multiple benefits	Communities	Develop action plans for tree planting
	Ministry of Lands/ Survey of Kenya	Facilitates land adjudication and develops spatial plans
	KEFRI and Research institutions (Universities, NMK etc.)	Support information development on cultural and biodiversity roles
	NGOs and INGOS	Support community action plans
	County Governments	Support implementation of tree planting
	MoEF (KFS, KWTA)	Supports community tree planting programmes
Increase afforestation and reforestation activities programmes in drylands	Communities	Develop action plans for tree planting
	Ministry of Lands/ Survey of Kenya	Facilitates land adjudication and develops spatial plans
	Research institutions (universities, NMK etc.)	Support information development on idea dryland species and site matching
	NGOs	Support community action plans
	County Governments	Support implementation of tree planting
	MoEF (KFS)	Support tree planting programmes
	Private sector / CSOs	Adopt large scale dryland afforestation programmes
	Ministry of Agriculture	Supports extension services for agroforestry
Develop PES systems	KFS	Establishes a registry for approval Establishes an accounting system to show valuation
	MoEF KFS	Clarify definitions of carbon rights and tenure rights to streamline benefits-sharing mechanism for all stakeholders Support nesting of jurisdictional projects
	County Governments	Support PES projects including REDD+
Improve productivity in forestry and agricultural value chains.	MoEF	Develops action plan to actualize and monitor performance of 10% farm forestry rules
	Ministry of Agriculture	Supports the implementation of agroforestry programmes
	KFS	Develops policies to enhance community participation through trade
	KEFRI	Technical backstopping in value chain
	Private sector	Develops tree product value chains
	Ministry of Trade	Facilitates registration and operationalization of tree-based value chains

Strategic Option 2: Enhance governance and policy implementation to prevent conversion of forests to other land uses

4.2. Background

Deforestation is identified in the FRL as the largest single cause of GHG emissions in Kenya resulting to an annual emission of 48,166,940 tons CO_2/year. Closely associated with deforestation is the process of forest degradation which eventually leads to deforestation and historically contributed to an annual emission rate of 10,885,950 tons of CO_2. Therefore, halting deforestation and forest degradation is key to achieving results-based payments for REDD+ and achieving the NDC targets from the LULUCF sector.

As described in chapter two, deforestation drivers in Kenya are largely associated with poor governance, inefficient policy implementation, and poor livelihoods of the forest-dependent communities. Poor governance has resulted to encroachment beyond forest boundaries, and allocation of forest areas to non-deserving entities. Inefficient policy implementation, including community policing, has caused gradual encroachment and removal of the forest resources, resulting in forest degradation and eventual deforestation.

Lack of alternative livelihoods for forest dependent communities was identified as an underlying driver of forest degradation since this population growth is increasing rapidly. Therefore, providing alternatives to wood products and developing environmental-friendly livelihoods is ideal for reducing deforestation and forest degradation.

The contribution of forest to the national economic report is based on the amount of timber and charcoal traded in the country. This undervaluation of the forest sector has been identified as a proximate contributor to deforestation and conversion of forests to other land uses that may increase economic growth. Therefore, a total valuation of forests to include ecosystem services, cultural value, and carbon sequestration services is recommended. This will provide a higher value of forests, deter conversion of forests, and contribute to future economic consideration of investments that would alter the value of standing forests.

1.1.1 Justification

Strategic Option 2: *Enhance governance and policy implementation to prevent conversion of forests to other land uses* aims to change the business-as-usual scenario and create interventions that will halt deforestation and forest degradation. Poor governance and political interference in institutions mandated to implement various forests policies have led to the conversion of forest land to other land uses. Inadequate enforcement of policies, inadequate resources (both financial and human resources) to national institutions and county Governments have significantly contributed to deforestation and forest degradation. It is the most significant action in reducing Kenya's emissions and requires action to address the root causes of deforestation. It requires a paradigm shift on forest governance and clear support mechanisms for the forest dependent communities. Therefore, investment in technologies, human resources, and instruments will allow these institutions to generate more income and, hence, increased ability to enforce policies on the forests and climate change is recommended.

1.2.1 Theory of change for strategic option 2

Figure 7 presents a theory of change that links the problem to its effects and the role of REDD+ interventions in solving the problem.

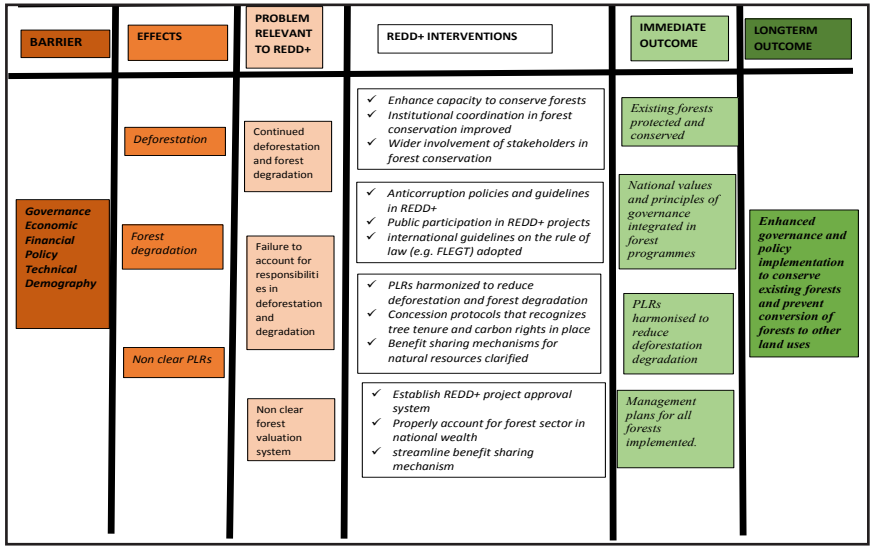


Figure 7: The theory of change for implementing strategic option 2

1.3.1 Responsibilities among key actors for strategic option 2

Table 14 provides specific responsibilities among the key actors in implementing strategic option 2 on enhancing policies to reduce deforestation and forest degradation.

Table 14: Responsibilities among key actors for strategic option 2

Investments	Responsible entities	Responsibilities
Enhance protection of existing forest resources	KFS	Increases enforcement for forest protection Supports implementation of laws on participatory management
	KWS	Increases enforcement for protection of forests in KWS management areas
	KEFRI	Pest and disease management
	County Governments	Support conservation of county and community forests
	Communities	Support conservation of forests
	Private sector	Support conservation of forests
Support implementation of the national values and principles of governance	MoEF (REDD+)	. Develops anticorruption policies and guidelines (e.g., REDD+ anti-corruption guidelines) . Supports public participation on REDD+ . Supports adoption and domesticate international guidelines on the rule of law (e.g., FLEGT) . Develops guidelines for benefits sharing in REDD+
	Ministry of Interior	Supports enforcement of REDD+ anti-corruption policies
	Communities	Develop action plans to enforce anticorruption on issues related to REDD+
	Investors and private sector	Develop action plans to enforce anticorruption on issues related to REDD+
Strengthen capacity of County Governments, private sector and communities to implement the devolved forestry functions.	County Governments	Integrate REDD+ in County development and conservation programmes and develop forest extension services
	County Governments, Communities and KFS	Register forests held in trust by county Governments and develop management plans
	Ministry of Lands	Develops spatial plans for all counties
	MoEF	Builds capacity of devolved functions on REDD+ and Support development of jurisdictional REDD+ projects
	Private sector and communities	Lobby and advocate for large scale commercial tree planting
	KFS	Devolves forestry functions

Investments	Responsible entities	Responsibilities
Review and harmonize laws and institutions	County Governments	. Register all forests held in trust by counties . Review policies and legislation to reduce deforestation and forest degradation in forests especially forests held in trust by counties.
	Ministry of Lands and MoEF, KEFRI and KFS	. Develop land concession protocols that recognizes tree tenure and carbon rights . Develop guidelines to clarify benefits sharing mechanisms for natural resources concerning REDD+ to facilitate implementation instead of including this as an additional hinderance. . Policy analysis
Support implementation of management plans for all forests.	KFS	Develops and implements management plans for public, community and private forests with clear guidelines on roles, responsibilities and benefits for all actors
	Communities (IPs, CFAS)	Develop action plans to actualize community participation in REDD+ programs through FPIC
	MoEF (KEFRI, KWTA) and universities	Develop protocols for total valuation of forests and ecosystems to determine the true value of forest products and services
	MoEF (REDD+ office and NETFUND)	Develops guidelines and mechanisms to incentivize activities that result to reduced deforestation
	Private sector	Develops and implement management plans for private forests

Strategic Option 3 - Increase productivity of public plantation forests

4.3. Background

Plantation forests managed by the KFS are delineated management zones estimated at 136,902 ha. These forests are distributed in the high potential zones mainly within the montane and western rain forests ecozone. The forests are managed primarily to produce round wood for the construction industry, pulpwood for the industrial sector and has firewood and poles as by products.[11] However, inefficient management and lack of capacity have historically resulted to backlogs of replanting equivalent to 882 ha per year making this management zone unable to meet demands for forest products for the construction, industrial and domestic sectors.

The FRL identifies public plantation forests as a potential area for enhancing the forest cover through better management and reduction of replanting backlogs. In addition, it is proposed that efficiency in application of silvicultural operations would increase the forests' productivity to meet the market's demands and enhance the valuation of these forests. An active reforestation programme would create

11 http://www.kenyaforestservice.org/index.php?option=com_content&view=article&id=473:plantation-management-plans&catid=140:forest-planning-information-systems&Itemid=635

a sustained production cycle that ensures harvesting areas are appropriately replanted and managed according to silvicultural standards. The FRL identifies the sustainable management of forests as specific to public plantation forests to create zero net emissions from this management strata. Table 15 derived from the FRL statistics illustrates an area of 46,541 ha within the public plantation zone that were either cropland or grassland in the period 2014-2018.

Weak enforcement, poor resource allocation and limited funding are barriers preventing KFS to meet targets of replanting in immediately harvested areas. This situation is exacerbated by poor community policing in the Plantation Establishment and Livelihood Improvement Programme (PELIS) and the lack of a strong supervision by KFS.

Table 15: An illustration of backlogs in replanting of public plantation forests (Source FRL, 2020)

Land use Conversion (2014-2018)	Area (ha)
Cropland converted to grassland	4,423
Cropland remaining cropland	17,604
Grassland converted to cropland	14,307
Grassland remaining grassland	10,207
Total	**46,541**

1.1.1 Justification

Though commercial management of forests may not qualify as a REDD+ activity, historical management of the public plantation forests has converted them to net GHG emitters when harvested trees are not replanted. By converting 46,541 ha grassland and cropland areas into forests, this management of forest strata will contribute to forest cover increase, while sequestering carbon. Furthermore, maintaining these strata as sustainably forested into the future implies an increase in the CO_2 sequestration potential of the country.

1.1.1 Theory of change for strategic option 3

Figure 8 illustrates the problem and shows how the proposed interventions are expected to solve the problem

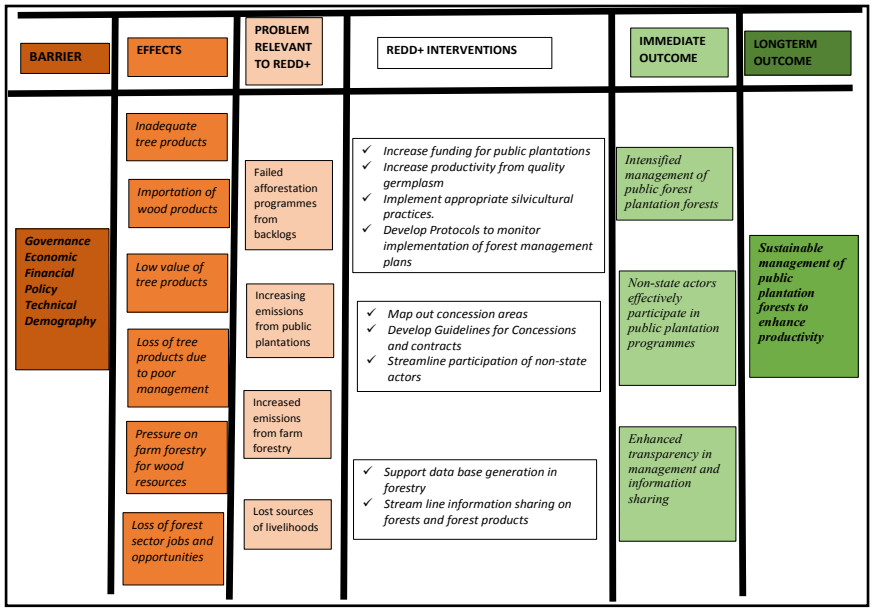


Figure 8: The theory of change for implementing strategic option 3

1.1.1 Responsibilities among key actors for strategic option 3

Specific responsibilities among the key actors in implementing strategic option 3 on sustainable management of public plantation forests are presented in table 16.

Table 16: Responsibilities among key actors for strategic option 3

Investments	Responsible entities	Responsibilities
Efficient and effective management of public forest plantations.	KFS	. Develops management plans for all public plantation forests . Develops guidelines to monitor implementation of management plans
	KEFRI	. Develops guidelines for species site matching . Provides information on superior germplasm for specific tree products . Provision of quality tree seeds
	Private sector	. Develops action plans to ensure adoption of superior germplasm and species site matching for optimal productivity . Adopts forests under concession agreements

Investments	Responsible entities	Responsibilities
Support participation of non-state actors in public plantation programmes	Financial institutions (e.g., banks)	. Develop a framework for loans to private sector managing forest plantations . Allocate dedicated loans for forest management
	KFS	. Develops management plans for all public plantation forests . Develops and actualize guidelines for Concessions and contracts to allow the private sector secure long-term investments
	Private sector	. Adopt forest concessions and contracts to manage public plantation forests . Lobby for private sector participation in management of Government plantations
	Communities (CFAs)	. Support efficient implementation of management plans for public plantations . Revise guidelines for community participation in PELIS
Enhance transparency in management including information sharing	KFS	. Develops and implements a Forest information System . Supports inclusive participation of stakeholders in decision making and implementation

Strategic Option 4: Enhancing efficiency, effectiveness and skills throughout forest related value chains

4.4. Background

Inefficiency in converting tree products has been identified as a driver of deforestation and forest degradation. The chain saw has commonly been used by small-scale timber producers for tree felling and splitting logs, resulting in conversion efficiencies below 40%. Some medium scale timber loggers also use wasteful circular saws and it is only the large scale companies that have fully adopted efficient timber production systems. Besides sawing, charcoal production systems have also been very wasteful, especially the most commonly used open air kilns.

Inefficiency in production results to a greater need to cut more trees to meet the same demand. It has been estimated that a third of the trees cut would be saved if proper sawing equipment were used while a half of tree cut would be saved if efficient charcoal production kilns were used.

Besides wood conversion efficiencies, poor valuation of wood and non-wood-based products due to inefficient value chains lowers incentives to plant and maintain forests. In some areas, more valuable farm products are preferred instead of trees.

1.1.1 Justification

Developing the wood and non-wood product value chain reduces the rate of deforestation and forest degradation because fewer trees will be cut compared to the BAU scenario. In addition, an improved

value chain creates jobs along the production and marketing sectors and therefore supports the national development objectives. It is noted that when demand for forest products has out scaled the supply, Kenyans have often resorted to importing timber which would have been availed locally had proper mechanisms for producing timber would have been availed. Therefore, improving the value chain for timber tree products saves Kenya's currency and supports livelihoods.

1.2.1 Theory of change for strategic option 4

Figure 9 is a presentation of the linkages between the problem, proposed interventions and the expected outcome

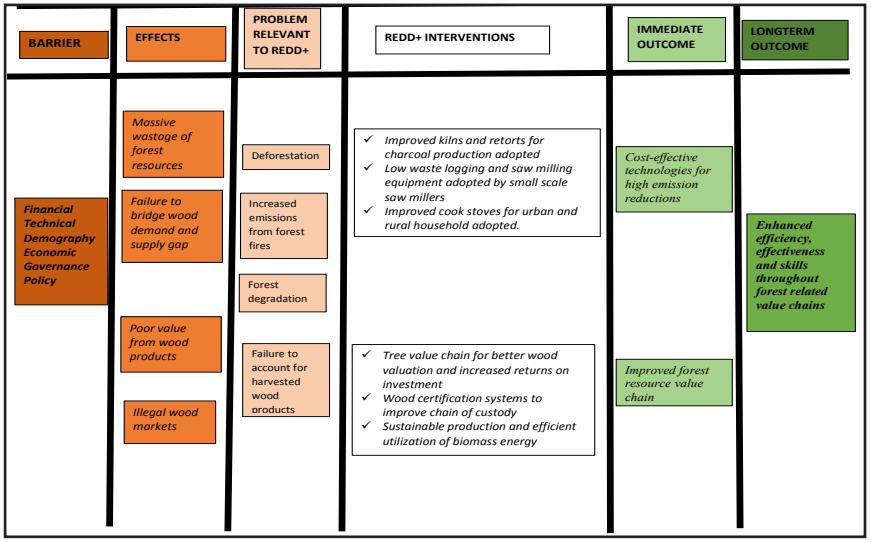


Figure 9: The theory of change for implementing strategic option 4

1.3.1 Responsibilities among key actors for strategic option 4

The specific responsibilities distributed among the key actors in the implementation of strategic option 4 on enhancing efficiency of production systems are presented in table 17.

Table 17: Responsibilities among key actors for strategic option 4

Investments	Responsible entities	Responsibilities
Promote cost-effective technologies to achieve high emission reductions at large scale	KFS	. Develops and implement charcoal trading rules . Develops guidelines for charcoal production
	KEFRI and universities	. Support research on efficiency in charcoal kilns . Develop technologies to improve wood conversion rates
	Private sector and KFS	. Develop and pilot charcoal certification guidelines
	Saw millers Association	. Develop guidelines and monitor implementation of low waste logging and saw milling equipment by small scale saw millers
	Ministry of Energy and NGOs	. Support adoption of improved cook stoves for rural and urban households
Improve the forest resource value chain	Private sector	. Develops and implements value chains for forest product resources like timber, resin, medicine, fiber, bamboo etc.
	KFS and private sector	. Adopt international guidelines for tree product certification and actualize their implementation
KEFRI	KEFRI	. Improves technologies in efficient conversion . Marketing and chain of custody in value chain . Capacity building in the value chain
	Private sector and Research institutions	. Promote sustainable production and efficient utilization of biomass energy including use of wastes to produce pellets and briquettes.

Strategic Option 5: Mobilize finance for implementation of REDD+ in Kenya

4.5. Background

A review of barriers to sustainable management of forests has identified lack of finance as a major issue. Kenya, a developing country with limited resources, has prioritized its budgetary allocation on developmental programmes. Therefore, funding for environmental and forest conservation majorly relies on developmental partners. However, the analysis of financial mechanisms to support this strategy identifies that the Government commits little funds for the forest sector. For example, between 2005 and 2015, only KSh 37 billion was allocated for climate change related projects. This implies that only a small allocation was done to support climate change projects in the forest sector.

The analysis of financial mechanisms further identifies development partners as a major source of financing for activities targeting climate change. For example, between 2005 to 2015, a total of KSh 194 billion (USD 2.29 billion) were directed to programmes deemed to have a significant climate change

component. Even when such funds are allocated, the report identifies limitations with access to such funds including the requirement for devolved Governments to develop climate change action plans and mechanisms for funding them. It is noted that Kenya is participating in eight approved GCF projects worth USD 2.839 billion, but the majority are multi-country projects.

The financial review has identified various sources of funds from international mechanisms, including multilateral climate finance and bilateral climate finance. In both cases, an active resource mobilization programme is required and capacity for such may be lacking in REDD+ implementing institutions of Kenya. For example, developing a GCF proposal requires understanding of concept development, proposal writing skills, feasibility assessments, environmental and social impact assessment and financial analysis.

Other active sources of financing for REDD+ are the voluntary carbon projects many of which have been explained in chapter 5. These projects rely on site specific interventions and provide financing based on project level arrangements. This is the arrangement that this strategy proposes it be harmonized with national REDD+ projects to create nested REDD+ designs.

1.1.1 Justification

In the REDD+ preparatory phase, a lot of finance is needed to make Kenya REDD+ ready. Lack of this finance in a developing country compromises the final objective. An active resource mobilization programme coupled with a framework for consolidating funds for REDD+ will help Kenya meet the identified REDD+ targets. A REDD+ financing mechanism allows all stakeholders to actively uptake roles that support the readiness process.

1.2.1 Theory of change for strategic option 5

Figure 10 is an illustration of the linkages between components in solving the problem of finance for REDD+ implementation

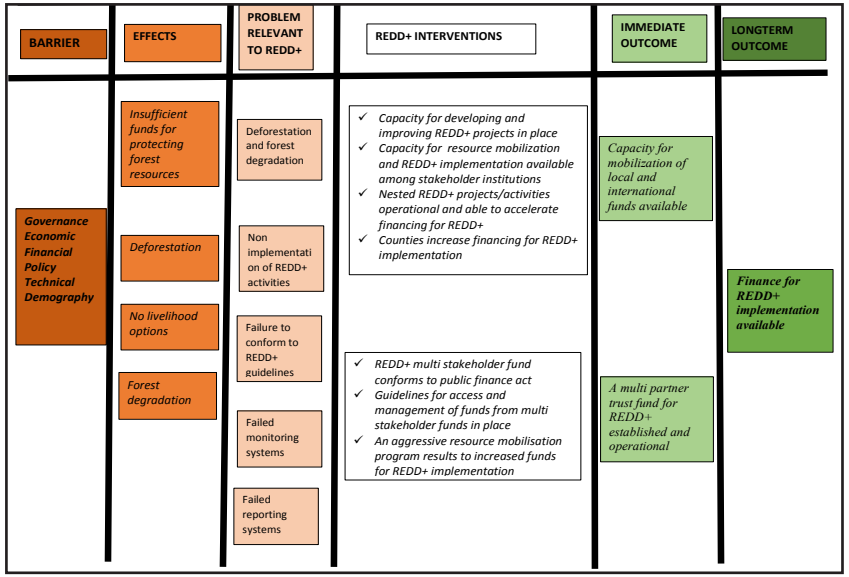


Figure 10: The theory of change for implementing strategic option 5

1.3.1 Responsibilities among key actors for strategic option 5

The specific responsibilities distributed among the key actors in the implementation of strategic option 5 on resource mobilization are presented in table 18.

Table 18: Responsibilities among key actors for strategic option 5

Investments	Responsible entities	Responsibilities
Strengthen capacity for Mobilization of local and international funds	MoEF (REDD+ office)	. Supports establishment of nested REDD+ projects/ activities to accelerate financing for REDD+ . Builds capacity on appropriate standards and methodologies for approving REDD+ projects
	MoEF and Treasury	. Support capacity among relevant institutions on resource mobilization and implementation . Improved resource allocation to forestry sector . Broaden scope of financing like use of pension funds in forestry development
	MoEFF and County Governments	Support policies that increase finance allocation to the forestry sector at County level
	Private sector / investors	. Lobby for and promote adoption of REDD+ projects to accelerate financing for REDD+ . Enhance access to international and domestic carbon markets (both voluntary and compliance)." . Lobby for incentives for enterpreneurs in forestry
Establish a multi partner trust fund for REDD+	MoEF and Treasury	. Develop modalities for establishing a multi stakeholder REDD+ fund that is aligned with the finance Act 2020 . Support an aggressive resource mobilization for REDD+ at local and international forums
	NEMA and NETFUND	. Support development and submission of a GCF proposal for REDD+
	Private sector / investors	. Mobilize resources for the multi stakeholder REDD+ fund to enable its operationalization

5. CHAPTER FIVE: COORDINATION AND IMPLEMENTATION ARRANGEMENTS

Introduction

Kenya's long-term development blueprint, Vision 2030 aims to transform Kenya into an industrialized middle-income country offering a high quality of life to all our citizens. The Vision is being implemented through successive five-year medium-term plans. The National REDD+ Strategy is embedded in the Third Medium Term Plan (MTP III) 2018-2022. It is also expected to be carried on in the Fourth Medium Term Plan (MTP IV) 2022-2025 currently under development. This allows uptake of responsibilities, ownership of the processes and seamless flow of information/data towards achieving the REDD+ results.

Consultation and participation

REDD+ implementation is a multi-stakeholder and multi-institutional process. Having identified the variety of stakeholders and their specific roles as indicated in the preceding section, an inclusive participation process would enhance timely achievement of the targeted objectives. The specific consultation processes are described below.

5.1. Private sector Participation

The private sector comprises individuals or groups of investors who wish to participate in REDD+ implementation. They include local investors participating in tree planting and forest conservation activities to investors interested in financing REDD+ activities. Such financing may take the form of grants, results-based payments (i.e., payments conditioned on achieving certain performance metrics) or revenues from the sale of carbon credits generated by REDD+ activities.

The participation of the private sector requires clear guidelines on consultation and stakeholders' participation, project approvals, benefits-sharing mechanisms and tax guidelines among others. As part of clarifying financing for REDD+, Kenya may explore the possibility of a domestic carbon pricing scheme that guides agreements with the buyers. This harmonization clarifies the carbon market to the local people and allows development of guidelines or allows creation of national environment for implementation of carbon projects in line with the various opportunities through the Paris agreement carbon trading instruments and voluntary carbon market. This is very important as an incentive for private sector investment in REDD+ activities.

The private sector responds well to performance metrics that can support a potential return on investment which justifies venturing into corporate forest-based reduction of emissions, innovating solutions and supply of private finance. This option may be useful for Governments with insufficient resources or with strong fiscal levers. Further, providing finance to local actors considers the local context and incentivizes sub-national Governments and projects to perform optimally. It also directly rewards performance, encouraging private sector engagement in REDD+ in the country and achieving efficient and cost-effective emission reductions.

As Kenya prepares for a transition to integrating site-scale REDD+ projects with the national REDD+ architecture, consideration for potential benefits and risks associated with various nesting strategies should be adequately provided for. Therefore, it will be important to engage in an inclusive and transparent stakeholders' consultation process to help assess and develop the most appropriate guidelines for nested projects.

Borrowing from the already implemented carbon projects in Kenya (Annex 1), which the private sector has largely supported, Kenya has an opportunity to borrow from the lessons learned from these projects as provided below.

- Most of the carbon projects cover reforestation, avoided deforestation, improved management of natural forests, are critical in carbon emission reductions, and offer critical lessons in climate financing. Therefore, promoting afforestation and reforestation to support smallholder livelihoods increases forest cover and primarily maximizes carbon credits within the policy framework of REDD+ as an important building block for REDD+ in Kenya.
- High costs for carbon project development limits the startup and scaling of most carbon projects which requires the participation of the private sector in providing the required capital.
- Long term arrangements are needed in carbon project arrangements to provide for permanence. This also requires a harmonized and sustainable monitoring system.
- Though projects such as Kasigau REDD+ Project were designed before policies in REDD+ were enacted, lessons from such projects are very important in designing new REDD+ projects.

5.2. Engagement with Indigenous Peoples, Local Communities and Youth

As recommended in the PLRs section, implementation of REDD+ projects requires compliance with the Cancun Safeguards and demonstration of such compliance. This includes various stakeholder engagement including standards for stakeholders mapping, engaging in inclusive and transparent stakeholders' consultations throughout the project cycle, their participation in various decision-making processes. Further, it will include developing Stakeholder Engagement Plans with robust disclosure requirements, appropriate Feedback Grievance and Redress Mechanisms and requirements for FPIC as appropriate.

To support IPLCs and youth engagement, Kenya might look to existing standards for stakeholders' engagement adopted by carbon market programs. It could also engage the principle of free, prior, and informed consent (FPIC) for guidance in developing and implementing its strategy and defining its approach to the Cancun Safeguards.

Drawing on lessons from the REDD+ readiness phase, Kenya has ensured participation of IPLCs and youth through their representatives in the taskforce team, and in the project steering committee as a best practice measure on engagement, including grievance mechanism for feedback and complaint channeling. Their views as collected and detailed through various processes will inform the REDD+ investment options and strategies that Kenya will implement.

5.3. Nesting and subnational arrangements

Nested designs in REDD+ describe systems that allow for site or subnational-scale REDD+ activities to be incorporated into and formally recognized under national REDD+ programs, allowing for benefits to flow at all scales. Site and project scale REDD+ projects in Kenya have existed in a context where they were not required to contribute to the national emission reduction targets (e.g., NDC targets). However, noting that these site scale projects have successfully raised finance for conservation activities on the ground by monetizing emission reductions and removals in the voluntary carbon market, Kenya is working to 'nest' site-scale REDD+ projects within its national REDD+ institutional arrangement.

In practice, the 'nesting' of site-scale REDD+ projects involves integrating those site-scale REDD+ projects with a national or subnational jurisdictional approach. By doing so, nesting catalyzes local actions that can contribute to the national emission reduction targets and ensure that the benefits of both site-scale REDD+ projects and national and/or subnational REDD+ programs endure and are consistent with globally agreed principles and provisions. In this context, the National Experts Group (NEG) was formed by the

MoEF to provide technical and policy guidance for nesting existing REDD+ site-scale activities and projects into the national REDD+ program.

Adoption of a nesting framework for Kenya's REDD+ programme has been necessitated under the following understanding:

- Existing site scale REDD+ projects have clear management infrastructure, including MRV frameworks that can advise and support the national level programs
- Site scale projects have proved efficient and meeting some of Kenya's developmental and conservation objectives besides GHG emission reduction. They have supported conservation of biodiversity and wildlife habitats which enhances tourism, have enhanced catchment conservation for improved livelihoods and have clear mechanisms for involvement of local communities
- The great variation in forests of Kenya including the variety of stakeholders makes sites scale implementation of projects preferable because it easily specifies responsibilities and benefits sharing mechanisms at the local scale
- Site scale projects allow higher accuracy in MRV programmes and are therefore preferable in upcoming REDD+ markets
- Nesting existing site-scale REDD+ projects within the national REDD+ architecture will address the risks of double counting and double payment, since the site-scale projects would be aligned with a national REDD+ program
- Nesting also helps address concerns about leakage, as the national REDD+ program still captures any in-country shifts in activities or emissions.

Grievance redress mechanism

To ensure satisfaction of all actors in the REDD+ implementation process, a National REDD+ Feedback and Grievance Redress Mechanism (FGRM) for Kenya has been developed. This will allow stakeholders to raise their concern and the system ensures that proper address of such issues will be catered for under the REDD+ process. The FGRM has the following stages

i. Receipt and registration of feedback/grievance, which includes oral communication, email, letters, shared in barazas, print and digital media etc.
ii. A national/project log of grievances that indicates the grievances, locations and actions taken
iii. An acknowledgement, assessment and assignment system for all received grievances
iv. An assessment of the complaint for clarity to ensure that it meets the threshold as outlined under the four key REDD+ priority areas. For avoidance of doubt, all complaints must meet the 5WH Questions. (Who, What, When, Where, Why and How)
v. An assignment through a central registry system to the relevant Government agency and/or any other mechanism to resolve the dispute
vi. A resolution of the dispute either through direct actions (e.g., a court resolution) or development of a consensus solution where Parties have to agree
vii. Communication of the response which should be done within 14-21 days; and in a language that the complainant easily understands with provision for follow-up questions and clarifications where necessary
viii. If the complainant agrees with the proposed response, subsequent steps take effect. If there is no agreement, the relevant staff need to ensure the complainant understands what other recourse may be available. For sensitive and challenging cases, the FGRM may seek agreement to use independent assessments (mediation, adjudication, judicial process etc.)
ix. Closeout/Referral for successfully sorted grievances will be documented
x. For unresolved grievances steps taken will be documented and communication with the complainant and other stakeholders provided.

Figure 11 presents a Grievance redress system proposed in Kenya

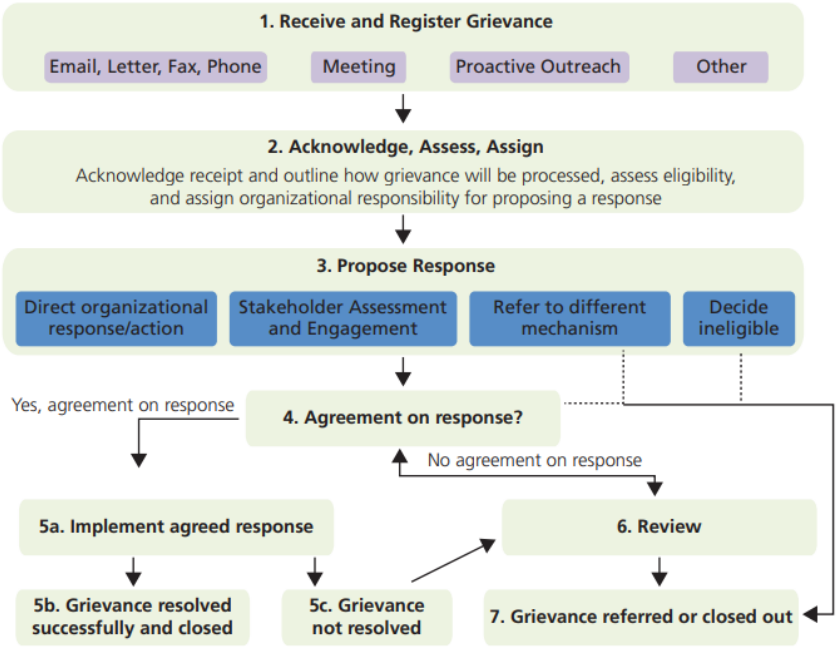


Figure 11: Proposed grievance redress mechanism (Source: Republic of Kenya, 2013)

Governance framework and structures for REDD+ implementation

The National REDD+ Strategy is planned to be integrated into the national planning and implementation processes of ministries institutions, authorities and counties, in line with the existing mandates in the implementation and coordination of the implementation of the main strategies. In addition, the UNFCCC framework requires countries to include a national REDD+ institutional framework for REDD+ and other international reporting. As discussed below, Kenya's REDD+ framework is built on existing forest governance structures and strategies.

5.4. The Ministry of Environment and Forestry

The Ministry coordinates climate change and forestry issues in Kenya. A Climate Change Directorate (CCD) has been established at the ministry under the Climate Change Act of 2016. In addition, the Ministry coordinates with other ministries, departments and County Governments with responsibilities that would support achievement of the REDD+ goals. These ministries include but not limited to agriculture, energy, National Treasury and Planning, devolution and ASALs etc. Other agencies that also support implementation of climate change and forestry issues in the ministry include the Kenya Forest Service, the Kenya fForest Research Institute, the Kenya Meteorological Department, the National Environment Management Authority, the Directorate of Resource Surveys and Remote Sensing, The Kenya Water Towers Agency, and the National Environment Trust Fund, National Environment Complaints Committee and the National environment tribunal. The CCD in this ministry has developed Climate Change (Monitoring, Reporting and Verification) Regulations, 2021 to facilitate reporting on adaptation actions to CCD and also Climate Change (Duties and Incentives) Regulations, 2021 that impose various duties to public entities. In addition, the Ministry has a specific Directorate that coordinates forest conservation issues, and this is the directorate in which REDD+ coordination is proposed.

This strategy proposes continued coordination of REDD+ strategy.

5.5. The National REDD+ Supervisory Board /Steering committee

The National REDD+ Strategy implementation will be supervised and monitored by a National REDD+ supervisory board to be established by the Cabinet Secretary. It comprises representatives of all ministries with climate change related issues on their respective mandates as well as representative from Council of Governors, Independent Commissions (Kenya National Commission on Human Rights, National Land Commission, National Gender and Equality Commission, Ethics and Anti-Corruption Commission), Representatives of the Indigenous People and Local Communities (IPLCs), Private Sector and Civil Society. This will provide the platform for policy coordination and harmonization among the targeted sectors and leverage the linkage between REDD+ options and the sector development priorities and programmes. In addition, REDD+ implementation will prioritize the generation and dissemination of forestry data that informs other sectors on the relationship between the drivers of deforestation and sector mandates and actions. This will be the apex body to guide the implementation of the REDD+ programme ensuring a multi stakeholder involvement comprising of Chief Officers from the various institutions. It will be the highest decision-making organ that provides advisory services and policy guidance to the whole process and will be chaired by the CS Ministry in charge of Forestry.

The team will be responsible for designing policy, standards and instruments proposed to implement REDD+ in Kenya for approval by the board above proposed. In addition, it will be charged with the responsibility of ensuring REDD+ is integrated in National planning processes, sectoral implementation plans and facilitate mobilization of resources. Convened by the Principal Secretary in charge of forestry, the National steering committee will be composed of representatives from relevant institutions including the Ministries in charge of climate change, Energy, Planning, Finance and Agriculture. In addition, the Chief Officer of KFS, KEFRI and NEMA among Government agencies and with representation of the Council of Governors. International conservation agencies implementing the REDD+ activities private sector in various REDD+ project will be represented. Local NGOs dealing with forestry will be represented while community groups will be represented under the Indigenous Peoples and local community organizations working on REDD+ and forest conservation and NACOFA. A representative from universities, UNDP, UNEP, FAO and the Chair of the forest sector Donor Coordination Group will also be included.

5.6. The National REDD+ Coordination Unit

The National REDD+ Coordination Unit (NRCU) within the Directorate of forest conservation will be the secretariat to the REDD+ Advisory/committee. In addition, the NRCU will coordinate the National Technical committee on REDD+. The NRCU will also convene meetings of the Thematic Working groups.

5.7. Thematic Working Groups (TWG)

Technical working groups are proposed, drawing technical experts from key institutions with respective mandate. These will also include experts from civil society, indigenous communities and universities on various subject maters. They will provide technical leadership and advise to REDD+ implementation. These working groups will support various institutions and stakeholders as called upon in the design of programmes and instruments proposed for implementation. The following groups are proposed:

- Policy and National REDD+ Strategy implementation Working Group-
- The Safeguards Information System, Communication and Stakeholder engagement Working Group
- Forest Monitoring MRV working group

5.8. REDD+ implementing institutions

These comprise Government agencies, private sector non-Governmental organizations, international non-Governmental organizations, community groups, and inventors participating in the REDD+ process. Their representation will be realized in the national steering committee.

Figure 12 presents an organogram proposed for REDD+ implementation in Kenya. The organogram shows the role of that stakeholders in the REDD+ implementation process and their relationships

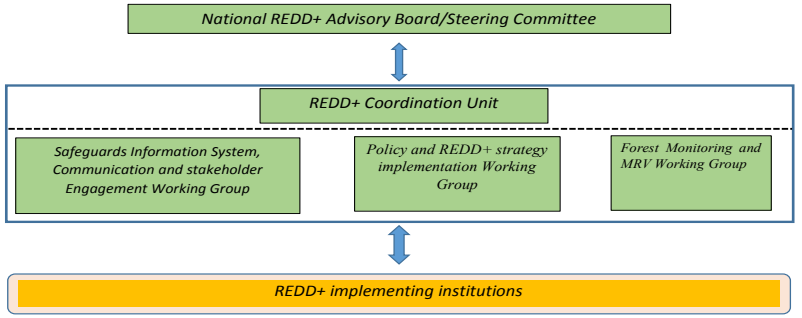


Figure 12: Proposed institutional arrangement for REDD+ implementation

6. CHAPTER SIX – MONITORING AND REPORTING REDD+ IMPLEMENTATION

Introduction

This chapter provides information on the linkages between the Strategy and other REDD+ documents in delivering the REDD+ objectives. Kenya has completed the four elements contained in the Warsaw Framework. This includes submitting a Forest Reference Level to the UNFCCC, developing a monitoring and reporting framework for REDD+, developing a national approach to Safeguards and setting up the institutional framework for REDD+ implementation.

Forest Reference Levels for Kenya (FRLs)

Kenya has submitted its Forest Reference Level (FRL) to the UNFCCC based on historical analysis of emissions arising from the forest sector between 2002-2018. The FRL projected an emission trend based on the historical trend equivalent to 52,204,059 tCO2/year under the Business-as-Usual scenario. Based on data collected as part of this process, deforestation in the country is estimated at 103,368 ha per year (0.17% of the national land area). Still, conservation efforts achieve about 90,477 ha of reforestation annually (0.15% of national land area). According to Global Forest Watch, Kenya lost 361 ha of tree cover from 2001 to 2020, equivalent to a 11% decrease in tree cover since 2000, and 176 Mt of CO_2 eq. emissions. Top six regions responsible for about 52% of all tree cover loss between 2001 and 2020 include Narok (72.4kha), Nakuru (31.5kha) Kilifi (24.9kha), Lamu (21kha), and Kwale (18.6kha). From 2001 to 2012, Kenya gained 100 kha of tree cover equal to 0.12% of the global total. As of 2010, Narok had the most tree cover at 301kha compared to an average of 71kha (Lamu 262kha, Garissa 252kha, Nyeri 182kha, and Kilifi 173kha). Therefore, the implementation of this strategy provides actions that help Kenya get out of the BAU scenario into an emission reduction trajectory measured by the National Forest Monitoring system.

National Forest Monitoring System (NFMS)

Kenya has developed a National Forest Monitoring System for collecting AD and EF and has finalized documenting the procedures (KFS, 2021). This NFMS document illustrates the MRV function and data management function of the GHG inventory process. The main objectives of the document are described as follows.

i. To develop the methodology of how forest is monitored
ii. Integrate the National registry to aid monitoring and reporting
iii. To develop the data management system for REDD+ and sustainable forest management
iv. To clarify the institutional arrangement for implementation of NFMS
v. To clarify the mid/long time calendar for implementation of the national forest monitoring system

The NFMS document allows a stepwise improvement of the MRV framework based on new technologies, information/data, and/or methodologies. This includes actualization of the improvement methods identified in the FRL.

Safeguard Information System

Kenya has developed a national approach to safeguards and a safeguards information system to monitor social and environmental safeguards. The national approach sets out the how safeguards can be addressed and respected in implementing policies and measures contained in this Strategy. Kenya's national approach is based on an interpretation and national application of the UNFCCC Cancun safeguards as follows:

. Actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;
. Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
. Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;
. The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of this decision;
. Actions are consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services. Further, these actions are to enhance other social and environmental benefits, taking into account the need for sustainable livelihoods of indigenous peoples and local communities and their interdependence on forests in most countries, reflected in the United Nations Declaration on the Rights of Indigenous Peoples, as well as the International Mother Earth Day.
. Actions to address the risks of reversals;
. Actions to reduce displacement of emissions.

GHG Reporting in BURs and National Communications

Having submitted the FRL to the UNFCCC, Kenya's reporting for REDD+ and results-based payments to the UNFCCC will be provided in a REDD+ Technical Annex to the Biannual Update Report (BUR)[12]. The information contained in the technical annex will be analyzed by the Technical Team of Experts under the UNFCCC International Consultation and Analysis (ICA) process.

It is noted that after submitting the 2nd National Communication to the UNFCCC in 2015, Kenya has not developed a BUR guided by CoP Decisions[13] which were due in the years 2017, 2019 and 2021. Submitting a BUR is vested in the Directorate of Climate Change in the MoEF, which is also responsible for compiling GHG inventories including those from the forest sector. Therefore, the implementation of the National REDD+ Strategy envisions a functional and fully compliant international climate change reporting process that allows timely reporting of progress from REDD+ implementation.

12 decision 14/CP.19- Parties seeking results-based payments, that have already completed the technical assessment of their FREL/FRL, are requested to submit a REDD+ technical annex to the BUR

13 Decision 2/CP17

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8. ANNEXES

Annex 1: Ongoing Carbon projects from the AFOLU sector

Project name	Project Proponent	Location	Standard	Main activities of the project	Status
The Chyulu Hills REDD+ Project (CHRP)	Chyulu Hills Conservation Trust in collaboration with KFS, KWS and David Shedrick Trust	Tsavo-Amboseli ecosystem in southeastern Kenya	VCS and CCB Standards	Afforestation/ reforestation and avoided deforestation	Ongoing
Kasigau Corridor REDD project	Wildlife Works	South-eastern Kenya - Rukinga Sanctuary and 14 other land units	VCS and CCB	Afforestation/ reforestation and avoided deforestation	Ongoing
Kenya Agricultural Carbon Project (KACP)	VI Agroforestry in partnership with the World Bank BioCarbon Fund and Unique Forestry	Nyanza and Wester provinces	VCS	Sustainable Agricultural Land Management (SALM)	Ongoing
TIST A/R Projects	The International Small Group and Tree Planting Programme and partnership with the Clean Air Action Corporation	Eastern Provinces and Central Rift Valley	VCS and CCB	Afforestation/ reforestation and avoided deforestation	Ongoing
Northern Kenya Grasslands Carbon Project	Northern Rangelands Trust	Northern Rangelands Trust Conservancies	VCS and CCB	Avoided land degradation/ land management improvement	Ongoing
Livelihoods Mt Elgon Project	VI Agroforestry in partnership with Unique Forestry	Mt Elgon	VCS	Sustainable agricultural land management	Validation process
Conservation of Miombos in Taru, Kenya REDD+	Swiss Carbon Value Ltd	Taru Ranch in Kwale County	VCS	Afforestation/ reforestation and avoided deforestation	Validation process

Project name	Project Proponent	Location	Standard	Main activities of the project	Status
Paradigm Kenya Clean Cookstoves Project	Paradigm Project, Thailand in collaboration with the World Food Program	National – Kenya	VCS, previously Gold Standard	Avoided deforestation	Ongoing
Installation of high efficiency wood burning cookstoves in Kenya	C-Quest Capital Stoves Asia Limited, Malaysia	National – Kenya	VCS	Avoided deforestation	Under development
Mikoko Pamoja REDD+ Project	Mikoko Pamoja Community Organisation and the Association of Coastal Ecosystem Services (ACES)	Kenyan coast at Gazi Bay	Plan Vivo	Afforestation/ reforestation and avoided deforestation.	Ongoing
Community-led mangrove conservation and restoration project	(ACES	Vanga, Jimbo and Kiwegu villages in Kenya's South Coast	Plan Vivo	Afforestation/ reforestation and avoided deforestation	Ongoing
Tree Kenya A/R Project	Keystone Legacy Kenya and SCOPE Kenya	Central and Eastern provinces	Plan Vivo	Afforestation/ reforestation and avoided deforestation	Design (PIN approved)
Upper Tana Nairobi Water Trust Fund	The Nature Conservancy (TNC)	Upper Tana watershed-Murang'a, Nyeri, Nyandarua and Laikipia counties.	Plan Vivo	Afforestation/ reforestation and avoided deforestation	Design (PIN approved Nov 2020)
Mount Kenya Landscape Conservation REDD+ Project	Space for Giants in collaboration with KFS, KWS, Rhino Ark and Mt. Kenya Trust	Mt Kenya, Aberdares and Laikipia Landscape	VCS	Afforestation/ reforestation and avoided deforestation	Concept under development