



**MINISTRY OF
ENVIRONMENT,
CLIMATE CHANGE
& FORESTRY**

NATIONAL AGROFORESTRY STRATEGY (2025 - 2035)



“Towards Sustainable Land Use and Livelihoods”

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Agroforestry is a promising land management system that improves farmers' livelihoods while reducing the pressure on public forests for increased supply of goods and services. I am honored to present the National Agroforestry Strategy (2025-2035), a comprehensive, ten-year, cross-sectoral and multi-stakeholder plan aimed at enhancing agroforestry development in Kenya for environmental sustainability, climate change adaptation, food security and socio-economic development.

The greatest opportunity to increase tree cover and restore degraded landscapes lies in private and community lands, particularly in Arid and Semi-Arid Lands (ASALs). This strategy provides interventions to boost agricultural productivity, supply both wood and non-wood forest products, and strengthen ecosystem services. The proposed measures will contribute to increased food and nutrition security, job creation, and greater economic contribution from the forestry sector.

The government, through the Bottom-up Economic Transformation Agenda (BETA), identifies agroforestry development as one of its key agendas. The plan commits to developing a policy and regulatory framework for enhanced climate finance, growing agroforestry tree species in the ASALs, establishing five million acres of agroforestry woodlots in the drylands, modernizing and commercializing the charcoal value chain, and promoting youth-owned and operated briquette enterprises. At the heart of this strategy is a commitment to leverage our natural resources for community benefit, while ensuring sustainable management and use.

Investment in agroforestry, as a nature-based solution, presents a significant opportunity for diversifying livelihoods and strengthening economic resilience, especially in the face of climate change challenges. As we navigate the complexities of the current climate crisis, it is imperative that we embrace alternative livelihood approaches that mitigate risks and address the threats posed by climate change.

Community engagement lies at the core of this strategy. By recognizing and enhancing the role of communities in conserving and utilizing agricultural and forestry resources, we aim to improve ecological functioning and advance the aspirations of BETA. The strategy further seeks to enhance valuation of agroforestry systems and their contribution to Kenya's economic development.

The benefits of agroforestry on private farms, rangelands, and woodlands cannot be understated. These practices can significantly improve sustainability in agriculture and forestry, increase productivity, and boost farmers' livelihoods and incomes. When well implemented, agroforestry will help reduce soil erosion and nutrient runoff, and conserve vital natural resources, including water and biodiversity.

I extend a warm invitation to all stakeholders, including development partners, the private sector, civil society organizations, faith-based organizations, and local communities, to collaborate with the government, in supporting the implementation of this strategy. Together, let us work toward a future where Kenya's agroforestry resources are harnessed responsibly and equitably for the benefit of all.

Dr. Deborah M. Barasa
Cabinet Secretary
Ministry of Environment, Climate Change and Forestry

PREFACE



The National Agroforestry Strategy (2025–2035) provides a vital framework for guiding the implementation of agroforestry in Kenya to promote sustainable land use and improve the livelihoods of all Kenyans. Despite growing recognition of the benefits of agroforestry, its integration into national policies and institutional frameworks remains low. This is largely due to fragmented implementation approaches at both the National and County Governments. Existing policies and strategies often focus on agriculture or forestry interventions separately, with minimal emphasis on the integrated approach that agroforestry offers as sustainable land use option.

To address these challenges, collaborative efforts among policymakers, researchers, practitioners, and communities are essential. This includes streamlining governance structures for agroforestry development in the country, establishing standardized metrics to assess agroforestry benefits, fostering supportive policies, and providing incentives to encourage its widespread adoption. By embedding agroforestry within both the agriculture and forestry sectors will enhance community livelihoods while promoting environmental sustainability and landscape restoration.

The strategy is anchored on six thematic areas: Policy, Legal, and Institutional Frameworks; Finance and Investment; Education, Research, Innovation, and Knowledge Management; Agroforestry Value Chain Development; Climate Change Action; and Gender, Youth, and Social Inclusion.

At the national level, the Ministry responsible for agroforestry will oversee coordination and implementation. Given that agroforestry is a devolved function, county governments will integrate the proposed strategies into their County Integrated Development Plans (CIDPs) and lead implementation, monitoring, and reporting efforts. Counties will also coordinate the efforts of Non-State Actors (NSAs) within their jurisdictions. This multi-tiered approach will ensure a well-coordinated and effective rollout of agroforestry initiatives nationwide.

By providing a clear vision, strategic direction, and a structured resourcing framework, this strategy aims to enhance agroforestry development across the country. We are confident that the interventions outlined will contribute to improved livelihoods, a healthier environment, and a more sustainable future for present and future generations.

A handwritten signature in blue ink, appearing to be 'G. Mugambi', written over a white background.

Mr. Gitonga Mugambi, CBS
Principal Secretary
State Department for Forestry

ACKNOWLEDGEMENT



The National Agroforestry Strategy has been prepared through a multi-stakeholder consultative process involving stakeholders across the country. The Technical Working Group (TWG) comprised participants from the National and County Governments, private sector, community farmer association, NGOs as well as non-state actors. This strategy being the first of its kind in the Country, we celebrate all individual efforts put up by partners in its development.

We wish to extend our special gratitude to our Cabinet Secretary, Dr. Deborah M. Barasa, for playing a leading role and providing support for the development of this strategy. Special thanks to the Principal Secretary, State Department for Forestry, Mr. Gitonga Mugambi, CBS for providing strategic direction and guidance throughout the development of this strategy.

We are grateful to our stakeholders and development partners, particularly FAO, JICA, PELUM Kenya, Vi-Agroforestry, AWAK, CIFOR-ICRAF, and FFSPAK for providing both financial and technical support towards the formulation of this strategy.

We also appreciate Heads of Departments, SAGAs and the Ministry staff for their leadership and commitment during the process. County Governments and the Council of Governors (CoG) played a critical role in the successful development of this strategy. Equally important was the contribution of the Technical Working Group, whose tireless efforts and adherence to strict timelines ensured that the strategy reflects the aspirations of the Ministry, the Government, and the People of Kenya.

A handwritten signature in blue ink, consisting of a large, stylized 'G' followed by several loops and a long horizontal stroke.

Mr. George Tarus
Secretary, Forest Development
State Department for Forestry

ABBREVIATIONS

ACRONYMS	MEANING
ABS	Access and Benefit Sharing
AFA	Agriculture and Food Authority
AFEAS	Agroforestry Extension and Advisory Services
AFR100	African Forest Landscape Restoration Initiative
ANR	Assisted Natural Regeneration
AIDS	Acquired Immunodeficiency Syndrome
ANAFE	African Network for Agriculture, Agroforestry and Natural Resources Education.
AgGDP	Agricultural Gross Domestic Product
ASALs	Arid and Semi-Arid Lands
ASTGS	Agricultural Sector Transformation and Growth Strategy
AWAK	Association of Women in Agriculture in Kenya
CAADP	The Comprehensive African Agriculture Development Programme
CBD	Convention on Biological Diversity
CECM	County Executive Committee Members
CETRAD	Centre for Training and Integrated Research in ASAL Development
CG	County Governments
CoG	Council of Governors
COMESA	Common Market for Eastern and Southern Africa
CPPMD	Central Planning and Project Monitoring Department
CSA	Climate-Smart Agriculture
CSO	Civil Society Organization
CSPs	County Spatial Plans
CTCN	Climate Technology Center and Network
DRSRS	Department of Resource Surveys and Remote Sensing
DSWG	Donor Sector Working Group
EAC	East African Community
EAS	Extension and Advisory Services
EMCA	Environmental Management and Coordination Act
FAO	Food and Agriculture Organization of the United Nations
FCMA	Forest Conservation and Management Act
FFSPAK	Farm Forestry Smallholder Producers Association of Kenya
FMNR	Farmer Managed Natural Regeneration
F/PMNR	Farmer/Pastoralist Managed Natural Regeneration
GCF	Green Climate Fund

GDP	Gross Domestic Product
GEF	Global Environment Facility
GIZ	German Agency for International Cooperation
GoK	Government of Kenya
HIV	Human Immunodeficiency Virus
ICT	Information and Communication Technology
ICRAF	International Centre for Research in Agroforestry also World Agroforestry
IEC	Information Educational and Communication
IFAD	International Fund for Agricultural Development
IPCC	Intergovernmental Panel on Climate Change
ITK	Indigenous Technical Knowledge
JICA	Japan International Cooperation Agency
KALRO	Kenya Agriculture and Livestock Research Organization
KAM	Kenya Association of Manufacturers
KBA	Kenya Bankers Association
KEFRI	Kenya Forestry Research Institute
KENAFF	Kenya National Farmers Federation
KEPSA	Kenya Private Sector Alliance
KFS	Kenya Forest Service
KIRDI	Kenya Industrial Research and Development Institute
KNBS	Kenya National Bureau of Statistics
KTDA	Kenya Tea Development Agency
M&E	Monitoring and Evaluation
MoALD	Ministry of Agriculture and Livestock Development
MCMSMD	Ministry of Cooperatives and Micro, Small and Medium Enterprises (MSMEs) Development
MDF	Medium Density Fiberboard
MEACARD	Ministry of East African Community, Asals and Regional Development
MECCF	Ministry of Environment, Climate Change, and Forestry
MTPs	Medium Term Plans
NACOFA	National Alliance of Community Forest Associations
NARS	National Agricultural Research System
NCCAP	National Climate Change Action Plan
NDC	Nationally Determined Contributions
NEMA	National Environment Management Authority
NETFUND	National Environment Trust Fund
NFP	National Forest Programme
NIMES	National Integrated Monitoring and Evaluation Systems

NGOs	Non- Governmental Organizations
NLC	National Land Commission
NRT	Northern Rangeland Trust
PES	Payment for Ecosystem Services
PELUM	Participatory Ecological Land Use Management
PESTLEG	Political, Economic, Social, Technology, Legal, Environmental and Governance
PWD	Persons with disabilities
RCMRD	Regional Centre for Mapping of Resources for Development
REDD	Reducing Emissions from Deforestation and Forest Degradation
RDAs	Regional Development Authorities
R&D	Research and Development
SAGAs	Semi-Autonomous Government Agencies
SSA	Sub Saharan Africa
SDARD	State Department for ASALs and Regional Development
SDECC	State Department for Environment and Climate Change
SDF	State Department for Forestry
SDGs	Sustainable Development Goals
SDGAA	State Department for Gender and Affirmative Action
SDLPP	State Department for Lands and Physical Planning
SWOT	Strengths, Weaknesses, Opportunities and Threats
TWG	Technical Working Group
UNCCD	United Nations Convention to Combat Desertification
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WSI	Water Sanitation Irrigation



GLOSSARY

Agro ecological zone	A land resource mapping unit, defined in terms of climate, landform and soils, and/or land cover, and having a specific range of potentials and constraints for land use
Agroforestry	A dynamic, ecologically based, natural resource management system that, through the integration of trees in farm-and rangeland, diversifies and sustains smallholder production for increased social, economic and environmental benefits.
Agroforestry systems	Multifunctional systems that can provide a wide range of economic, sociocultural, and environmental benefits.
Biodiversity	The total diversity of all organisms and ecosystems at various spatial scales (from genes to entire biomass)- which is integral to a healthy and stable environment.
Biodiversity conservation	The protection, upliftment, and management of biodiversity to derive sustainable benefits for present and future generations.
Buffer zones	Designated areas used to protect sensitive land patches (e.G. Wetlands, wildlife reserves) from negative external pressures.
Carbon sequestration	The process of removing carbon from the atmosphere and depositing it in a reservoir, such as the soil or trees.
Climate action	Stepped-up efforts to reduce greenhouse gas emissions and strengthen resilience and adaptive capacity to climate-induced impacts, including climate-related hazards in all countries; integrating climate change measures into national policies, strategies and planning; and improving education, awareness-raising and human and institutional capacity with respect to climate change mitigation, adaptation, impact reduction and early warning.
Climate change	A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere, and which is in addition to natural climate variability observed over comparable time periods.
Climate shock	The realizations of highly unexpected events that cause welfare losses and encompasses i) unexpectedness of occurrence, ii) magnitude or size of impact, iii) disproportionate harm to individuals or communities with high vulnerability and low resilience; iv) exogenous origin (i.E., Beyond individual or local control); and v) physical or psychological strain to one or more individuals due to that stress.
Climate smart agriculture	Agriculture that sustainably increases productivity, resilience (adaptation), reduces/removes greenhouse gases (mitigation), and enhances the achievement of national food security and development goals

Climate variability	The variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) Of the climate at all spatial and temporal scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability).
Climate resilience	The ability to prepare for and respond to hazardous events, trends or disturbances related to climate.
Commercialization	The process of bringing new services and products to the market.
Coping	The use of available skills, resources, and opportunities to address, manage, and overcome adverse conditions, with the aim of achieving basic functioning in the short to medium term.
Degraded land	A land that has lost some degree of its natural productivity due to human-caused processes.
Desertification	The persistent degradation of dryland ecosystems by climate change and mainly human activities: unsustainable farming that depletes the nutrients in the soil, mining, overgrazing (animals eat away grasses and erode topsoil with their hooves) and clear-cutting of land, when the tree and plant cover that binds the soil is removed.
Dissemination	The interactive process of communicating knowledge to target audiences so that it may be used to lead to change.
Ecological zone	A zone or area with broad yet relatively homogeneous natural vegetation formations, similar (not necessarily identical) in physiognomy.
Economies of scale	The reduction in cost that occurs when companies/farms increase production.
Ecosystem	The complex system of plant, animal, fungal, and microorganism communities and their associated non-living environment interacting as an ecological unit.
Ecosystem services	Ecological processes or functions that have monetary or non-monetary value to individuals or society at large resulting from their practice of agroforestry and/or other conservation practices. For example, provisioning services (food and medicinal products, bioenergy, timber and fodder), regulating services (microclimate modification, erosion control and soil conservation, mitigation of desertification, carbon sequestration and pest control), supporting services (biodiversity conservation, soil enrichment, crop pollination) and cultural services (recreation, spiritual enrichment and aesthetic experience).
Environmental risks	The “actual or potential threat of adverse effects on living organisms and the environment by effluents, emissions, wastes, resource depletion, etc., Arising out of an organization's activities.

Ecotourism	Responsible travel to natural areas that conserve the environment sustains the wellbeing of the local people, and involves interpretation and education
Environmental health	The condition of the environment in a particular region especially as regards to ecological diversity or pollution.
Extension	Extension services, also called rural advisory services, refer to the different activities which provide the information, guidance and services that farmers and other rural actors need to develop their knowledge, skills and practices and improve their livelihoods.
Financing mechanism	The way in which a business, organization, or program receives the funding necessary for it to remain operational such as revenue collection, grants or donations, loans, fund-raising among others.
Food and nutrition security	A state that exists when all people, always, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.
Gender	A social and cultural construct, which distinguishes differences in the attributes of men and women, girls and boys, and accordingly refers to the roles and responsibilities of men and women.
Germplasm	Collection of genetic resources for an organism which can be any plant part used for regeneration such as seeds, cuttings, scions, pollen, and/or symbionts necessary for a plant's survival.
Greenhouse gases (ghgs)	The atmospheric gases responsible for causing global warming and climate change. The major ghgs are carbon dioxide (co ₂), methane (ch ₄) and nitrous oxide (n ₂ o). Less prevalent but very powerful greenhouse gases are hydrofluorocarbons (hfc _s), perfluorocarbons (pfc _s) and sulphur hexafluoride (sf ₆).
Gross domestic product	The total value of goods produced, and services provided in a country for one year.
Incentives	Policy instruments that increase the comparative advantage of agroforestry and thus stimulate investments in agroforestry. This includes incentives in research and extension, which are important elements in supporting agroforestry development; and sectoral and macro-economic policies which create much of the general investment climate and heavily influence the economic behavior of individuals and corporations.
Innovation	In the context of agroforestry development, an idea, practice, or object that is perceived as new by an individual or other unit of adoption. This may involve some combination of problem/opportunity identification, the introduction, adoption or modification of new ideas relevant to organizational needs, the promotion of these ideas, and the practical implementation of these ideas.

Indigenous knowledge	Understandings, skills and philosophies developed by local communities with histories and experiences with their natural surroundings.
Land degradation	An alteration to all aspects of the natural (or biophysical) environment by human actions, to the detriment of vegetation, soils, landforms and water (surface and subsurface, terrestrial land marine) and ecosystem.
Land tenure	The possession or holding of the many rights associated with each parcel of land. Ownership or user rights are not static because such rights can be subdivided or transferred by the holder.
Landscape	A social-ecological system that consists of a mosaic of natural and/or human-modified ecosystems, often with a characteristic configuration of topography, vegetation, land use, and settlements that is influenced by the ecological, historical, economic and cultural processes and activities of the area.
Livelihood	The methods and means of making a living in the world. The concept revolves around resources such as land/property, crops, food, knowledge, finances, social relationships, and their interrelated connection with the political, economic, and sociocultural characteristics of an individual community. A livelihood consists of capabilities, assets, and activities that are required for living.
Marginalized groups	It means a group of people who, because of laws or practices before, on, or after the effective date, were or are disadvantaged by discrimination on one or more of the grounds in article 27 (4) of the Kenya constitution 2010. These include people living with disabilities (PWD), with chronic ailments such as hiv and aids, indigenous communities living within the forest, youths, children, women, elderly people (both men and women), and single headed households.
Nationally appropriate mitigation action	Any action that reduces GHG emissions in developing countries and is prepared under the umbrella of a national governmental initiative.
Nitrogen –fixation	A biological process in which the nitrogen gas is converted into a usable form for plants and other microbes.
Payment for ecosystem services	An economic instrument designed to provide positive incentives to users of agricultural land and those involved in coastal or marine management purposely to encourage continued or improved provision of ecosystem services, which in turn, will benefit the whole society.
REDD+	An international framework whose name stands for 'reducing emissions from deforestation and forest degradation, the conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks.

Resilience	The ability of a system and its component parts to anticipate, absorb, accommodate and/or recover from the effects of a hazardous event in a timely and efficient manner
Social inclusion	The process of improving the terms of participation in society, particularly for people who are disadvantaged, through enhancing opportunities, access to resources, voice and respect for rights.
Soil health	Also referred to as soil quality, is the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals and humans.
Start-up capital	The money a business owner needs to start up a new business. This funding helps the business meet its initial costs.
Subsidy	The direct or indirect payment to individuals or firms, usually in the form of a cash payment from the government or a targeted tax cut. Subsidy is typically given to remove some type of burden and is often considered to be in the overall interest of the public, given to promote a social good or an economic policy.
Tree tenure	The right of owning and using trees. Components of tree tenure include the right to own and inherit trees, the right to plant trees, the right to use trees and the right to cut down and sell trees.
Value chain	The entire system of production, processing and marketing of a product, from inception through to the finished product to waste disposal.
Value chain development	Focuses on deliberate efforts to create and strengthen win-win relationships between two or more chain actors aiming to result in win-win outcomes that can sustain the relationships over time. In addition, at the heart of vcd, are efforts to strengthen mutually beneficial linkages among value chain actors so that they work together to take advantage of market opportunities.
Vulnerability	The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes.
Vulnerable group	This is a population that has some specific characteristics that make it at higher risk of falling into poverty than others living in areas targeted by a project such as the elderly, the mentally and physically disabled, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, hiv/aids- affected individuals and households, religious and ethnic minorities and, in some communities or societies, women.

EXECUTIVE SUMMARY

Agroforestry refers to a set of land-use practices that deliberately integrate woody perennials such as trees, shrubs, palms, herbs, fruit trees, bamboos among others, with agricultural crops and/or livestock, either in a temporal sequence or spatial arrangement. Whereas these practices are diverse, they share a common focus on fostering interactions between trees and agricultural activities, including livestock rearing, to generate economic, ecological, and social benefits.

The common agroforestry systems in the country can be classified as follows:

Agro-silvicultural	Systems where non-woody crops are integrated with trees.
Silvo-pastoral	Systems that integrate trees and livestock.
Agro-silvopastoral	Systems that integrate crops, livestock, and trees.
Entomo-silvicultural	Systems that integrate insects and trees, including specialized forms such as api-silviculture (trees and bees) and sericulture (silkworms and trees).
Aqua-silvicultural	Systems that integrate fish and trees.

Agroforestry systems can also be classified on a functional basis: i.e. productive systems for food, fodder, and wood provision or protective/conservation systems for ecosystem services.

Tree cover on agricultural land is estimated to have increased globally by 3 percent and 1 percent in Sub-Saharan Africa (SSA). In SSA, agroforestry is estimated to account for approximately 30 percent of total land use. Although distribution data remains scanty, recent estimates indicate that by 2010 more than 43 percent of the world's agricultural land had a tree cover exceeding 10 percent, directly contributing to the employment of more than 18.12 million people and supporting more than 45.15 million jobs through indirect and induced impacts. In terms of economic contribution, agroforestry accounts for more than USD 1,298 billion towards the global GDP.

Persistent challenges such as fuelwood and timber shortage, deforestation, land degradation, and climate change, among others have, over time, heightened the focus on initiatives that promote agroforestry development. Agroforestry is recognized in various International and National policy fora and conventions for its role in advancing climate smart agricultural practices by addressing problems associated with intensive farming and enhancing the provision of ecosystem services.

This strategy aligns with the Constitution of Kenya (2010), which seeks to achieve at least 10 percent tree cover and ensure provision of the right to a clean and healthy environment to every citizen. It also supports the implementation of the National Forest Policy (2023), which underscores the importance of agroforestry and farm forestry in forest conservation and management.

Implementation of the strategy will contribute to the achievement of global commitments and Multilateral Environmental Agreements (MEAs) ratified by Kenya. These includes the United Nations Framework Convention on Climate Change (UNFCCC), the Intergovernmental Panel on Climate Change (IPCC), the Convention on Biological Diversity (CBD), United Nations Convention

to Combat Desertification (UNCCD), The Paris Agreement, African Forest Landscape Restoration Initiative (AFR100), and the Sustainable Development Goals (SDGs) 2030 framework, particularly SDG 1,2,13 and 15.

Despite a growing recognition of the potential impact of agroforestry in livelihood improvement and landscape restoration, its integration into policies, legal and institutional frameworks remain insufficient. Formalization and utilization of the practice in the mainstream forestry and agriculture sector is still inadequate. This is largely due to the diverse pathways and hard-to-measure characteristics of agroforestry—particularly its ecological benefits—combined with the fragmented, sector-specific approaches that have long dominated Kenya’s agriculture and forestry sectors.

The strategy will contribute to the realization of the Bottom-Up Economic Transformation Agenda (BETA) 2022-2027, which seeks to restore approximately 5 million Hectares (20,000 km²) through the establishment of agroforestry woodlots in Kenya’s arid and semi-arid (ASALs). This effort will support the national goal of achieving 30 percent tree cover by 2032. In alignment, the National Landscape and Ecosystems Restoration Strategy (2023-2032) assigns agroforestry a restoration target of 30 percent of the targeted 10.6 million hectares for rehabilitation.

The overall objective of the strategy is to promote agroforestry development in the country for sustainable land use, enhanced provision of ecosystem goods/services, and improved livelihoods for all Kenyans

Specifically, the strategy aims to:

1. Promote awareness creation and enhance coordination of agroforestry development in the country through harmonization of legal and institutional frameworks both at national and county levels, and through establishment of robust partnerships.
2. Enhance investment and financing for agroforestry development in the country.
3. Strengthen research, technology development, innovation, and knowledge management in agroforestry.
4. Create incentive frameworks to strengthen agroforestry-based value chains, support agroforestry-related ecosystem services, and increase private sector participation in agroforestry.
5. Enhance community livelihoods resilience to climate change through Agroforestry.
6. Create an enabling environment for increased participation of women, youth, children and marginalized groups in agroforestry development.

The development of the National Agroforestry Strategy started in 2018 under the leadership of the Ministry of Agriculture and Livestock Development but was not finalized. Through the Executive Order No 1 and 2 of 2023, agroforestry was designated as a function of the State Department for Forestry (SDF) under the Ministry of Environment, Climate Change and Forestry. In December 2023, the Ministry appointed a Technical Working Group composed of representatives from both State and Non-State Actors to spearhead the development of this strategy.

The strategy development process involved both physical and virtual meetings, during which members collaboratively drafted the strategy and regularly shared it for feedback and inputs. The agreed-upon draft was then presented to stakeholders for public participation before the validation and eventual launch.

Strategic issues facing agroforestry development in the Country, and the measures to address them have been categorized under six key thematic areas, referred to as pillars. These are:

- Policy and Legal Frameworks.
- Finance and Investment.
- Education, Research, Innovation, and Knowledge Management.
- Agroforestry Value Chains Development.
- Climate Change Action.
- Gender, Youth and Social Inclusion.

The strategy addresses agroforestry value chain development by proposing the establishment and operationalization of model agroforestry nurseries to enhance the production and supply of quality germplasm of diverse agroforestry species; increasing awareness on the value of agroforestry ecosystem services; and promoting the wood fuel/biomass energy value chain. This will be achieved through certification of seed sources, adoption of value addition and processing technologies to produce high-value timber, and promotion of uptake of improved technologies for sustainable production and utilization of biomass energy. The strategy also promotes the use of gender-friendly infrastructure and equipment, as well as the formation of agroforestry associations targeting women, youth and marginalized community groups.

The Coordination, Monitoring and Evaluation of activities will be done at various levels. Nationally, the Ministry of Environment, Climate Change and Forestry through the State Department for Forestry, will coordinate the implementation of the strategy. Since implementation of agroforestry is a devolved function, counties will integrate the outlined strategies into their County Integrated Development Plans (CIDPs), implement them, and monitor and report on the progress. Counties will also oversee and monitor agroforestry activities by Non-State Actors (NSAs) within their jurisdiction.

The National Agroforestry Strategy therefore aims to accelerate the adoption of agroforestry, enabling many smallholder farmers to sustainably derive direct benefits while building resilience to climate change effects and impacts. It also identifies gender and social inclusion as an important aspect for the successful implementation of the strategy. Ultimately, the strategy will contribute to sustainable land use management, safeguard the integrity of Kenya's agro-ecological landscapes, and improve livelihoods, offering Kenyans opportunities to harness agroforestry for socio-economic development.

1.0 INTRODUCTION

1.1 Defining Agroforestry and its evolution

Agroforestry refers to the set of land use practices that involve the deliberate integration of woody perennials (trees, shrubs, palms, herbs, fruits trees, bamboos among others) and agricultural crops and/or animals, in some form of a temporal sequence or spatial arrangement (Dagar and Tewari 2016; Sinclair 1999). Over the years, agroforestry has evolved in different parts of the world, dating back to the practice of shifting cultivation in the Middle Ages in Europe. Today, agroforestry is a widespread practice globally.

Tree cover on agricultural land is estimated to have increased by three and one percent globally and in Sub-Saharan Africa (SSA) (Zomer et al., 2014). Although data on distribution is scanty, recent estimates by ICRAF show that more than 43 percent of agricultural land globally had a tree cover exceeding 10 percent by 2010 (HLPE 2017; Zomer et al., 2016). This translates into the forestry sector directly employing more than 18.12 million people and supporting more than 45.15 million jobs through indirect and induced impacts. It also contributes more than USD 539 billion directly and over USD 1,298 billion in total to the world's GDP (Yanshure et al., 2019).

In SSA, agroforestry is estimated to account for approximately 30 percent of total land use (Agroforestry Network, 2018). Persistent challenges related to the sector such as fuelwood and timber shortage, deforestation, land degradation, and climate change, among others, have over time led to increased focus on agroforestry research and development (van Noordwijk et al., 2018). This has also led to the emergence of higher learning institutions offering courses in agroforestry, increased adoption of a wide range of agroforestry technologies and investment in agroforestry development by governments, donors, community, non-governmental organizations on different aspects of agroforestry (Jacobi et.al., 2017).

In Kenya, agroforestry has been embedded in forestry and agricultural extension and has undergone several transformations. The Sessional Paper No. 1 one of 1968 of the forest policy of Kenya supported and facilitated farmers through the distribution of seeds and seedlings, as well as provision of technical advice. The initial approach in the early 1970s focused on mass production of seedlings for free distribution to farmers. However, the exercise became costly due to transport and other logistical challenges. As a result, adoption of the technologies remained low, despite the increase in the number of nurseries.

In practice, agroforestry combines agriculture and forestry sciences (Stiebert et al., 2012; Nair, 2021). While practices are diverse, they share a deliberate focus on the interactions between trees and agricultural activities in production, on the one hand, and the ensuing economic, ecological, and social benefits on the other hand (HLPE 2017; Agroforestry Network 2018). Furthermore, agroforestry is practiced in diverse landscapes - small to large landholdings; farm, range, and forest lands - and can be tailored to suit different socio-cultural settings and agroecological zones.

<ul style="list-style-type: none"> ● The structure (Composition and/or arrangement of components) 	<p>Based on composition of components, five main agroforestry systems have been identified;</p> <ul style="list-style-type: none"> i. Agro-silvicultural, where non-woody crops are integrated with trees. ii. Silvo-pastoral, for systems that integrate trees and livestock. iii. Agro-silvopastoral, for systems that integrate crops, livestock, and trees; iv. Entomo-silvicultural, for systems that integrate insects and trees (including specialized systems such as apiculture (trees and bees) and sericulture (silkworms and trees)); v. Aqua-silvicultural/Silvo-fisheries, for systems that integrate fish and trees (Agroforestry Network 2018).
<ul style="list-style-type: none"> ● Functional basis 	<p>This classifies agroforestry systems into two main categories, productive (e.g. food, fodder, and wood) and protective (e.g. ecosystem/intangible services) functions.</p>
<ul style="list-style-type: none"> ● Based on Agro Ecological zones 	<p>This classifies agroforestry as humid/sub humid, semi-arid/arid, and highlands systems based on ecological zones.</p>
<ul style="list-style-type: none"> ● The degree of market-orientation 	<p>is also used to classify agroforestry systems as commercial, intermediate, and subsistence.</p>

These diverse criteria are relevant in appraising, designing, and evaluating agroforestry development interventions.

Despite a growing recognition of the positive (and potential) impact of agroforestry in livelihoods and landscape restoration, its embedding in policies, legal, and institutional framework has been inadequate. Formalization of the practice in the mainstream agricultural and forestry knowledge systems and policy, legal, and institutional framework has lagged. This has been attributed to, among others, the diverse pathways, and difficult-to-measure characteristics of impacts of agroforestry - especially ecological benefits - (Dawson et al., 2013; FAO 2013), and the fragmented, sector specific approach that has dominated agricultural and forestry policies in many countries (Agroforestry Network 2018), and particularly in Kenya (Poulton and Kanyinga 2014). Agroforestry – as a system interacting with multiple sectors – often experiences policy and institutional conflicts and omissions. As a result, human, infrastructural, and institutional (innovation) capacities for scaling up agroforestry are underdeveloped in most developing countries, especially in Africa (FAO 2013; Scherr and Franzel 2002).

1.2 General Benefits and Interactions of Agroforestry with Other Sectors

Agroforestry provides a wide array of ecosystem goods and services which support livelihoods. In the agriculture sector, it plays a critical role by providing essential support functions. Some of the key benefits to the agriculture sector include control of weeds, pathogens, insects, and nematodes (Sarvade & Singh, 2014). Recommended practices using appropriate trees and shrubs offers a great potential for sustainably enhancing crop yields through soil fertility improvement by use of nitrogen-fixing leguminous trees. Agroforestry systems enhance agricultural yields by up to 300% and significantly contribute to carbon sequestration, and soil moisture retention (Ndufa et al., 2009; Kuyah et al., 2023). These systems also enhance nutrient cycling through litterfall, increased micro-organism activity, reduced nutrient leaching, and biomass addition.

Agroforestry also supports biodiversity conservation and habitat provision, biological pest control, and shade provision, protecting crops from strong sunlight, winds and rain, thereby improving farm productivity. It provides forage (fruits and pods), fodder, and shade to both livestock and crops, boosting productivity through microclimate regulation. Live fences in agroforestry systems prevent livestock encroachment on farmlands and help demarcate boundaries. Farmers can generate cash income from surplus produce sales and save on items they would otherwise purchase. Agroforestry thus offers farmers an opportunity to diversify livelihood sources through increased production and productivity (Willett et al., 2019)

In Sub-Saharan Africa, agroforestry contributes directly and indirectly to employment, income generation, and livelihood improvement, especially among smallholder farmers. The forestry sector in Kenya, including agroforestry, provides direct employment to around 300,000 people and indirect employment to millions more through related industries such as timber processing, charcoal production, and non-timber forest products. There exist many potential enterprises along agroforestry value chains. Entrepreneurs establish tree nursery enterprises for production and sale of seedlings thus contributing to employment and income generation in the economy. Tree growers earn from the sale of surplus agricultural produce in the short term as they nurture their trees to maturity. Fruits from fruit trees grown are also sold to earn income to the tree growers. As the demand for sustainable practices continues to grow, the carpentry and woodworking industry is embracing a new trend by utilizing agroforestry trees (Ejore et al 2020).

Agroforestry trees offer unique advantages for sustainable woodworking projects such as; rustic furniture, decorative home accessories (such as wall art, shelves, and picture frames), cutting boards and serving platters, sculptures and art pieces, outdoor projects (such as garden benches, planters, or even decks), custom cabinetry, woodturning (bowls, vases, or other turned items from wood), children's toys, customized gifts (such as engraved cutting boards engraved or wooden jewelry boxes) and live edge furniture.

Agroforestry also provides high-value products and services to niche markets such as fresh fruits, vegetables, fish and meat products, fuelwood, cut flowers, ornamentals and construction materials to these establishments which often fetch higher prices due to their sustainability component. Quandt & McCabe (2017) found that agroforestry can be used as a strategy to increase resilience during and after conflicts by providing income and food, offering shelter, and supplying construction materials for rebuilding homes. Contribution of agroforestry in ecosystem services cannot be underrated,

from provision of food, fodder, forage, wood fuel and water recharge - all these support peaceful coexistence among communities, wildlife and people, thereby reducing conflict and mitigating climate-related human displacement.

Agroforestry complements forestry development through enhancement of tree and forest cover in farmlands and rangelands across Programs that promote domestication of high-value and endangered species, tree and forest protection, landscapes/ecosystem restoration, conservation, and sustainable forest management contribute to increased forest and tree cover in the country. Agroforestry systems can also act as buffers to protect natural forests from encroachment by clearly demarcating boundaries while generating income, employment and livelihood improvement to the forest-adjacent communities. In addition, agroforestry boosts the supply of forestry products and services such as timber, poles and non-wood forest products, helping to meet the rising demand and address forest-related challenges associated with population growth, urban expansion, forest fires, illegal logging, and grazing.

Development of Trade and Industry is another area positively impacted by agroforestry development in the country. The sector provides raw materials for industries such as timber, poles and fuel wood which are used as raw materials in the construction and manufacturing sector i.e. paper and pulp industry. Agroforestry-related products such as MDF and plywood are widely used in furniture and construction. Some tree species, like sandalwood, contain essential oils used in pharmaceutical and cosmetic industries. Other non-wood forest products such as fruits, gums and resins, latex, nuts, and oils, are processed and value-added for both local and export markets, thereby driving growth in industries and trade. For instance, gum Arabic from *Acacia senegal*, mainly found in the Kenya's ASAL regions, is used in foods, beverages, confectionery, and numerous industrial applications as a stabilizer. Locally, certain woods are traditionally used to smoke containers used for milk fermentation. Through value addition, processing and marketing of agroforestry products, Kenya can expand foreign exchange earnings, create jobs, raise incomes, enhance food and nutrition security, and reduce rural-urban migration.

In the fisheries sector, trees play an important environmental role by providing shade, reducing soil erosion, increasing water infiltration, and flood mitigation while ameliorating soil chemical and physical structure. Practices such as aqua-silviculture or silvo-fisheries are carried out along river or stream banks, on the edges of lakes and ponds. Mangrove conservation along the coastline creates breeding grounds for fish species that lay eggs under their stilt roots. For the black tiger shrimp (*P. monodon*) pond culture, an appropriate amount of mangrove leaf litter supplied into the pond improves the nutrition of the shrimps and their color enhancing their prices (Alam et al., 2022).

Globally, it is estimated that energy production will need to increase by 60% by 2050 to meet the world's demand under a business-as-usual scenario (N. Sharma, 2016). Currently, 2.7 billion people depend on traditional fuels (e.g. firewood, charcoal, and dung) for cooking. In Kenya, at least 70% of the rural population depend on biomass for energy (Kiplagat et.al., 2011; Namaswa et.al., 2022). Sustainable Development Goal 7 calls for universal access to affordable, reliable, sustainable, and modern energy. Agroforestry can address this by improving access to several bioenergy products, including efficient solid biomass, biogas, liquid biofuels and dendro-power. The bioenergy sector also contributes to income, employment and livelihood improvement. When integrated with improved



kilns and stoves, agroforestry can sustainably support wood fuel production at household levels, reducing forest harvest pressures. In addition, agroforestry systems can also significantly contribute to modern alternatives to cooking fuel, such as biogas produced from waste biomass materials.

Agroforestry further contributes to improved health and nutrition in the economy, according to the World Health Organization (WHO) about 80% of Africa's population uses some form of traditional herbal medicine, with the global herbal medicine estimated at US\$100 billion (Khan & Iqbal Ahmad, 2019). Despite the huge monetary value, the herbal medicine industry still relies heavily on collection from the wild, which is under threat from over exploitation, land use change and degradation. Therefore, agroforestry provides an alternative by enabling communities to domesticate the wild herbal plants. In addition, agroforestry systems support ecosystem services that help control pests and vector-borne diseases, maintain predator–prey balances, and ensure air and water purification, thus fostering a healthier environment for humans, animals, and plants.

Agroforestry contributes significantly to climate change mitigation and adaptation. It enhances carbon sequestration in soils and biomass, reduces greenhouse gas emissions, and substitutes fossil energy through renewable bioenergy. Forests provide environmental goods and services including water, biodiversity conservation, soil erosion control, wildlife habitat and corridors, ecosystem services, maintenance and improvement of landscapes. Forests are credited with strengthening community resilience to climate change. Utilization of vibrant multipurpose agroforestry tree species contributes to landscape restoration (riparian areas, wetlands and watersheds and degraded areas), livelihood improvement, socio-economic and cultural development and climate change adaptation and mitigation for the benefit of the present and future generations.

Agroforestry systems improve adaptation and resilience to natural disasters such as landslides and flooding (van Noordwijk, Hairiah, Tata, & Lasco, 2019). Trees planted in riparian and degraded lands stabilize soils, preventing landslides and debris flows. Agroforestry has the capacity to mitigate negative climate change effects thus reducing the negative effects of extreme climate related disasters. For example, during the 2004 Indian Ocean Tsunami in Indonesia where more than 200,000 people were severely impacted, mangrove forests that stood between people in the hinterland and the coast provided protection from the wave impact by absorbing a larger part of the momentum thus saving property and life (van Noordwijk et al., 2019). Similarly, trees planted in sloped farmlands anchor soil layers, shifting the threshold at which landslides occur when soil gradually accumulates over time. Experience has shown that the ability of farmers to recover from extreme climatic shocks is closely linked to levels of farm biodiversity which is enhanced on agroforestry systems (FAO 2011; Mulugeta 2014).

The above review demonstrates that agroforestry offers multiple benefits to the economy ranging from employment and income generation, improved food security, trade and industry expansion, to climate resilience, biodiversity conservation and disaster risk reduction among others. Despite these benefits, agroforestry is not adequately practiced as compared to the conventional agriculture and forestry. This may be attributed to limited policy focus, inadequate support for commercialization of value chains, and reliance on traditional, labor-intensive practices.. There is therefore a clear need for strategic policy interventions to unlock the commercial potential in agroforestry, as outlines in this strategy.

1.3 Contribution of agroforestry to economic development of Kenya

The Gross Domestic Product of Kenya stood at KES 10.4 trillion in 2023 (GoK, 2024). Out of this, the agriculture sector contributed 20% of the value, and another 27% indirectly through linkages with other sectors. It also employed more than 40% of the total population and 70% of the rural population (GoK, 2023). Forestry, on the other hand, was estimated to have contributed 3.6% (USD 365 Million) to the country's GDP. These, however, did not include the contribution of forestry to household wood energy (charcoal production), non-timber forest products, and ecosystem services such as water supply, surface runoff regulation and carbon sequestration (GoK, 2024; WAVES Partnerships, 2024).

Kenya is predominantly arid and semi-arid with only 20% of the total land area being of high to medium potential suitable for rain fed agriculture. Most of the farming households (98%) are small-scale with an average land size of 1.2 Ha. They are mainly found in the high potential areas and occupy 46% of the total farmed area. The medium farms (20 Ha on average) constitute 1.9% of the farming households and 15% of the total land area while large farms averaging 77.8 Ha account for only 0.1% of farm holdings and occupy 39% of the total agriculture land area in Kenya. Over the years, arable land per capita has declined from 0.42 Ha in 1961 to 0.11 Ha in 2020 (World Bank, 2021). Due to the limited land size for many farming households and the multiple household needs such as food, shelter, and incomes, most smallholder farmers integrate both crop and or livestock production with tree growing in the same parcels of land. This type of land use system (Agroforestry) presents great potential for increasing productivity of smallholder farming systems, through restoration of agricultural landscapes, enhanced tree cover, as well as supply of ecosystem services. Its uptake by smallholder farmers in Kenya, however, remains low at approximately 12 percent (KIPPRA, 2017). Based on the above statistics, agroforestry systems are estimated to directly contribute approximately 2.8% of the country's GDP (USD 2.8 billion). It is recommended that in future, the Ministry responsible for agroforestry and the Kenya National Bureau of Statistics (KNBS) work together to assess the actual contribution of agroforestry to socioeconomic development of the country.

Agroforestry related value chains such as commercial fruit tree production for exports potential for foreign exchange earnings as well as foreign exchange earnings through reduced imports. An analysis of nine (9) key agroforestry related value chains (Table 1) earned the Country KES 21.9 billion as opposed to imported products worth KES 101.98 billion which can be produced locally through upscaling our production (World Bank, 2023). The country has potential to meet this deficit due to the conducive environment. These value chains are, however, not exhaustive and there is need to expand the analysis to include all potentially tradable agroforestry products in the country.



Table 1: 2023 agroforestry-related value chains export earnings and foreign exchange savings

Product	Export Qty-MT	Export Value (1000 USD)	Import Qty-MT	Import Value (1000 USD)
Avocado	122,580.97	140,939.91	22.70	3.30
Mango	28,589.63	16,359.77	6.70	11.18
Cashew-nut	431.82	2,328.88	252.00	504.58
Oranges	953.82	687.03	8,124.26	4,635.01
Crude Palm Oil	6,945.08	7,464.19	784,635.68	767,441.21
Lemons	292.01	122.25	764.18	481.21
Papaya	5.15	3.45	0.00	0.00
Apples	616.99	548.20	17,439.37	11,142.25
Coconut	11.24	39.59	477.58	271.08
Total	160,426.71	168,493.27	811,722.46	784,489.82
Total (Mil KES)		21,904.13.00		101,983.68.00

Upscaling and Commercialization of agroforestry-based value chains has the potential to save the country foreign exchange while also contributing to income, food security thus improved livelihoods of smallholder farmers

1.4 Justification and rationale

Kenya's agricultural sector is highly dependent on the natural resource capital which is highly impacted by land degradation. This degradation continues to increase the vulnerability of farmers, the majority of whom are smallholder producers making them less adaptable to shocks. Many agriculturally based economies have few other livelihood strategies and small family farms have little financial Capital to invest in expensive adaptation strategies, thereby increasing the vulnerability of rural, agricultural communities to a changing environment.

Agroforestry has been demonstrated to increase farmers' adaptive capacity by diversifying the smallholder enterprises, while buffering the flow of ecosystem services necessary for sustained productivity and mitigating against climate change. By reducing the risks of climate variability and strengthening resilience, agroforestry offers a cost-effective solution for small-scale farmers. Well-documented and promoted management options are essential to scaling such benefits. Agroforestry systems not only support adaptation to climate variability but also mitigate greenhouse gas emissions through carbon sequestration.

Kenya has made firm commitments under various international conventions, identifying agroforestry as a key pathway to achieving these targets. This includes delivering 60% of the agriculture sector's carbon reduction targets under the National Climate Change Action Plan (NCCAP) and the Nationally Determined Contributions (NDC). Agroforestry has also been prioritized in restoring croplands through the Restoration Opportunities Assessment Methodology (ROAM), which identified opportunities to restore 5.1 million hectares of degraded land by 2030. This strategy will directly contribute to Kenya's obligations under Multilateral Environmental Agreements (MEAs) and the Sustainable Development Goals (SDGs). Agroforestry has significant linkages with SDG 1 (No

Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), SDG 6 (Clean Water and Sanitation), SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 14 (Life Below Water), and SDG 15 (Life on Land). It also aligns with SDG 17, which emphasizes partnerships among governments, the private sector, and civil society — a principle embedded in agroforestry development. At the national level, the strategy supports Vision 2030, the Bottom-Up Economic Transformation Agenda (BETA) 2022–2027, and the National Forest Programme (NFP) 2016–2030, which calls for a national strategy on farm forestry. It advances the objectives of the National Forest Policy (2023), the Forest Conservation and Management Act (2016), and other relevant laws and policies. Agroforestry is recognized as a core strategy in the National Landscape and Ecosystem Restoration Strategy, contributing towards the 15 Billion Tree Growing Programme target by 2032. .

Importantly, the strategy’s implementation period coincides with the UN Decade on Ecosystem Restoration (2021–2030), positioning Kenya to take a leading role in the global agenda to “prevent, halt, and reverse the degradation of ecosystems” (UN/RES/73/284).

1.5 Strategy Development Process

The development of the National Agroforestry Strategy (2025–2035) began in 2018 under the leadership of the Ministry of Agriculture and Livestock Development (MoALD) but was not finalized. Following the issuance of Executive Orders No. 1 and 2 of 2023, the agroforestry development function was placed under the Ministry of Environment, Climate Change and Forestry, State Department for Forestry (SDF). To operationalize this mandate, the Principal Secretary for Forestry constituted a Technical Working Group (TWG) in December 2023, comprising both State and non-state actors..

State Actors representatives in the TWG included officials from the State Departments for Forestry, Environment and Climate Change, Agriculture, Irrigation and Economic Planning, as well as the Council of Governors (CoG) representing County Governments. State agencies were represented were the Kenya Forest Service (KFS), the Kenya Forestry Research Institute (KEFRI), and the dissolved Kenya Water Towers Agency. Farmers were represented by Farm Forestry Smallholder Producers Association of Kenya (FFSPAK). Development partners supporting the process included Food and Agriculture Organization of the United Nations (FAO), the Japan International Cooperation Agency (JICA), Vi-Agroforestry, PELUM- Kenya, Association of Women in Agriculture of Kenya (AWAK), and CIFOR-ICRAF.

A hybrid approach was adopted for developing the strategy, combining physical and virtual meetings. Members worked independently on drafting components of the strategy, then met regularly to review progress and update the document. To maximize efficiency in stakeholder consultation and public participation, the TWG leveraged existing stakeholder forums to present the strategy and gather feedback. In addition, both national and regional stakeholder engagement workshops were convened to validate the strategy and identify areas for improvement.





CHAPTER TWO

2.0 SITUATION ANALYSIS

The following section presents a comprehensive situation analysis of agroforestry development in the country. It examines the current conditions, challenges, and opportunities, providing a foundation for formulating context-specific strategies that are responsive to environmental and economic realities. These strategies are aligned with long-term sustainability goals to ensure the success of agroforestry programs.

The strategy is anchored on six key pillars: Policy, Legal and Institutional Frameworks; Finance and Investments; Education, Research, Innovation and Knowledge Management; Value Chain Development; Climate Change Action; and Gender, Youth and Social Inclusion. These are described in detail below.

2.1 Policy and Legal Frameworks

Historically, agroforestry in Kenya has been implemented under a fragmented policy regime due to its multi-sectoral and cross-cutting nature. Initially, the concept was anchored in the Agriculture Act (CAP 318) and the Agriculture (Farm Forestry) Rules of 2009.

Overtime, agroforestry has gained recognition as a key pathway for achieving the national sustainable development targets, including the country's Nationally Determined Contribution (NDC) commitments, food and nutrition security, improved livelihoods and climate change resilience. This strategy aligns with the policy, legal and institutional frameworks that underpin agroforestry development in Kenya, as summarized in the subsequent sections.



2.1.1. Legal Framework

The Constitution of Kenya, 2010

The Constitution of Kenya, 2010 confers certain rights and responsibilities to all people living in Kenya. As a result, institutions are required to develop, implement and monitor policies, laws, strategies and plans to ensure that the spirit of the Constitution is upheld. Article 42 of the Constitution guarantees every person the right to a clean and healthy environment. Further, Article 69 (1) (b) obligates the state to work to achieve and maintain a tree cover of at least ten percent of the land area of Kenya and consequently, Article 72 requires parliament to enact the requisite legislation.

A major dynamic shaping the policy and institutional landscape is the devolved system of governance. The fourth schedule of the Constitution details the distribution of functions between the National and County governments, with implementation of agroforestry being devolved to the County governments. They include the task of implementing national policies related to the agricultural sector (crops, fisheries and livestock) and some specific policies related to natural resources and environmental conservation such as farm forestry and forestry extension.

The Forest Conservation and Management Act, 2016

The Forest Conservation and Management Act, 2016 is the law governing forest management and sustainability of forest resources in Kenya. The Act classifies forests as public, community and private (Section 30). The community and private forests have a great potential for agroforestry development. The Act is currently being amended to incorporate emerging issues including agroforestry as a key pathway for forestry expansion.

The County Government Act, 2012

The Act gives effect to the devolution principles set out in the Constitution of Kenya, 2010. Article 110 obligates the County government to develop spatial plans indicating the areas designated for conservation and recreation within the county for the protection of forests within their jurisdiction. Section 108 of the County governments Act provides for the County Integrated Development Plan (CIDP), which outlines the county development goals covering a period of five years. Being a devolved function, most of the counties have incorporated agroforestry in their CIDPs.

Table 2a: Other legislation impacting agroforestry in Kenya

No.	Legislation	Impact in agroforestry
1	The Environmental Management and Coordination-EMCA (Amendment) Act, 2015	The Act provides an overarching legal and institutional framework for environmental management. Though the act does not expressly provide for agroforestry development, it addresses issues such as reforestation and afforestation, protection of forests, conservation of energy, planting of trees or woodlots and conservation of biological diversity, which are central to agroforestry development.
2	The Climate Change (Amendment) Act, 2023	The Act provides for enhanced resilience to climate change and low carbon climate development. The significant amendment to the Act includes provisions for the regulation of carbon markets in Kenya. Section 23E (5) (b) (i) & (ii) of the Act provides that in land-based projects such as afforestation/ reforestation, the contribution shall be at least 40% of the aggregate earnings and in non-land-based projects, the contribution shall be at least 25% of the aggregate earnings.
3	The Agriculture and Food Authority Act, 2024	The Act promotes soil and water conservation technologies, regulates vegetation destruction and promotes afforestation/ reforestation on land.
4	Community Land Act 2016	The Act provides for protection of community land rights, ownership and tenure system, procedure for recognition and adjudication of community land, and registration of community lands which are key for agroforestry development since they enhance security of tenure and property rights to agroforestry investments.
5	The Energy Act 2019	The Act provides for energy development, management, and efficient use of renewable energy technologies, including biomass, bioethanol, charcoal, fuelwood, biogas, and municipal waste, among others.
6	The Intergovernmental Relations Act, 2012.	The Act proposes cooperation between the two tiers of government (national and county) for continued prosperity of the nation. This is critical since implementation of agroforestry functions is undertaken within the counties.

2.1.2. Policy and Institutional Frameworks

Kenya Vision 2030

The Vision 2030 aims to transform Kenya into a newly industrialized, middle-income country, providing high quality of life to all its citizens in a clean and safe environment. Sustainable development is a key principle in the economic pillar of Vision 2030. The pillar aims to achieve an average economic growth rate of 10 per cent per annum and sustain the same until 2030. Under the social pillar, environmental quality is among the eight social sectors identified. The pillar seeks to create just cohesive and equitable social development in a clean and secure environment. Farmland and dryland tree planting are identified as flagship projects under the social pillar to advance forest and tree cover in Kenya.

The National Forest Policy, 2023

The National Forest Policy, 2023 provides a framework for improved forest governance, resource allocation, partnerships and collaboration between the National and County governments, the private sector and Non-State Actors on forestry development. It proposes agroforestry as one of the interventions for management of trees outside gazetted forests. The policy proposes investments in farm forestry as a viable economic land use option, including afforesting 10% of public land, establishing standards and a system of certifying quality planting germplasm for agroforestry, incentivizing investments in farm forestry enterprises including fruit tree growing, supporting farm forestry interventions recommended in the agroforestry strategy and promoting partnerships and linkages with landowners to increase tree cover on farm.

The National Forest Programme (NFP) (2016-2030)

The NFP recognizes the importance of farm forestry in the growth of the forest sector. It provides long-term strategies for regulating the rate of deforestation, protecting and restoring forests and increasing the areas under farm forestry and forestry, through sustainable management and development of tree-product value chains. The NFP recognizes agroforestry as one of the key strategies for farm forestry and the role of wood and non-wood forest products in the Kenyan economy.

Bottom-Up Economic Transformation Agenda

The Bottom-Up Economic Transformation Agenda (BETA) 2022-2027 identifies agroforestry as having the greatest potential to increase the country's tree cover beyond the current 12.13%. This is because the highest potential for restoration lies in private and community lands including ASALs. BETA commits to establish 5m acres (20,000 km²) agroforestry woodlots in drylands. Agroforestry is one of the approaches that will contribute to the country's commitment of reducing GHG emissions by 32 percent by 2030 through Climate change impact mitigation, adaptation & resilience. The Constitution also provides for ensuring at least 10 percent tree cover of the total land area.

Medium Term Development Plans (MTPs)

The Fourth Medium Term Plan (MTP IV 2023 – 2027), implementing the Bottom-Up Economic Transformation Agenda (BETA) aims to enhance the tree growing on private and community lands by leveraging on complementarity between forestry and agriculture for environmental conservation and improved household incomes. The government aims to establish commercial forests on private lands including smallholder forestry models and fruit trees; map one (1) million Ha of private/community land and establish one (1) Million Ha for agroforestry. Other commitments include establishment of 375,000 Ha of commercial forest plantations and 350,000 Ha agroforestry farmlands; rehabilitation of 43,000 Ha of degraded landscapes; development of woodlands restoration management plans; establishment of 30,000 Ha of woodlots and 50,000 Ha of commercial bamboo; as well as production of one (1) billion high quality tree seedlings.

The National Landscape and Ecosystem Restoration Strategy (2023 – 2032)

The strategy towards 15 billion tree growing initiative identifies agroecosystems for soil erosion control, soil and water management, food and nutrition security improvement as well as income and livelihood improvements through production and selling of agroforestry related market-based goods

and services. In the strategy, agroforestry is estimated to contribute to the restoration of three (3) million hectares of degraded landscapes by growing 4.2 billion trees including fruit and fodder trees. The three million hectares targeted for restoration under agroforestry represents approximately 30% of the 10.6 million hectares targeted for restoration by 2032.

Agricultural Policy 2021

The National Agriculture Policy 2021 states the importance of advocating for a compulsory establishment of farm forestry where every person who owns or occupies agricultural land shall establish and maintain a minimum of 10% of the land under farm forestry in any suitable configuration. These will help to: promote the establishment and sustainable management of farm forestry; maintain a compulsory farm tree cover of at least 10% on any agricultural land holding; Carbon sequestration and related environmental benefits; conserve water, soil and biodiversity; protect riverbanks, shorelines, riparian and wetland areas; provide fruits and fodder and sustainable production of wood, charcoal and non-wood products.

Other multi-sectoral policies, legislative and institutional frameworks on environment and climate change, provide a basis for the development of the agroforestry strategy. They are summarized in Table 2b.



Table 2b: Other multi-sectoral policies and institutional frameworks impacting agroforestry in Kenya

1.	National Policy of Arid and Semi-Arid Lands, 2012	The policy recognizes that agro-pastoralism and marginal farming are critical to community livelihoods. The policy proposes the strengthening of research and extension systems relevant to rain-fed crop production, including soil and water conservation, organic farming, and agroforestry, to enhance food and nutrition security in asals.
2.	The National Livestock Policy 2019	Aimed at improving the livestock sector and its contribution to food security and livelihoods. The policy focuses on sustainable resource management, animal health, market access, investment, and collaboration between national and county governments.
3.	The range management and pastoralism strategy, 2021-2031	A kenyan government initiative focused on the sustainable management and development of the country's rangelands. It aims to address challenges like land degradation, inadequate feed and water, and poverty among pastoral communities. The strategy promotes a collaborative approach involving national and county governments, stakeholders, and development partners.
4.	Kenya Climate Smart Agriculture strategy and implementation plan	A framework designed to transform kenya's agriculture sector into a climate-resilient, low-carbon, and sustainable system that ensures food security and contributes to national development goals. It aims to integrate climate change adaptation and mitigation strategies with agricultural practices to enhance productivity, build resilience, and minimize greenhouse gas (GHG) emissions.
5.	The National Beekeeping Policy	A framework designed to guide the sustainable development of the beekeeping industry. It aims to enhance honey production, improve the quality of bee products, promote value addition and marketing, and contribute to social and economic development, including food security and employment. The policy also focuses on environmental sustainability by promoting the responsible management of the environment for enhanced pollination.
6.	National horticulture policy 2012	A policy framework designed to guide the sustainable growth and development of the horticultural industry in kenya. It aims to enhance the sector's contribution to food security, poverty reduction, employment, and wealth creation.
7.	The National Policy on Gender and Development and the Bioenergy strategy 2020	Aims at achieving equality of opportunity and outcomes with respect to access to and control of national and county resources and services; and equality of treatment that meets the specific and distinct needs of different categories of women and men.
8.	The National Climate Change Action Plan (NCCAP) (2023 – 2027)	Aims to incentivize tree growing through establishment of 1,000 ha of bamboo commercial forests, 300,000 ha of commercial forest plantations, one (1) million hectares of agroforestry established on farmlands, improved processing efficiency of forest materials and recovery rates from 15% - 30% towards adaptation and mitigation against climate change.

The above review reveals that there exists several policies and legislations on different aspects of agroforestry implemented by various stakeholders. There is however a gap in institutional frameworks for coordinating agroforestry functions in the country, enhancing agroforestry finance, mainstreaming gender and social inclusion in agroforestry development, commercialization of value chains and enhanced efficiency of processing operations. The strategy will therefore be geared towards addressing these key gaps to streamline the operating environment for agroforestry development in the country.

Kenya has identified agroforestry as a suitable intervention that enhances adaptation to adverse impacts of climate change while guaranteeing mitigation co-benefits according to the National climate change framework policy 2015, the Kenya Agriculture sector growth and transformation strategy (2019-2029), Kenya framework for sustainable land management (2016-2026), Kenya climate smart Agriculture strategy (2017-2027).

Implementation of the strategy will contribute to the attainment of global commitments and Multilateral Environmental Agreements (MEAs) that Kenya has ratified. These includes the United Nations Framework Convention on Climate Change (UNFCCC), the Intergovernmental Panel on Climate Change (IPCC), the Convention on Biological Diversity (CBD), United Nations Convention to Combat Desertification (UNCCD), The Paris Agreement, African Forest Landscape Restoration Initiative (AFR100), and the Sustainable Development Goals 2030 (SDGs) framework, particularly SDG 1,2,13 and 15

2.2 Finance and Investment

2.2.1 Financial aspects of agroforestry

Finance is a critical element required to unlock agroforestry investments potential in the country. Smallholder farmers in Africa contribute up to 70 percent of the food supply while implementing most of the regional and international climate agreements signed by their respective countries.

Agroforestry projects have the potential to increase farm productivity and income for rural people while protecting the farming environment (particularly soil and water resources). According to World Agroforestry (2007), some of the reasons why agroforestry projects have high financial returns are:

- Lower infrastructure costs: On-farm tree planting or local woodland protection requires less investment in infrastructure—such as access roads, firebreaks, and administrative staff—compared to government-run plantations or forest protection programmes.
- Rapid adoption of fast-growing species: Farmers often prefer fast-growing short-rotation species such as *Leucaena*, *Sesbania*, *Grevillea*, *Calliandra*, *Eucalyptus* and *Albizia* with prospects of early financial return (in 3-7 years under favorable ecological conditions) or which they recognize can offer additional farming benefits such as nitrogen fixation, provision of leaf mulch, fodder, fruit and other products.
- Low-cost establishment techniques: The use of low-cost tree-establishment techniques such as direct seeding, or use of the “basket” system for distributing seedlings as is widely practiced in India, coupled with decentralised planting by thousands of smallholder farmers, keep establishment costs down.



Rising market prices: Increasing scarcity has pushed up prices for building poles, fuelwood, fodder, and timber at a faster rate than many other commodities, making tree farming in favourable zones highly profitable.

Despite this, finance provided to smallholder producers in low-income countries rarely matches their requirements to improve and scale up agroforestry. This is aggravated by weak land tenure arrangements where some of the lands used for agroforestry do not have title deeds. In other cases, agroforestry implementers, mainly youth and women, do not own land title deeds thus cannot acquire credit and other financial products to support enhanced investment in agroforestry. Agroforestry value chains in the country are also mostly informal in nature and undertaken on a small scale (Cifor, 2023) using labor intensive practices with minimal mechanization. These limit their potential to tap into attractive and competitive financial products and services available in other sectors.

2.2.2 Financial arrangements for introducing and/or scaling-up agroforestry practices

Integrating agroforestry into farm systems presents significant challenges for both individual farmers and small to medium-sized private agro-industries. Making informed decisions on the most profitable and sustainable use of available land is crucial.

To address these challenges:

- **Credit Facilities:** The Kenya Forest Service (KFS), in collaboration with the Equity Bank Foundation (EBF), has established a financing scheme (Equity Bank, 2024). Through this partnership, EBF's Food and Agriculture pillar offers loans to small-scale farmers, on the condition that at least 30 percent of their activities are forestry-related.
- **Capacity Testing:** The Farmers Field School (FFS), supported by KFS, serves as a platform for testing the feasibility of new agroforestry techniques before large-scale implementation and investment.
- **Insurance Solution:** Access to insurance is also essential for mitigating risks associated with agroforestry. In Kenya, "Picture-Based Insurance (PBI)" has been introduced and tested by various insurance providers, including CIC Agriculture Insurance Kenya, offering protection to farmers, landowners, and private sector practitioners.
- **Carbon Financing:** Another emerging financial opportunity for agroforestry investment is carbon credit schemes. Under the Climate Change (Amendment) Act, 2023 and its associated regulations, land-based projects will allocate 40% of their earnings to benefit host communities, making carbon financing a viable option for agroforestry expansion.
- **Development assistance:** Funding opportunities also play a crucial role in financing agroforestry initiatives. Available funding sources include (1) multilateral support from organizations such as the United Nations and other international entities, and (2) bilateral funding from individual countries. While highly competitive and requiring a lengthy application process, the Green Climate Fund (GCF) and AFR100 are notable initiatives supporting climate action. Additionally, the Food and Agriculture Organization (FAO) is piloting direct beneficiary grants for farm-based producer organizations to implement climate-focused interventions, where agroforestry systems are expected to play a significant role.

These financial mechanisms can help lower barriers for farmers, landowners, and practitioners, facilitating the widespread adoption of agroforestry and contributing to sustainable land management. There is need for enhanced private sector funding through loans and credit schemes for supporting agroforestry development in the country

2.3 Education, Research, Innovation and Knowledge Management

Kenya's agroforestry knowledge and innovation system can be categorized into three major sections namely:

- i. **Education and training; Research and innovation; and Extension advisory services and technology dissemination.**

The levels of interactions between the three subsystems remain low and disjointed.

Education and Training

Until the 1990s, agroforestry was only taught as a unit within broader natural science courses such as forestry, environmental studies, natural resources management, agriculture, and other related disciplines. Greater milestones have however been made within the last three decades that have seen agroforestry curricula developed (Kilewe et al., 1989), mainly through the initiatives of development partners, in collaboration with education stakeholders in the country. Today, several universities in Kenya are offering bachelor's degree courses in Agroforestry and or rural development thereby increasing the pool of professionals that could steer agroforestry implementation in the country. Today, universities such as the University of Eldoret, University of Embu, University of Kabianga, Kenyatta University, Maasai Mara University, and South Eastern Kenya University offer degree programmes in agroforestry and rural development, expanding the pool of skilled professionals.

Research and Innovation

The Research and Innovation system in Agroforestry has been spearheaded by both international and national research organizations including universities in Kenya. A lot of investments have been put on agroforestry research for close to four decades, especially in the humid areas of Kenya. These efforts include research on ecosystem goods and services associated with agroforestry such as soil fertility, nitrogen fixation and carbon storage, payment for ecosystem services (PES) (Nzyoka 2012), water and soil conservation; tree-crop interactions and planting configurations; social-economic aspects; food and nutrition security, gender, and social inclusion; policy environment, among others. There exists several research and technology institutions that develop and promote agroforestry related technologies in the country.

These include KEFRI, KALRO, ICRAF, CIFOR, Vi-Agroforestry, KFS and Universities. However, most of agroforestry research in Kenya has hitherto been inclined towards biophysical aspects with limited focus on institutional, socio-cultural, and economic dimensions of agroforestry systems. As a result, research outputs on important areas such as agroforestry value chains, institutional innovations for financing, and economic and social viability of agroforestry enterprises have not been properly addressed. There is also a need for enhanced institutional collaboration and joint setting of agroforestry research agenda to efficiently address cross cutting agroforestry challenges.





Extension, Advisory Services and Technology Dissemination (EAS)

Extension and Advisory Services (EAS) in Kenya are delivered by a wide array of actors, including national and county government agencies, NGOs, international organizations, farmers' organizations, and private sector players. Despite this broad participation, there are no standardized professional guidelines for agroforestry EAS in the country. Most advisors are graduates of agricultural or forestry-related sciences, with graduates specializing in agroforestry growing in number.

Key methods applied to promote agroforestry development in the country include Farmer Field Schools, on-farm demonstrations, adaptive research, and participatory learning and action approaches. However, the absence of an institutional framework for coordinating agroforestry EAS has resulted in fragmented, short-lived, and often project-based programmes. The dominant model of knowledge dissemination focuses on technology transfer, with limited adoption of approaches that foster collective projects, decision-support systems, or farmer-led innovation.

There is therefore a need to leverage on existing indigenous and traditional knowledge as part of the EAS especially regarding conservation of species that were of high value but could be endangered and threatened due to over exploitation. Our knowledge and innovation systems could also recognize the role of apprenticeship and experiential learning as a mode of training and dissemination of agroforestry related knowledge. This can be further enhanced through formal short courses and certification to the practitioners for harmonization and standardization of knowledge.

The strategy therefore offers a great opportunity to; i) develop a seamless agroforestry innovation system with farmers/pastoralists, research and extension service providers; ii) establish and strengthen farmers organizations as a pathway for knowledge and innovation dissemination; iii) develop expertise in the management of trees in agroforestry systems iv) promoting regenerative agriculture and farmer managed regeneration in the arid and semi-arid areas as a strategy for improving the biodiversity base in farms and the rangelands respectively.

2.4 Agroforestry Value chain development

Agroforestry supports a wide range of value chains across Kenya's diverse agro-ecological zones, involving products and services that cut across seeds and seedlings, wood biomass, non-wood forest products, agricultural systems, and livestock.

Opportunities and Contributions

Agroforestry contributes significantly to household food and nutrition security through production of food crops and fruits. Its adaptability to different agro-ecological zones, and coupled with an elaborate institutional infrastructure involving both state and non-state actors, makes it a stronger driver of sustainable development.

Kenya is projected to experience growing demand for agroforestry related products and services. Wood-based products include timber, fuelwood, and poles, while non-timber products encompass fruits and nuts, gums and resins, medicinal and aromatic plants, livestock products, crops, honey, and apiculture products. At the foundation of these value chains lies the tree nursery enterprise.

Agroforestry also complements the livestock value chains through growing of fodder trees and practicing silvo-pastoral systems, while in the agriculture sector, it enhances soil fertility through nitrogen fixation and erosion control, thereby increasing productivity and profitability of crop and livestock systems.



Tree nurseries have emerged as a key enterprise in both rural and urban areas, driven rising demand for planting materials. They contribute significantly to household incomes and employment. Informal tree nursery operators appear to have an advantage over institutional players because of their proximity to farmers and end users. However, lack of adequate mechanisms to regulate the tree nursery value chains and capacity building of

community-based tree nursery operators has resulted to widespread concerns about poor-quality planting materials.

Agroforestry-related ecosystem services such as ecotourism and carbon sequestration present untapped opportunities for commercialization in the country. There however exists low awareness, and appreciation of benefits of ecosystem services. There is therefore a need to pilot test Payment for Ecosystem Services (PES) initiatives in Kenya; and tree-based enterprises offering amenity, physical health, and recreational services.

Despite the challenges facing value chain development for agroforestry related goods and services, there exists huge potential for commercialization due to readily available markets of goods and services from increasing populations.

Wood fuel including charcoal and firewood, is currently used by 70 percent of Kenya's population, highlighting the immense opportunity for scaling up sustainable production and utilization of fuel wood. Growing consumer awareness and demand for environmentally friendly and ecologically produced goods and services further positions agroforestry products for high-value markets. There is a need to promote certification of agroforestry products to improve access to high-value markets for improved incomes to farmers.





Under the National Landscape and Ecosystem Restoration Strategy, aligned to the 15 Billion Tree Growing Initiative, the Government plans to establish ten (10) mega agroforestry nurseries distributed across the country in different agro-ecological zones. This plan is expected to boost the supply of seedlings, stimulate commercialization of different agroforestry value chains through enhanced supply of planting material, promotion of value addition and processing due to economies of scale. These factors combined will positively impact on households' incomes, employment, and livelihoods.

Agroforestry also has potential to support the conservation and management of gazetted public forests by introducing species in buffer zones to prevent encroachment on public forests. Some key species that could be targeted include palms in coastal regions, high value fruit trees such as oranges and pixies in the Eastern region, and bamboo, tea, avocado, mango and macadamia in the highlands and Rift Valley regions of Kenya.

Challenges and Constraints

Key constraints affecting agroforestry value chain development include poor and sub-standard inputs, highly informal markets, weak extension and advisory services, inefficient production/ processing technologies, as well as external factors such as negative climate change effects.

Markets for agroforestry products are often informal and characterized by market asymmetries with traders having more market information than producers. Lack of standards for agroforestry products often limits access to prime markets including export markets.

Agroforestry is also characterized by limited Incentives for investments in the value chains such as financial products for agriculture and forestry that remain low in comparison to other sectors.

2.5 Climate Change Action

Kenya, like many other countries, is increasingly experiencing the adverse impacts of climate change. Rising temperatures, erratic rainfall patterns, and prolonged droughts, are undermining agricultural productivity, threatening water resources, and eroding livelihoods. According to GoK (2024), the Forestry and Other Land Use (FOLU) sector emitted 46,846.3 GgCO₂eq in 2022, representing 41 % of the national emissions, while the agriculture sector contributed 36,102.2 GgCO₂eq (32% of the national emissions). Collectively, the Agriculture, Forestry and Other Land Use (AFOLU) sector accounted for 73 per cent of Kenya's total greenhouse gas emissions, making it the largest contributor.



Agroforestry provides a critical pathway for both climate change mitigation and adaptation. Through carbon sequestration, improved soil health, microclimate regulation, protection and conservation of biodiversity, enhanced ecosystem services and improved livelihoods, agroforestry systems address multiple climate vulnerabilities simultaneously. Compared to monoculture farming or degraded lands, agroforestry systems store significantly higher amounts of carbon in both biomass and soils, thereby strengthening resilience to climate change. The carbon sequestration potential of these systems, however, depends on variables such as tree species, climate, soil type, and management practices.

To maximize these benefits, agroforestry must be fully integrated into Kenya's climate change policies and legal frameworks, including the National Climate Change Action Plan (NCCAP), Nationally Determined Contribution (NDC), National Adaptation Plan (NAP), REDD+ among others. In its updated NDC (2020-2030), Kenya has committed to abate 145 MtCo₂Eq (32% emissions reductions) by 2030. Restoration efforts through agroforestry will be pivotal in achieving this target. The NCCAP (2023-2027) identifies agroforestry as both a mitigation and adaptation action. It commits to increasing the agricultural land area under farm trees by 200,000 hectares. and establishing 1,000,000 hectares of farmland under agroforestry.

2.6 Gender, Youth and social inclusion

Gender and social inclusion are integral components of the National Agroforestry Strategy, ensuring that marginalized and vulnerable groups – particularly women, youth, and persons with disabilities (PWDs) - actively participate in agroforestry development processes. By promoting inclusion, the strategy seeks to guarantee equitable access to opportunities and benefits derived from these processes.

Current Status and Challenges

In Kenya, a significant number of women entrepreneurs are engaged in the agriculture and forestry sectors, where agroforestry systems are well-established. However, gender-specific barriers hinder



the full participation of women, youth, and PWDs in agroforestry value chains. These challenges include

- Limited access to secure land and tree tenure.
- Restricted access to financing, markets, agroforestry training, and education.
- Gender disparities in ownership of productive resources, agricultural extension services, and healthcare

Such obstacles place these groups at a disadvantage, negatively impacting agroforestry productivity, contributing to increased poverty levels. One of the key barriers to scaling agroforestry among women, youth and PWDs is insecurity in land and tree tenure. Despite Kenya's recent legal reforms aimed at strengthening women's land rights, customary norms continue to dictate access and control over land, limiting women's ability to benefit from agroforestry initiatives. Additionally, the lack of comprehensive data and the context-specific nature of agroforestry systems pose challenges in addressing social inclusion effectively.

Studies indicate that men and women often make different land-use decisions. Men generally favor commercial tree species, while women prioritize species with subsistence and quick-income benefits such as papaya (*Carica papaya*), chocolate berry (*Vitex payos*), guava (*Psidium guajava*), and tamarind (*Tamarindus indica*). These preferences reflect women's role in meeting household needs for firewood, fruits, fodder, and soil fertility enhancement

Beyond land tenure challenges, women face additional gender-based constraints, including limited access to institutions and support services such as agroforestry extension programs, improved inputs, planting materials, financial services, and membership in farmer groups.



Youth participation in agroforestry remains relatively low despite their significant demographic representation. In 2019, youth aged 18–35 years constituted 29% of the total population (KNBS, 2019), yet only 10% were involved in agriculture (World Bank, 2014). This low participation persists even though 92% of Kenyan youth reside in rural areas. However, studies in central Kenya have shown that middle-aged and young farmers are increasingly planting trees to meet household needs

such as fuelwood, timber, construction poles, and land boundary marking. The anticipated rise in demand for wood products is a key market driver encouraging tree planting and retention.

Addressing these gender and social inclusion challenges within agroforestry requires targeted policies, improved access to resources, and the promotion of equitable opportunities for all stakeholders. Strengthening participation and ensuring the inclusion of women, youth, and marginalized groups will be critical in achieving sustainable agroforestry development in Kenya.



2.7 PESTLEG AND SWOT ANALYSIS

The following section presents the PESTLEG and SWOT analysis for agroforestry development in the country.

Table 3: SWOT and PESTLEG analysis

PESTLEG	Strength	Weaknesses	Opportunities	Threats
Political	<ul style="list-style-type: none"> Enabling the political environment for promoting agroforestry in a multi sectoral setting. 	<ul style="list-style-type: none"> Long term nature of agroforestry development negatively affected by changes in government priorities 	<ul style="list-style-type: none"> Goodwill from the government in promoting agroforestry 	<ul style="list-style-type: none"> Declining trends in development partner funding especially to support long term research and development programs. Political instability and ethnic conflicts in some regions of the country and general resource use conflicts hamper scaling efforts.

PESTLEG	Strength	Weaknesses	Opportunities	Threats
<p>Economic</p>	<ul style="list-style-type: none"> ● Support from the donor community and NGOs to the sector ● Diversification of income/ income sources ● Resilience against market shocks ● Supports production of a variety of products and services 	<ul style="list-style-type: none"> ● Inadequate funding for agroforestry ● Poor marketing infrastructure and asymmetric information on prices, product flow, processing, and marketing options. ● Weak linkage between producers and finance institutions for credit provision. ● Weak Public Private partnerships on blended finance and performance-based financing. ● Underdeveloped market infrastructure for agroforestry. ● Inadequate incentives for farmers to engage in agroforestry and related value chains. ● High initial cost of agroforestry investments 	<ul style="list-style-type: none"> ● Recognition of the role of agroforestry in achieving sustainable development goals and international development agenda. ● Existence of global funding mechanisms for agroforestry development. ● Emerging agroforestry related value chains such as ecotourism, payment for ecosystem services and carbon trading schemes. 	<ul style="list-style-type: none"> ● Market uncertainty for agroforestry products and services

PESTLEG	Strength	Weaknesses	Opportunities	Threats
<p>Social</p>	<ul style="list-style-type: none"> • Enabling environment for promoting agroforestry in a multi sectoral setting. • The existence of Participatory Assessment Methodologies in agroforestry. • Vast experiences and extensive indigenous knowledge on agroforestry. • Positive impact on food and nutrition security 	<ul style="list-style-type: none"> • Low appreciation of the role of indigenous and traditional knowledge systems on agroforestry development • Social and cultural factors hinder women and youth involvement in agroforestry. 	<ul style="list-style-type: none"> • Increase in participatory and collaborative approaches in agroforestry development. • Presence of established agroforestry related national/ international research institutions, NGOs and private actors in Kenya. • Involvement of youth, women and marginalized groups in agroforestry. • Community-based socio/ mass media channels for communication to farmers. • Availability of land and labour for agroforestry development. • Increased awareness of the importance of agroforestry on farms and rangelands. • Existence of indigenous and traditional knowledge in agroforestry 	<ul style="list-style-type: none"> • Cultural beliefs and traditional practices that hinder agroforestry development. • Unsustainable exploitation of high value agroforestry species

PESTLEG	Strength	Weaknesses	Opportunities	Threats
<p>Technological</p>	<ul style="list-style-type: none"> ● Accumulated knowledge and experience in agroforestry research providing a solid base for information sharing. ● Enhanced collaborative research on agroforestry between local and international agencies. ● High diversity of adaptable agroforestry species 	<ul style="list-style-type: none"> ● Low adoption of agroforestry technologies ● Inadequate information on appropriate models for agroforestry development in different Agro ecological zones. ● Inadequate extension services for agroforestry development ● Lack of robust knowledge management and communication systems for agroforestry. ● Inadequate development of agroforestry seed sources, seed supply chain and support systems. ● Gaps in research and insufficient dissemination of agroforestry information. ● Insufficient data and statistics on agroforestry systems. ● Use of poor agronomic practices affecting agroforestry development ● Low value addition/ processing 	<ul style="list-style-type: none"> ● Distribution of agroforestry related research and support centres across the country improving technology development and dissemination. ● ICT innovations that can supplement existing dissemination products in addressing client needs. ● Increase in digital infrastructure and digital literacy capacity. 	<ul style="list-style-type: none"> ● Dissemination of wrong information to farmers through informal social networks.

PESTLEG	Strength	Weaknesses	Opportunities	Threats
<p>Legislative</p>	<ul style="list-style-type: none"> Supportive policy and legal frameworks in all levels of Government. 	<ul style="list-style-type: none"> Low enforcement and compliance to agroforestry related policies and legislations. Inadequate civic education on national laws and international conventions Weak implementation and compliance with international conventions, treaties and agreements. 	<ul style="list-style-type: none"> Existence of international conventions, treaties and agreements, on agroforestry which have been signed and ratified by Kenya. Existence of regional policy frameworks and structures of cooperation 	<ul style="list-style-type: none"> Uncertainty on future policies and laws on agroforestry development.
<p>Environmental</p>	<ul style="list-style-type: none"> Complementarity of the value chain to environmental conservation through tree growing and restoration of degraded ecosystems Improved resilience to climatic shocks. Positive effect on biodiversity conservation 	<ul style="list-style-type: none"> Perceived competition between trees and crops for nutrients Wrong species to site matching for agroforestry Unregulated tree nursery establishment compromising on quality 	<ul style="list-style-type: none"> Global and national recognition of agroforestry as a climate change mitigation and adaptation pathway 	<ul style="list-style-type: none"> Pandemics/disasters that shift agroforestry investment priorities. Climate change dynamics. Emergence of invasive tree species, weeds, pests and diseases Genetic erosion due to degradation of natural habitats and species extinction.

PESTLEG	Strength	Weaknesses	Opportunities	Threats
<p>Governance</p>	<ul style="list-style-type: none"> Supportive institutional frameworks for the development of agroforestry value chains at the national, County and community levels. Support from both National and County governments as well as partners and investors. 	<ul style="list-style-type: none"> Weak agroforestry extension delivery systems Low numbers of agroforestry extension officers. Weak coordination between national, county governments and actors on agroforestry. Weak institutional capacity and linkages for the dissemination of existing technologies in agroforestry. Poor monitoring and evaluation systems on agroforestry 	<ul style="list-style-type: none"> The existence of a framework for the transfer and implementation of devolved forestry functions. The existence of Development Partner supported programmes in agroforestry. Existing Collaborative mechanisms between agroforestry R&D organizations and alliances for agroforestry scaling. Support from county governments including establishment of processing facilities. 	<ul style="list-style-type: none"> Misalignment of agroforestry related functions leading to poor implementation. Land fragmentation and land use change negatively affecting agroforestry development The growing urban sprawl, haphazard settlement and encroachment in agroforestry landscapes Insecure land and tree tenure that disenfranchise women, youth, and marginalized groups.



2.8 Risk Analysis

Table 4 analyses the risks and mitigation measures associated with implementation of the Agroforestry Strategy.

Table 4: Risk analysis and mitigation measures for identified threats

Risk	Level*	Mitigation	Responsibility for mitigation
Environmental			
Drought	High	<ul style="list-style-type: none"> Species site matching, early planting/preparedness, and underground water provision to supplement Research on drought resistant species. Deployment of innovative technologies to address erratic weather patterns. Early warning systems 	KEFRI, KFS, KALRO CGs, PBOs, NDMA, KWS
Pest and diseases	Low	<ul style="list-style-type: none"> Monitoring and development of prediction models Mixed tree species planting 	KEFRI, KEPHIS, MOA, KARLO, KFS, KWS, PBOs, County governments,
Invasive species	Moderate	<ul style="list-style-type: none"> Species site matching Implement applicable policies and guidelines on invasive species management 	KEFRI, KEPHIS, KFS, MoALD, NEMA, KALRO
Economic/ Financial risks			
Low financing to agroforestry	Moderate	<ul style="list-style-type: none"> Development of Innovative financial products 	National government County government Development partners Private sector players
Informal market arrangements	High	<ul style="list-style-type: none"> Enhanced market information flow 	National government County government Development partners Private sector players

Risk	Level*	Mitigation	Responsibility for mitigation
Social risks			
Land use change	High	<ul style="list-style-type: none"> • Policies and legislation to mitigate against the vice 	National and County governments
Conflicting interests among stakeholders	Low	<ul style="list-style-type: none"> • Awareness creation and coordination between stakeholders 	National government County government Development partners Private sector players
Political risks			
Insecurity	Medium	<ul style="list-style-type: none"> • Enhanced security and community conflict management structures 	National government County governments Community leadership

*NOTE: Likelihood (Low=1, Moderate = 2, High = 3); Severity (Low=1, Moderate = 2, High = 3); Level (Low 1-3, Moderate 4-6, High 7-9). Risk level is calculated as Likelihood x Severity.

The situation analysis (status, SWOT, PESTLE and causal analysis) helped to determine strategic issues that will inform the strategic focus for investment in agroforestry. The following strategic issues were identified for the four pillars.



S/No.	PILLAR	STRATEGIC ISSUES
1	Policy, Legal and Institutional Frameworks	<ol style="list-style-type: none"> 1. Lack of an overarching enabling policy and legal framework for agroforestry development. 2. Inadequate and ineffective incentives for promotion of agroforestry. 3. Lack of an institutional framework to enhance coordination of agroforestry development in the country. 4. Inadequate institutional capacity to support agroforestry development.
2	Finance and Investment	<ol style="list-style-type: none"> 1. Inadequate resources for implementation of agroforestry Programmes
3	Education, Research, Innovation, and Knowledge Management	<ol style="list-style-type: none"> 1. Inadequate infrastructure for agroforestry training, research, technology development and dissemination. 2. Weak and inadequate data management and participatory monitoring, evaluation and learning frameworks in agroforestry. 3. Lack of professional standards to guide the delivery of agroforestry advisory to practitioners.
4	Agroforestry Value Chains Development	<ol style="list-style-type: none"> 1. Inadequate development of agroforestry value chains 2. Limited appreciation of Agroforestry ecosystem services 3. Under-developed tree seeds and seedlings production and supply systems
5	Climate Change Action	<ol style="list-style-type: none"> 1. Declining productivity in agriculture and forest landscapes 2. Increased emissions due to unsustainable land management practices 3. Loss of biodiversity 4. Food insecurity and loss of livelihoods
6	Gender, Youth and Social Inclusion in agroforestry development	<ol style="list-style-type: none"> 1. Gender, youth and marginalized group-based constraints in practicing agroforestry. 2. Inequality in access to resources among women, youth and marginalized groups 3. Land and tree tenure (ownership, access and user rights) not sufficiently supportive of women, youth, and marginalized groups. 4. Knowledge and evidence gap on social inclusion/exclusion among women, youth and marginalized groups



3.0 STRATEGIES

This chapter outlines the vision, mission, guiding principles, key strategic objectives and strategic actions that will deliver the implementation of the strategy over the period (2025-2035).

Vision, Mission and Guiding Principles

MISSION



To create an enabling environment for development and upscaling of agroforestry for environmental and socio-economic development in Kenya

VISION



Climate resilient agroforestry systems for sustainable production, ecosystem health, social inclusivity and improved livelihoods. By 2035, we vision the strategy to have contributed to the restoration of 3 million Hectares of degraded lands in the country as well as contribute to more than 5% of GDP in the country

3.0.1 Guiding Principles

- 1. Innovation and creativity:** This strategy appreciates the complexity of agroforestry development being a function implemented by multiple stakeholders cutting across different sectors. The strategy will leverage on different knowledge systems that exist in different spheres and with different stakeholders including indigenous technical knowledge which can be harnessed to enable many locally adaptable innovations in agroforestry.
- 2. Multi-dimensional and multi-functional:** Agroforestry is a dynamic practice that cuts across agriculture and forestry, involving farmers, livestock, trees, and forests at multiple scales. The practice is complex and involves components of different gestation periods, multiplicity of stakeholders as well as implications at various levels – local to global. Planning for and practice of agroforestry should therefore consider short-, medium- and long-term dimensions, social-cultural aspects as well as intra- and intergenerational equity. Agroforestry systems provide multiple environmental and socio-economic benefits.
- 3. Good governance:** This strategy aims at mainstreaming agroforestry in policies, legislations, and plans to create an enabling environment for investment by various value chain actors across scale. Investment is foreseen to be catalyzed when enabling sectors are prioritized in budget processes and there is accountability in governance processes coupled with enforcement of the facilitative legal infrastructure.
- 4. Inclusivity, public participation, and capacity development:** This strategy will promote public participation and inclusivity of smallholder farmers, pastoralists, indigenous communities, and other marginalized groups (i.e., the youth, women, poor farmers, the elderly, and PWDs) to encourage ownership and promote transparency and social accountability. Capacity development at all levels is necessary to improve awareness, productivity and efficiency across the value chain.

- 5. Partnership and coordination:** This strategy will promote intersectoral coordination while recognizing the distinctiveness and interdependence of the two levels of government in Kenya and their roles in policy formulation and support to farmers. The strategy appreciates the role of multisectoral partnerships including public-private partnerships, and the inclusion of non-state actors in the development process, aiming at synergy in line with SDG 17 aspirations.
- 6. Socio-economic focus for sustainable livelihoods:** This considers the role of market-based incentives in promoting productive land use and management as well as investment at all levels in agroforestry-based value chains. The strategy is premised on the green growth paradigm, involving economic incentives and proper valuation of ecosystem services (including biodiversity), equity, intellectual property and innovative value chain financing at all levels.
- 7. Sustainable land management and climate resilience:** The strategy will endeavor to promote land degradation neutrality while encouraging sustainable land management (SLM) and agricultural intensification. It appreciates the role of buffers, trade-offs and spin-offs in management of agricultural landscapes to ensure sustainable resource flows including water, nutrients and genes while mitigating against climate change and attaining environmental sustainability.
- 8. Support attainment of global conventions, regional, national and county commitments:** Kenya has signed up to various international conventions, protocols and agreements related to climate change, combating desertification, landscapes/ecosystem restoration, biodiversity conservation and sustainable development. This strategy seeks to promote the attainment of targets associated with such agreements while equitably benefiting from investments arising from such agreements.

Compliance to environmental and social safeguards: The agroforestry systems should not introduce any negative effects to the environment like invasive and noxious species or practices that negatively impact communities. Assessments should be undertaken to prevent and mitigate any undue harm to people and the environment.

3.0.2 Objectives of the strategy

3.0.3 Overall Objective

To promote agroforestry development in the country for sustainable land use, enhanced provision of ecosystem goods/ services, and improved livelihoods

3.0.4 Specific objectives
i. To strengthen policy, regulatory and institutional frameworks for agroforestry development.
ii. To enhance investment financing and private sector participation in agroforestry development
iii. To enhance research, technology development, innovation, dissemination and knowledge management in Agroforestry development
iv. To promote the development of agroforestry-based value chains
v. To enhance community livelihoods resilience to climate change through Agroforestry.
vi. To create an enabling environment for enhanced participation of women, youth, children and marginalized groups in agroforestry development.

The strategy has 14 Strategic Objectives and 63 strategies. The strategies are organized according to the six pillars as shown below:

3.1 Policy, Legal, and Institutional Frameworks

Supportive policy, legal, and institutional frameworks are critical for sustainable development of agroforestry in Kenya, as they provide a structured environment for implementation, regulation, and expansion of the sub sector. Well-defined policies promote the integration of agroforestry into national development plans, ensuring resource allocation and government support. Legal frameworks help secure land and tree tenure rights, encouraging farmers to invest in long-term agroforestry practices while strong institutions facilitate research, extension services, and knowledge dissemination, bridging the gap between policy and practice. Additionally, these frameworks enhance coordination among stakeholders, including government agencies, NGOs, and local communities, fostering collaboration and innovation. The pillar has four (4) strategic objectives and twelve (11) strategies as shown in the table below.

Table 6: Strategic objectives and strategies: Policy, Legal, and Institutional Frameworks

S/No.	STRATEGIC OBJECTIVE	STRATEGIES
1.	To strengthen policy, legal and institutional frameworks for agroforestry development	<ul style="list-style-type: none"> a) Develop, review, and harmonize relevant policies, laws, regulations and strategies on agroforestry development b) Mainstream agroforestry in relevant National and County policies, laws, strategies, plans, and Programmes. c) Advocate for innovative land and tree tenure arrangements for Agroforestry development. d) Domesticating and adopt ratified international and regional treaties and agreements that support agroforestry. e) Integration of agroforestry into national climate policy and legal frameworks
2.	To develop effective fiscal and non-fiscal incentives to enhance the development of agroforestry	<ul style="list-style-type: none"> a) Develop and promote structured incentive schemes for agroforestry development. b) Mainstream payment for ecosystem services (PES) in agroforestry related policy and legal frameworks.
3.	To enhance coordination of Agroforestry development	<ul style="list-style-type: none"> a) Establish and operationalize an inter-sectoral/ multi-stakeholder platform for enhanced coordination of agroforestry development, and information sharing. b) Capacity build stakeholders on agroforestry development
4.	To Strengthen capacity of key institutions and stakeholders in Agroforestry development	<ul style="list-style-type: none"> a) Capacity build county governments in development and implementation of County specific agroforestry Programmes b) Strengthening capacity for farmers' organizations and networks for promoting agroforestry

3.2 Finance and Investment

The pillar addresses strategic issues on inadequate resources for the development and implementation of agroforestry. It will be key in unlocking financing and investments in agroforestry from domestic and global financial sources including climate finance. This pillar identifies one (1) strategic objective, and four (4) strategies as highlighted below.

Table 7: Strategic objectives and strategies: Finance and Investment Pillar

S/No.	STRATEGIC OBJECTIVE	STRATEGIES
1.	To enhance investment and financing for agroforestry development	<ul style="list-style-type: none"> a) Enhance budgetary allocation for agroforestry development at national and county levels b) Develop and operationalize Payments for Ecosystem Services (PES) schemes for sustainable management and use of land resources. c) Enhance climate financing in agroforestry through promotion of carbon trading schemes. d) Develop and operationalize agroforestry development facility

3.3 Education, Research, Innovation, and Knowledge Management

Education, research, innovation, and knowledge management are key components of agroforestry development in Kenya. Education equips practitioners, farmers, policymakers, and stakeholders with the necessary skills and awareness to implement agroforestry effectively. Research enhances understanding of tree-crop-livestock interactions, soil health, and climate adaptation strategies, ensuring evidence-based decision-making. Innovation fosters the development of improved species, efficient farming techniques, and value-addition of agroforestry products, boosting productivity and profitability. Knowledge management, on the other hand, facilitates the dissemination of best practices, indigenous knowledge, and technological advancements, ensuring continuous learning and adaptation. Together, these elements create a strong foundation for sustainable agroforestry development, contributing to food security, environmental conservation, and rural economic growth in Kenya. The pillar has three (3) strategic objectives and fifteen (12) strategies as shown below.



Table 8: Strategic objectives and strategies: Education, Research, Innovation, and knowledge management pillar

S/No.	STRATEGIC OBJECTIVE	STRATEGIES
1.	To enhance capacity and skills for Agroforestry development	<ul style="list-style-type: none"> a) Standardization of operational procedures for agroforestry development b) Mainstreaming agroforestry in learning institutions. c) strengthening extension and advisory services in agroforestry
2.	To strengthen research, innovation and dissemination in Agroforestry	<ul style="list-style-type: none"> a) Develop Agroforestry infrastructure for research, innovations, technology and dissemination b) Establish and strengthen county, regional, and national research and business incubation centers for agroforestry c) Promote and enhance participatory and action research in agroforestry d) Strengthen linkages for collaborative research, technology development and dissemination in agroforestry. e) Strengthen technical liaison between research, extension, and agroforestry value chain actors. f) Enhance breeding of agroforestry species
3.	To enhance knowledge management for agroforestry development	<ul style="list-style-type: none"> a) Develop and operationalize an agroforestry knowledge management and sharing system. b) Promote innovative approaches for documentation, packaging and dissemination of agroforestry best practices. c) Enhance participatory monitoring, evaluation and learning

3.4 Agroforestry Value Chains Development

Agroforestry value chain development is essential for improving smallholder farmer livelihoods and promoting environmental sustainability in Kenya. By creating market opportunities for agroforestry products such as timber, fruits, nuts, medicinal plants, and fodder, value chain development enhances farmers' incomes and economic resilience. It also encourages the adoption of sustainable land management practices that improve soil fertility, conserve water, and reduce deforestation. Strengthening agroforestry value chains through improved production, processing, storage, and market access ensures that smallholders maximize their returns while reducing post-harvest losses. Additionally, integrating agroforestry into value chains supports biodiversity conservation and carbon sequestration, contributing to climate change mitigation and adaptation. This pillar has three (3) Strategic Objectives and fifteen (12) strategies as shown below.

Table 9: Strategic objectives and strategies: Agroforestry Value Chains Development pillar

S/No.	STRATEGIC OBJECTIVE	STRATEGIES
1.	To enhance production and supply of quality seeds and seedlings of diverse agroforestry species	<ul style="list-style-type: none"> a) Establish, Maintain and protect quality seed sources b) Capacity build County agroforestry seeds and seedlings value chain actors c) Certification of Agroforestry seeds and seedlings d) Establish and maintain model agroforestry nurseries e) Develop and strengthen indigenous seed conservation systems and gene banks at National, County, and community level
2.	Enhance productivity and development of agroforestry value chains	<ul style="list-style-type: none"> a) Identification, prioritization and promotion of different agroforestry value chains for commercialization across the country b) Enhance efficiency in production, processing and marketing for priority value chains c) Develop and implement viable business incubation models for youth in agroforestry d) Strengthen county-based farmer and farmer organizations/associations/ cooperatives and CBOs
3.	Enhance valuation of agroforestry goods and services	<ul style="list-style-type: none"> a) Develop and operationalize models for the valuation of agroforestry-related ecosystem goods and services b) Develop standards for grading and valuation of agroforestry products and services c) Develop and operationalize systems for certification/traceability/chain of custody in agroforestry

3.5 Climate Change Action

Agroforestry plays a critical role in climate change mitigation and adaptation mainly through enhancing carbon sequestration, improving soil health, and increasing biodiversity. By capturing and storing carbon in biomass and soils, agroforestry reduces greenhouse gas emissions, thus mitigating against negative climate change effects. It enhances resilience by improving water retention, reducing soil erosion, and providing diversified income sources for smallholder farmers, making agricultural systems more adaptable to climate variability. Additionally, agroforestry contributes to ecosystem services provisioning such as air purification, temperature regulation, and habitat conservation, making it a sustainable strategy for addressing climate challenges while supporting rural livelihoods. The pillar has One (1) strategic objective and Four (4) strategies as shown below.



Table 10: Strategic objectives and strategies: Climate Change Action

S/No.	STRATEGIC OBJECTIVE	STRATEGIES
1.	To enhance mitigation and adaptation to climate change through agroforestry development	<ul style="list-style-type: none"> a) To enhance restoration of degraded landscapes in private and community lands through agroforestry b) Promote agroforestry related Nature-based solutions c) Enhanced biodiversity conservation through agroforestry d) Develop carbon market standards for agroforestry systems

3.6 Gender, Youth and Social Inclusion in Agroforestry Development

This pillar focusses on embedding gender transformative approaches on women, youth and marginalized groups in agroforestry development. It addresses the strategic issues hindering the above groups from effective participation in agroforestry development. The pillar has three (2) strategic objectives and Twelve (5) strategies as shown in the table below

Table 11: Strategic objectives and strategies: Gender, Youth and Social Inclusion in agroforestry development pillar

S/No.	STRATEGIC OBJECTIVE	STRATEGIES
1.	To enhance effective participation and decision-making capacity of women, youth, and marginalized groups in agroforestry development	<ul style="list-style-type: none"> a) Develop and promote use of gender friendly infrastructure and equipment for agroforestry. b) Mainstream innovative technological, financial and extension models suitable for women, youth and marginalized groups in agroforestry development. c) Promote customized investment models for women, youth, and marginalized groups.
2.	To promote social innovations that enhance access to land and tree resources	<ul style="list-style-type: none"> a) Develop and promote socially inclusive platforms for information sharing on land rights, laws, and policies, related to agroforestry. b) Promote mechanisms to ensure equitable access to and benefit sharing among women, youth and marginalized groups in agroforestry



funky

Pepper
R 50/kg

Pepper
R 50/kg

Pepper
R 50/kg

Celery
-table
R 51/kg

Carrots
orange
R 20 /kg

4.0 STRATEGY IMPLEMENTATION, COORDINATION MONITORING, AND EVALUATION

4.1 Introduction

The successful implementation of this strategy will rely on inter-ministerial, inter-agency, and multi-stakeholder collaboration, harnessing synergies across sectors that support agroforestry development in Kenya. Implementation will primarily be undertaken by ministries, departments, and agencies (MDAs) responsible for forestry, agriculture, and county governments.

The private sector, development partners, non-governmental organisations (NGOs), civil society organisations (CSOs), and community-based organisations (CBOs) will play a pivotal role in resource mobilisation, technical support, and implementation.

This chapter presents the coordination, resource mobilization plan, and the monitoring, evaluation, and learning (MEL) framework for the strategy.

4.2 Coordination framework for the agroforestry strategy implementation

Implementation will be coordinated by the ministry responsible for agroforestry. The director responsible for agroforestry will be responsible for monitoring implementation progress and convening stakeholder meetings to discuss implementation progress

4.3 Resource mobilization

It is estimated that KES 7.17 billion will be required for the ten (10) years implementation period of this strategy. This is broken down below;

Table 12: Financial resources required for Agroforestry Strategy

Pillars of Strategy	Amount (Mil KES)	Amount (Mil USD)
1 USD = KES 130		
Policy, Legal and Institutional Frameworks	461.00	3.55
Finance and Investment	864.00	6.65
Education, Research, Innovation, and Knowledge Management	2,980.00	22.92
Agroforestry Value Chains Development	1,935.00	14.88
Climate Change Action	564.00	4.34
Gender, Youth and Social Inclusion in Agroforestry Development	368.00	2.83
Sub-total	7,172.00	55.17

The strategy is primarily expected to be funded from the national and county government budgets. As such, there will be need to prioritize and mainstream agroforestry development in National and Sub-national Planning and budgeting processes. This can be done through demonstration of the positive impacts of agroforestry on socioeconomic development.

As the funding from the exchequer will not be adequate for the implementation of this strategy, contributions from development partners will also be sought. Such contributions will be channeled through the proposed Agroforestry Development Facility to be established as part of finance and investments strategy. The State department responsible for the agroforestry function and the national treasury will be responsible for the management and operationalization of the fund.

Counties may have alternative institutional arrangements relevant to agroforestry to guide allocation of resources to implement their agroforestry functions. Opportunities for private sector investment will be identified across agroforestry-based value chains including wood and non-wood products such as food products, fuel wood and ecosystem services.

In kind support for the implementation of this strategy will be coordinated by the relevant implementing institutions.

4.4 Monitoring, Evaluation, and Learning

Monitoring and evaluation are critical in assessing and tracking the progress of the strategy implementation to ensure it is impactful, cost effective and well-coordinated.

The monitoring, evaluation, and learning strategy aims at achieving the following objectives:

- Assess the outcomes and long-term impacts of agroforestry projects and programs.
- Guide new and ongoing agroforestry programmes and projects to maximize effectiveness and efficiency.
- Provide a framework for knowledge management and information sharing.
- Inform decision making on new and ongoing agroforestry programmes and projects
- Ensure accountability to stakeholders
- Provide evidence of the contribution of agroforestry to the country's development outcomes.

4.4.1 Monitoring strategy implementation

The strategy implementation will be monitored quarterly, biannually and annually. Each implementing entity will establish Specific, Measurable, Achievable, Realistic and Timebound (SMART) indicators for short and long-term monitoring. These key performance indicators (KPIs) for each implementing entity will contribute to the overall M&E framework for the strategy. Agroforestry projects at both the National and County level will align to the pillars of the National agroforestry strategy. This will enable all parties to monitor the performance of agroforestry in the country in a coordinated manner.

The technical coordination committee will coordinate monitoring and reporting of the progress achieved in the implementation of the strategy. This will be channeled to the various committees for decision making.



4.4.2 Evaluation

The technical coordination committee in consultation with the implementing entities will conduct evaluations to determine the adoption and change in actions necessary at the household or community level. Change in tree cover will be tracked using spatial tools combined with farm-level data.

4.4.3 Impact assessment

Impact assessment measures the intermediate and long-term changes. Surveys to measure the impact of agroforestry will be done at year 3 (short term), Year 6 (Medium term and year 10 (long term). Impact assessments on agroforestry will establish the degree to which different pathways contribute to the proposed outcomes. They will be undertaken by the implementing agencies and the results shared with the technical coordination committee for compilation and generating of a national progress report.

4.4.4 Roles and process

The technical coordination committee will have an overall responsibility for monitoring and evaluation. Each of the implementing entities will be responsible for monitoring specific activities under the pillars.

The technical coordination committee will guide the application of the M&E system, collation of data as well as conduct evaluation. The committee will ensure alignment with the National Integrated Monitoring and Evaluation Systems (NIMES). The unit responsible for agroforestry will carry out internal monitoring in collaboration with the CPPMD and report to the Ministry responsible for planning and broader dissemination to stakeholders. They will also ensure inclusion of monitoring figures to national targets and commitments through multilateral agreements (such as the CBD, NDCs and Bonn Challenge/AFR100 – within the Ministry responsible for Environment).





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Annex 1: Implementation matrix

Strategic Obj.	Strategic Interventions	Expected outputs	Indicator	Target	Budget (Mln KES)	Priority Timeline (ST <3 Yrs; MT 3-6 yrs LT > over 6)	Responsible Entity
PILLAR 1: Policy, Legal and Institutional Frameworks							
1.1 To strengthen policy, legal and institutional frameworks for agroforestry development	a) Develop, review and harmonize relevant policies, laws, regulations and strategies on agroforestry development.	Policy Gaps identified and documented	No assessment reports	10	60	ST	MECCF, MOALD, MEACARD, KIPPRA, -CG,
	b) Mainstream agroforestry in relevant National and County policies, laws, and regulations	Relevant policies/ guidelines/ strategies developed/ reviewed/ harmonized	No	5	45	ST/MT/LT	MECCF, MOALD, MEACARD, CG
	c) Advocate for innovative land and tree tenure arrangements for agroforestry development.	Relevant policies, laws, regulations, strategies, plans and programmes that have mainstreamed agroforestry	No	5	30	ST/MT/LT	MECCF, MOALD, MEACARD, CG
	d) Domesticate and adopt ratified international and regional treaties and agreements that support agroforestry.	Sensitization and consultation forums held	No	10	60	MT	MECCF, MEACARD, MoLPP, CGs, Development partners, NGOs
	e) Integration of agroforestry into National climate policy and legal frameworks	Treaties and agreements domesticated and adopted	No	5	10	ST/MT/LT	MECCF, MOALD, CGs, MEACARD, Communities
		Climate change policies and legal frameworks that have integrated agroforestry	No	1	6	LT	MECCF, MOALD, County Govts, Development partners, NGOs



1.2 To develop effective fiscal and non-fiscal incentives to enhance adoption of agroforestry	a) Develop and promote structured incentive schemes for agroforestry development. b) Mainstream payment for ecosystem services (PES) in agroforestry related policy and legal frameworks.	Incentives schemes developed and promoted	No	15	50	MT	MECCF, MOALD, The National Treasury, CGs, Development partners, NGOs, Private sector
		Agroforestry related policy and legal frameworks that have mainstreamed payment for ecosystem services	No	5	30	MT/LT	MECCF, MOALD, The National Treasury, CGs, Development partners, Private Sector, NGOs
1.3 To enhance coordination of Agroforestry development	a) Establish and operationalize inter-sectoral/ multi-stakeholder platform for enhanced coordination of agroforestry development and information sharing b) Capacity build stakeholders on agroforestry development	Inter-sectoral coordination framework established/ operationalized	No. of frameworks	10	30	ST/MT	MECCF, MOALD, CGs, Development partners, NGOs, Private sector
		Stakeholder engagements	No	47	45	ST/MT/LT	MECCF, MOALD, CGs, Development partners, NGOs, farmer umbrella organizations, Private sector
1.4 To strengthen capacity in key institutions and stakeholders in Agroforestry development	a) Capacity build county governments in development and implementation of County specific agroforestry programmes b) Strengthening capacity for farmers' organisations and networks for promoting agroforestry in Counties	County governments engagements and trainings	No	47	45	ST	MECCF, MOALD, CGs, Development partners, NGOs, farmer umbrella organizations
		Counties capacity built	No.	47	50	ST/MT/LT	MECCF, MOALD, MCMSMD, MEACARD, CGs, Development Partners, Private Sector, NGOs, Farmer umbrella organizations
Sub Total KES (Millions)					461		

PILLAR 2: FINANCE AND INVESTMENT

2.1 To enhance investment and financing for agroforestry development	a) Enhance budgetary allocation for agroforestry development at national and county levels	National Agroforestry forums held	No	10	250	ST/MT/LT	MECCF, The National Treasury, County Governments
	b) Develop and operationalize payments for ecosystem services (PES) schemes for sustainable management and use of land resources	Capacity building forums for Payments for Ecosystem Services Schemes development and monitoring	No	47	282	MT, LT	The National Treasury, MECCF, Development partners, NGOs, Private sector, CGs
	c) Enhance climate financing in agroforestry through promotion of carbon trading schemes	Capacity building on agroforestry Carbon projects	No.	47	282	ST/MT/LT	The National Treasury, MECCF, Development partners, NGOs, Private sector, Community.
	d) Develop and operationalize agroforestry development facility	Agroforestry development facility developed	No	1	50	MT/LT	The National Treasury, MECCF, MOALD, CGs Development partners, NGOs, Private sector
Sub Total KES (Millions)							864

PILLAR 3: EDUCATION, RESEARCH, INNOVATION, AND KNOWLEDGE MANAGEMENT

3.1 To enhance capacity and skills for Agroforestry development	a) Standardization of operational procedures for Agroforestry development	Standards and extension guidelines developed	No	1	10	ST	MECCF, MOALD, NGOs, Development partners, Private sector, CBOs
	b) Mainstreaming Agroforestry in learning institutions	Curriculum Reviewed/ developed/harmonized	No	4	40	MT	MECCF, MOE, MOALD, NGOs, Development partners, Private sector
	c) Strengthening extension and advisory services in Agroforestry	Innovative extension and advisory approaches promoted	No.	10	30	ST/MT/LT	MECCF, MOE, MOALD, CG, KFS, KEFRI, KALRO, NGOs, TVETA, Development partners, Private sector



3.2 To strengthen research, innovation and dissemination in Agroforestry development	a) Strengthen Agroforestry infrastructure for research, innovations, technologies and dissemination	No	47	470	ST/MT/LT	MECCF, MOE, MOALD, COG, KFS, KEFRI, KALRO, NGOs, TVETA, Academia Development partners, Private sector
	b) Establish and strengthen county, regional, and national research and business incubation centers for agroforestry	No.	47	705	ST/MT/LT	KFS, KEFRI, KALRO, ICRAF, Academia, ICRAF, KIRDI, Private Sector
	c) Promote and enhance participatory and action research in agroforestry	No	10	80	ST/MT/LT	CGs, KFS, KEFRI, KALRO, NGOs, TVETS, Academia Development partners, Private sector
	d) Strengthen linkages for collaborative research, technology development and dissemination in agroforestry	No	10	30	ST/MT/LT	CGs, KFS, KEFRI, KALRO, NGOs, TVETS, Academia Development partners, Private sector
	e) Strengthen technical liaison between policy, research, extension, and practitioners in agroforestry value chain	No.	15	10	ST/MT/LT	CGs, KFS, KEFRI, KALRO, NGOs, TVETS, Academia Development partners, Private sector
	f) Enhance breeding of agroforestry species	No.	20	60	ST/MT/LT LT	CGs, KFS, KEFRI, KALRO, NGOs, TVETS, Academia Development partners, Private sector KEFRI, KALRO, NGOs, TVETS, Academia Development partners, Private sector

3.3 To enhance knowledge management for agroforestry development	a) Develop and operationalize agroforestry knowledge management and sharing systems. b) Promote innovative approaches for documentation, packaging and dissemination of agroforestry best practices c) Enhance participatory monitoring, evaluation and learning	Agroforestry Knowledge management and sharing systems developed Agroforestry best practices documented, packaged and disseminated Monitoring and Evaluation Reports	No.	3	15	MT/LT	MECGF, MOALD, MoICT CGs, NGOs,, Academia, Development partners, Private sector MECGF, MOE, MOALD, MoICT CGs, Academia, Development partners, Private sector MECGF, MOE, MOALD, CGs, ICTA, KFS, KEFRI, KALRO, NGOs, TVETA, Academia Development partners, Private sector
SubTotal KES (Millions)					2,980		



PILLAR 4: AGROFORESTRY VALUE CHAINS DEVELOPMENT

<p>4.1 To enhance production and supply of quality seeds and seedlings of diverse agroforestry species</p>	<p>a) Establish, Maintain and protect quality seed sources.</p>	<p>Seed sources established</p>	<p>No</p>	<p>20</p>	<p>40</p>	<p>ST/MT</p>	<p>KEFRI, KFS, KALRO, KEPHIS, ICRAF, CSOs, NGOs, Private Sector</p>
	<p>b) Capacity build County agroforestry seeds and seedlings value chain actors</p>	<p>Seed sources protected</p>	<p>No</p>	<p>40</p>	<p>80</p>	<p>ST/MT</p>	<p>KEFRI, KFS, KALRO, ICRAF, CSOs, NGOs, Private Sector</p>
	<p>c) Certification of Agroforestry seeds and seedlings</p>	<p>Trainings undertaken</p>	<p>No</p>	<p>47</p>	<p>282</p>	<p>ST/MT/LT</p>	<p>MECCF, MoALD, SDARD, KFS, KEFRI, MOALF, NGOs, Private Sector</p>
	<p>d) Establish and maintain model agroforestry nurseries</p>	<p>Agroforestry seed producers certified</p>	<p>No.</p>	<p>40</p>	<p>80</p>	<p>MT</p>	<p>KEPHIS</p>
	<p>e) Strengthen Indigenous Seed Conservation systems and Gene Bank at National, County and Community Level</p>	<p>Agroforestry nurseries certified</p>	<p>No</p>	<p>290</p>	<p>290</p>	<p>ST/MT/LT</p>	<p>KEFRI, KALRO, KEPHIS</p>
		<p>No. of model nurseries established and maintained</p>	<p>No.</p>	<p>47</p>	<p>235</p>	<p>ST/MT</p>	<p>MECCF, KFS, CG, KEFRI, SDARD, Private sector</p>
		<p>Seed conservation systems strengthened</p>	<p>No</p>	<p>2</p>	<p>60</p>	<p>MT/LT</p>	<p>MECCF, MOALD, KEFRI, KALRO, KFS, CG, Private Sector, NGOs</p>
		<p>Gene Banks operationalized</p>	<p>No.</p>	<p>2</p>	<p>60</p>	<p>MT/LT</p>	<p>MECCF, MOALD, KEFRI, KALRO, KEPHIS, KFS, Private sector, NGOs</p>

4.2 Enhance productivity and development of agroforestry value chains	a) Identification, prioritization and promotion of different agroforestry value chains for commercialization	Agroforestry value chains identified, prioritized and promoted	No	47	235	MT/LT	MECCF, MOALD, MOCD, MITI, Development partners, NGOs, Private Sector
	e) b) Enhance efficiency in production, processing and marketing for priority value chains	Value chains strengthened	No	47	141	ST/MT	MECCF, MOALD, KFS, KEFRI, KALRO, KIRDI, CGs, Development partners, NGOs, Private Sector
	c) Develop and implement viable business incubation models for youth in agroforestry	Agroforestry value chain platforms established and operationalized	No	2	10	ST/MT	MECCF, MOALD, KFS, KEFRI, KALRO, KIRDI, County Governments, Development partners, NGOs, Private Sector
	d) Strengthen county-based farmer and farmer organizations/associations/cooperatives and CBOs	Incubation models developed	No	10	10		MECCF, KFS, KEFRI, MOALF, KALRO, Development Partners NGOs, Private Sector
		Cooperatives, Farmer Organizations, CBOs strengthened	No	47	282	ST	MECCF, MOALD, KFS, KEFRI, KALRO, CG, Development Partners NGOs, Private Sector

4.3 Enhance valuation of agroforestry goods and services	<p>a) Develop and operationalize models for the valuation of agroforestry-related ecosystem goods and services</p> <p>b) Develop standards for grading and valuation of agroforestry products.</p> <p>c) Develop and operationalize systems for certification/ traceability/ chain of custody in agroforestry</p>	<p>valuation Models developed and promoted</p> <p>Standards developed</p> <p>Systems for certification/ traceability and chain of custody developed and operationalized.</p>	No.	10	60	MT	<p>MECCF, KFS, KEFRI, MOALD, KALRO, CG, NGOs, Private Sector</p> <p>MECCF, MOALD, KFS, KEFRI, KALRO, MOARD, NGOs, Private Sector</p> <p>MECCF, KFS, KEFRI, MOALD, KALRO, CG, NGOs, Private Sector</p>
SubTotal KES (Millions)							1,935



PILLAR 5: CLIMATE CHANGE ACTION							
5.1 To enhance mitigation and adaptation to climate change through agroforestry development	a) To enhance restoration of degraded landscapes in private and community lands through agroforestry	Sensitization forums on agroforestry restoration strategy	No	47	260	ST/MT/LT	MECCF, MOALD SDARD, SDI, SDW, KFS, KEFRI, Private Sector, CSOs, NGOs
	b) Promote agroforestry related Nature-based solutions	Nature based solutions promoted	No	47	254	ST/MT/LT	MECCF, MOALD, SDARD, SDI, SDW, KFS, KEFRI, Private Sector, CSOs, NGOs
	c)Enhanced biodiversity conservation through agroforestry	Improved biodiversity	%	20	30	MT/LT	MECCF, MOALD, NMK, CG, KFS, KEFRI
	d) Develop carbon market standards for agroforestry systems	Standards developed	No	1	20	ST/MT	MECCF, NEMA, KEFRI, KFS, KALRO, CG, Development Partners, IROs PRIVATE SECTOR, NGOs,
Sub Total					564		



PILLAR 6: GENDER, YOUTH AND SOCIAL INCLUSION IN AGROFORESTRY DEVELOPMENT									
6.1 To enhance effective participation and decision-making capacity of women, youth, and marginalized groups in agroforestry development	a). Promote use of gender friendly infrastructure and equipment for agroforestry development.	Gender friendly agroforestry infrastructure and equipment promoted	No.	47	282	ST/MT	MECCF, MOALD, SDGAA, SDARD CG, KFS, KEFRI, KALRO, NGOs, Private Sector		
	b). Mainstream innovative technological, financial and extension models suitable for women, youth and marginalized groups in agroforestry.	Models Promoted	No.	10	20	ST	MECCF, MoALD, CG, KFS, KEFRI, KALRO, NGOs, Private Sector		
6.2 To promote social innovations that enhance access to land and tree resources	c) Promote customized investment models for women, youth, and marginalized groups.	Models/ mechanisms developed and promoted	No.	10	10	ST/MT	MECCF, MOA, KFS, KEFRI, NGOs, Private Sector		
	a). Promote socially inclusive platforms for information sharing on land rights, laws, and policies related to agroforestry	Platforms promoted	No.	10	10	ST/MT	MECCF, MOALD, CG, SDGAA KFS, KEFRI, KALRO, NGOs, Private Sector		
	b). Promote mechanisms to ensure equitable access to land and benefit sharing among women, youth and marginalized groups in agroforestry	Gender sensitive land and tree tenure systems promoted	No.	23	46	ST/MT/LT	MECCF, MOALD, SDLPP, CG, KFS, KEFRI, NGOs, Private Sector		
SubTotal KES (Millions)					368				
Total KES (Millions)					7,172.00				

Annex 2: Agroforestry Related Value Chains by Agro Ecological Zones in Kenya

S. No	Agro Ecological Zone	Counties	Tree Resource Value Chains	Crops	Livestock
1	<p>Highland Tropics (Zones i - iii), Cool and Wet Rainfall: 1,000 - Over 2,000 mm annually Soils: Volcanic suitable for tea, coffee, dairy and horticulture</p>	<p>a) Central Kenya- Nyeri, Kirinyaga, Murang'a, Kiambu, Nyandarua b) Rift Valley Highlands - Kericho, Bomet, Nakuru, Nandi, Elgeyo Marakwet Western Highlands - Trans Nzoia and Uasin Gishu c) Overlapping Counties - Upper (Meru, Embu, Tharaka Nithi) d) Other Humid Highland Counties: Kisii, Nyamira</p>	<p>i) Timber, poles, fuel wood: Eucalyptus, <i>Juniperus procera</i>, Grevillea, <i>Podocarpus</i> spp, Cypress, Pine, <i>Prunus africana</i>, Meru oak (<i>Vitex keniensis</i>), <i>Markhamia lutea</i>, mvule, <i>Zanthoxylum gillettii</i>, Elgon teak ii) Fruits and Nuts: Avocado, Macadamia, gooseberry, Apples, Plums, Pears, passion fruits, Bananas, tree tomato iii) Fodder trees and crops: Calliandra, Sesbania, <i>Tephrosia Spp</i>, <i>Tithonia spp.</i> iv) Medicinal: <i>Prunus africana</i>, <i>Zanthoxylum gillettii</i>, vi) Others: bamboo, Ecotourism</p>	<p>Tea, Coffee, Horticulture (vegetables, tubers), Maize, Wheat, Barley vi) Others: Miraa (<i>Catha edulis</i>), bamboo, Agrotourism</p>	<p>Dairy, Poultry Napier grass</p>



<p>2</p>	<p>Semi Humid (Zone iv & v) Rainfall: 600 - 1000mm annually Sorghum, millet, Casava & Livestock</p>	<p>Eastern Kenya: Machakos, Makueni, Kitui, Tharaka Nithi, Lower (Embu and Meru) Coastal Hinterland: Taita Taveta, Kwale, Kilifi</p>	<p>i) Timber, poles, fuel wood: <i>Melia volkensii</i>, <i>Gmelina arborea</i>, <i>Acacia</i> spp, <i>Azadirachta indica</i>, <i>Dalbergia melanoxylon</i>, Casuarina, Grevillea, <i>Terminalia brownii</i>, ii) Fruits and Nuts: Mangoes, Citrus, Pawpaw, custard apple, Baobab, <i>Tamarindus indica</i>, guava, <i>Sclerocarya birrea</i>, <i>Berchemia discolor</i>, <i>Vitex payos</i> iii) Fodder trees and crops: <i>Acacia</i> spp, <i>Balanites aegyptica</i>, <i>Leucaena</i> spp, Calliandra, <i>Gliricidia sepium</i> Medicinal plants: <i>moringa</i> spp, <i>Azadirachta indica</i>, <i>Albizia anthelmintica</i> Charcoal and biofuel: <i>Acacia</i> spp, <i>Terminalia</i> spp, <i>Prosopis juliflora</i>, <i>Croton megalocarpus</i>, Castor plant Wood carving: <i>Dalbergia melanoxylon</i>, <i>Jacaranda mimosefolia</i>, <i>Brachylaena huillensis</i>, <i>Olea europaea</i>, iv Others: Apiculture, charcoal</p>	<p>Pigeon peas, green grams, cowpeas, sorghum, millet, cassava,</p>	<p>Poultry, cattle (Dairy and beef), goat</p>
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<p>3</p>	<p>Arid and Semi-Arid Lands (ASALS Zones vi - vii) Hot and Dry Rainfall: Low & erratic, < 600 mm annually</p>	<p>Northern Kenya: Turkana, Marsabit, Mandera, Wajir, Garissa, Isiolo</p> <p>South-Eastern ASALS: western parts of Kitui, Tana River, Lamu Inland Southern Rift: Kajiado, Southern Narok, Samburu & Baringo</p> <p>Overlaps: Parts of Laikipia, Southern Nakuru & West Pokot</p>	<p>i) Timber, poles, fuel wood: <i>Melia volkensii</i>, <i>Acacia</i> spp, <i>Azadirachta indica</i>, <i>Dalbergia melanoxylon</i>, <i>Terminalia</i> spp,</p> <p>ii) Fruits and Nuts: Mangoes, Citrus, Pawpaw, custard apple, Baobab, Tamarindus indica, guava, Dates, <i>Sclerocarya birrea</i> (Marula)</p> <p>iii) Fodder trees and crops: <i>Acacia</i> spp, <i>Balanites aegyptiaca</i>, <i>Leucaena</i> spp,</p> <p>iv) Medicinal: moringa spp, <i>Azadirachta indica</i>, <i>Warbugia ugadensis</i>, <i>Salvadora persica</i>,</p> <p>iv) Gums and Resins: <i>Acacia senegal</i>, <i>Acacia seyal</i>, <i>Commiphora myrrha</i>, <i>Commiphora holtziana</i>, <i>Boswellia neglecta</i>,</p> <p>v) Charcoal and biofuel: <i>Acacia</i> spp, <i>Terminalia</i> spp, <i>Prosopis juliflora</i>, <i>Croton megalocarpus</i>, Castor plant</p> <p>Essential oils: Sandalwood, <i>Eucalyptus</i> spp,</p> <p>vi) Others: Aloe vera, Apiculture, Ecotourism</p>	<p>sorghum, millet, irrigated agriculture, green grams, Cow peas, Pigeon peas</p>	<p>Pastoralism (cattle, camel, goat, sheep)</p> <p>Pasture (<i>Cenchrus ciliaris</i>, <i>Eragrostis superba</i>)</p>
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<p>4</p>	<p>Coastal Lowlands: Hot & humid climate Rainfall: seasonal rainfall of 800 - 1200mm annually</p>	<p>Mombasa, Kilifi, Kwale, Lamu, Tana River</p>	<p>i) Timber, poles, fuel wood: <i>Terminalia</i> Spp, <i>Combretum Molle</i>, <i>Dalbergia melanoxylon</i>, <i>Melia volkensii</i>, <i>Acacia</i> spp, <i>Azadirachta indica</i>, <i>Casuarina equisetifolia</i>, <i>Gmelina arborea</i>, <i>Azelaia quanzensis</i>, <i>Terminalia brownii</i>, <i>Tectona grandis</i> ii) Fruits and Nuts: Mangoes, Cashew nuts, Citrus, Pawpaw, Baobab (<i>Adansonia digitata</i>), <i>Tamarindus indica</i>, coconut, pomegranate, <i>Vitex doniana</i> iii) Fodder trees and crops: <i>Acacia</i> spp, <i>Balanites aegyptica</i>, <i>leucaena</i> spp, <i>Calliandra</i> Medicinal: <i>Moringa</i> spp, <i>Azadirachta indica</i>, Charcoal and biofuel: <i>Acacia</i> spp, <i>Terminalia</i> spp, <i>Prosopis juliflora</i>, <i>Croton megalocarpus</i>, Castor plant Edible oils: Coconut iv) Others: Ecotourism, agrotourism</p>	<p>Sisal, Groundnut, Pineapple, Cassava, Cowpeas, Sunflower, and Irrigated Crops (Tana River Delta)</p>	<p>cattle, goats, poultry, fisheries</p>
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<p>5</p>	<p>Lake Victoria Basin: Hot and Wet Rainfall: 1200 – 2000 mm annually</p>	<p>Kisumu, Siaya, Homabay, Migori, Busia, Bungoma, Kakamega Overlaps: Vihiga, Kisii, Nyamira</p>	<p>i) Timber, poles, fuel wood: <i>Eucalyptus</i> spp, <i>Cordia africana</i>, <i>Markhamia lutea</i>, <i>Terminalia</i> Spp, <i>Olea africana</i>, <i>Olea capense</i>, <i>Maesopsis eminii</i>, <i>Grevillea robusta</i>, Cypress, Meru oak (<i>Vitex keniensis</i>), <i>Prunus africana</i>, ii) Fruits and Nuts: <i>Syzygium cuminii</i>, guava, loquats, <i>Vitex payos</i>, Avocado, pawpaw, Mango, Jackfruit, white supporter iii) Fodder trees and crops: Calliandra, Sesbania, <i>Tephrosia</i> Spp, Tithonia, <i>Crotalaria grahamiana</i> iv) Edible oils: <i>Elaeis guineensis</i> (African Palm Oil) v) Other Bamboo, apiculture</p>	<p>Sugarcane, maize, sunflower, groundnuts, bananas, sorghum, finger millet, pineapple, indigenous vegetables, mushroom, rice</p>	<p>Cattle, goats, poultry, apiculture, aquaculture, sericulture</p>
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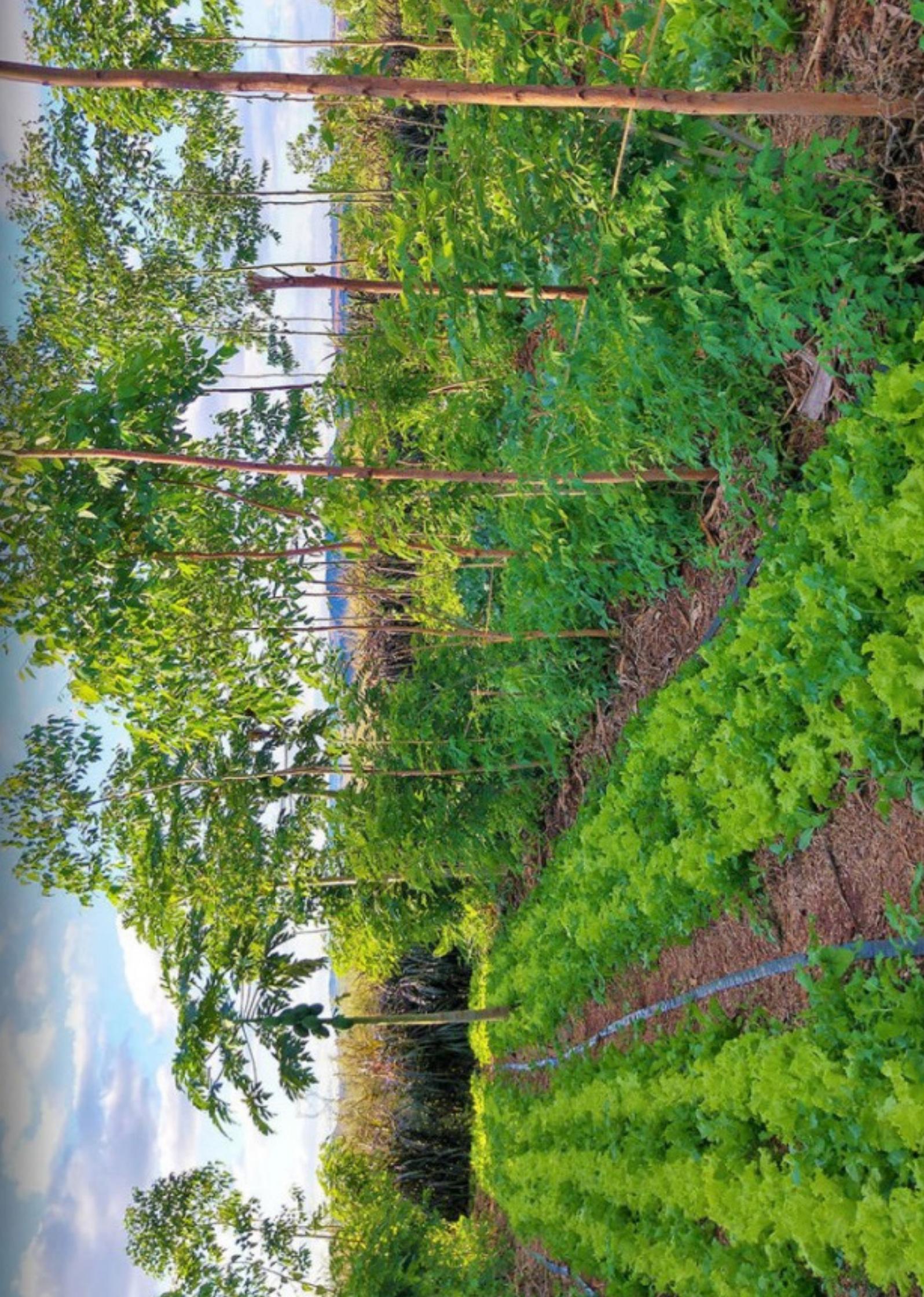
<p>6</p>	<p>Moist and Dry Transition Zones Rainfall: 700 - 1400mm annually- Variable</p>	<p>Nakuru Central, Laikipia Central, Narok North and Nakuru - Naivasha Basin</p>	<p>i) Timber, poles, fuel wood: <i>Acacia spp</i>, <i>Terminalia spp</i>, <i>Eucalyptus spp</i>, <i>Warbugia ugadensis</i> ii) Fruits and Nuts: Pawpaw, citrus, tree tomato, iii) Fodder trees and crops: Calliandra, Sesbania, Tephrosia Spp, Tithonia, <i>Crotalaria grahamiana</i> Charcoal and biofuel: <i>Acacia spp</i>, <i>Terminalia spp</i>, <i>Prosopis juliflora</i>, <i>Croton megalocarpus</i>, Castor plant iv) Others: Apiculture</p>	<p>Mixed farming: maize, beans and horticulture (cut flowers), onions</p>	<p>Dairy, beef, goat, sheep, donkeys Others: Apiculture</p>
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Annex 3: Technical Working Group Membership for strategy development

S. No	Name	Organization
1.	Mr. George Tarus	State Department for Forestry
2.	Dr. Anthony Macharia	State Department for Forestry
3.	Ms. Veronicah Maina	Council of Governors
4.	Ms. Beatrice Atemo	State Department for Forestry
5.	Dr. Robert Nyambati	Kenya Forestry Research Institute
6.	Ms. Mercy Rutto	Kenya Forestry Research Institute
7.	Mr. Oscar Simanto	Kenya Forest Service
8.	Ms. Ziporrah Toroitich	Kenya Forest Service
9.	Mr. Francis Nyambariga	State Department for Irrigation
10.	Mr. Willie Too	State Department for Agriculture
11.	Mr. John Olela	State Department for Economic Planning
12.	Mr. Phillip Kisoyan	Food and Agriculture Organization of the United Nations
13.	Prof. Catherine Muthuri	CIFOR - ICRAF
14.	Dr. Monica Nderitu	Vi - Agroforestry
15.	Dr. Yasuko Inoue	JICA
16.	Dr. Judy Matu	AWAK Kenya
17.	Ms. Mary Irungu	PELUM Kenya







For further information, please contact:

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