

### **KENYA FORESTRY RESEARCH INSTITUTE**

## **STRATEGIC PLAN** 2013 - 2018

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Layout and design: Dorothy Ochieng & Daniel Munga

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#### LIST OF ACRONYMS

ASK	Agricultural Society of Kenya
BOD	Board of Directors
BSC	Balanced Score Card
CBOs	Community Based Organisations
CC	Consultative Committee
CFAs	Community Forest Associations
Со	Company
COP	Conference of Parties
CRAC	Centre Research Advisory Committee
EMCA	Environmental Management and Coordination Act
EMS	Environmental Management System
FORNESSA	Forestry Research Network of Sub-saharan Africa
GDP	Gross Domestic Product
GOK	Government of Kenya
ICT	Information Communication Technology
IT	Information Technology
IPCC	Intergovernmental Panel on Climate Change
IPR	Intellectual Property Right
ISO	International Organisation for Standardisation
IUFRO	International Union of Forest Research Organisations
KARI	Kenya Agricultural Research Institute
KEFRI	Kenya Forestry Research Institute
KENGEN	Kenya Electricity Generating Company
KEPHIS	Kenya Plant Health Inspectorate Service
KFMP	Kenya Forest Master Plan
KFS	Kenya Forest Service
Kshs	Kenya Shillings
LAN	Local Area Network
Ltd	Limited
LVBC	Lake Victoria Basin Commission
M & E	Monitoring and Evaluation
m <sup>3</sup>	Cubic metre

MDG	Millennium Development Goal
MTP	Medium Term Plan
NCCRS	National Climate Change Response Strategy
NFP	National Forest Programme
NGO	Non Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
PES	Payment for Ecosystem Services
PESTLEG	Political, Economic, Social, Technological, Legal, Environmental and Governance
PFM	Participatory Forest Management
PPP	Public Private Partnership
QMS	Quality Management System
R&D	Research and Development
RD	Regional Directors
REDD+	Reducing Emission from Deforestation and Forest Degradation,
	and Role of Conservation, Sustainable Management of Forests and
	Enhancement of Forest Carbon Stocks
RMS	Risk Management System
SME	Small and Medium Enterprise
STI	Science Technology and Innovation
SWOT	Strength Weaknesses Opportunities and Threats
WARMA	Water Resources Management Authority

#### **DEFINITION OF TERMS**

Mission:	What you are about; your purpose		
Vision:	What you want to accomplish in the future		
Core Values:	Your guiding principles; what you believe in, principles and philosophy at the centre of your organization		
Strategy:	How you intend to accomplish your vision		
Perspectives:	Performance dimensions; what performance lenses you use to evaluate results		
Strategic Themes:	Main focus areas or "Pillars of Excellence", used to focus staff effort on accomplishing the vision		
Strategic Results:	Desired outcome for the main focus areas		
Strategic Objectives:	Continuous improvement activity that must be performed to get results		
Strategy Map:	The "Big Picture" of how you create value that demonstrates the cause-effect relationships among the objectives that make up your strategy		
Performance Measures & Targets:	Indicators of past and future performance which show how successful you were or how successful you will be in future		
Strategic Initiatives:	Specifically, what high impact projects and programmes and activities will contribute to the desired results		
Balanced Score Card:	An integrated planning and management system tool that enables alignment of an organization's strategy to its vision and mission and uses performance measures to monitor progress		

#### FOREWORD

Kenya Vision 2030, a development blue-print is based on three pillars namely Economic, Social and Political. Forestry falls under the Social Pillar with a role of contributing to a clean and secure environment, anchored on the adoption of Science, Technology and Innovation as an implementation tool. Research has been recognized as the vehicle for accelerated economic development under Science, Technology and Innovation. KEFRI is the lead government agency in carrying out forestry research for development, and is thus playing a key role in implementation of relevant aspects of the Social Pillar.



Prof. Daniel N. Mugendi

During the First Medium Term Plan of Vision 2030, KEFRI played an instrumental role towards; increasing the forest cover, rehabilitation of water towers, and development of technologies for sustainable forest management. KEFRI also contributes to the Economic Pillar, especially on resilience of the Agricultural Sector through development of various technologies for integration of trees in farming systems that support livelihood improvement and creation of tree based wealth. KEFRI will continue to play its key role in development of appropriate technologies, products and services for sustainable forest management.

It is appreciated that the operating environment has changed over time, and lessons have been learnt during implementation of KEFRI's 4<sup>th</sup> Strategic Plan (2008-2012). Consequently, it was imperative to review these experiences and use the lessons learnt in the development of KEFRI's 5<sup>th</sup> Strategic Plan. This 5<sup>th</sup> Strategic Plan (2013-2018), emphasizes on Results Based Management, the driving force for public service delivery. This Strategic Plan is therefore aligned to strategic priorities of the Government as outlined in various government policy documents including: Medium Term Plan II of Vision 2030; relevant national development goals in the National Forestry Plan; and Ministry of Environment, Water and Natural Resources Strategic Plan; all in line with the Constitution of Kenya.

The KEFRI Board of Directors is committed to full implementation of this Strategic Plan. The Board will work closely with KEFRI management, the parent ministry and all stakeholders to ensure that proper management frameworks are in place for successful implementation of the Plan. The Board will also ensure that the Strategic Plan is implemented through timely preparation of annual workplans and performance contracts derived from the Plan, and regular monitoring and evaluation through quarterly Board meetings.

On behalf of the Board of Directors, I register my appreciation to all those who were involved in preparation of this Strategic Plan, particularly KEFRI Management and staff for their relentless commitment. With creativity and innovation, professionalism, integrity, teamwork and partnership, I am confident that the 5<sup>th</sup> KEFRI Strategic Plan (2013-2018) will be successfully implemented.

-eli

Prof. Daniel N. Mugendi Chairman, KEFRI Board of Directors

#### PREFACE

This Strategic Plan outlines approaches KEFRI will apply in undertaking forestry research and development in the next five years in line with the Institute's mandate and functions. The Plan will guide and steer the Institute towards contributing to realisation of Vision 2030's aspiration of a *'globally competitive and prosperous nation with a high quality of life by 2030'*. This Strategic Plan has identified strategic themes, strategic results and strategic objectives to guide the Institute in contributing to actualization of national development goals. The Plan succeeds the 4<sup>th</sup> KEFRI Strategic Plan (2008-2012) that



Dr. Ben E. N. Chikamai

was prepared in conformity with Vision 2030 and its First Medium Term Plan.

KEFRI's 4<sup>th</sup> Strategic Plan research agenda was influenced by the Kenya Forest Master Plan developed in 1995 that placed emphasis on establishment of forest-based programmes as vehicles for implementing forestry development activities in the country. The Plan was implemented successfully as noted by the Midterm and End-of-Plan reviews. Key achievements included; a positive contribution to increase in the national forest cover to 6.9% surpassing the Vision 2030 First Medium Term Plan target of 4%, generation of technologies for rehabilitation of the five main water towers, and successful development and piloting of technologies for control and management of Prosopis invasion in Kenya.

Other notable achievements during the 2008-2012 Plan include; strengthening institutional infrastructure by building one office block each in Gede (Coast Eco-region), Turbo and Marigat (Rift Valley Eco-region), Kakamega (Lake Victoria Basin Eco-region) and Garissa (Drylands Eco-region), as well as a modern quarantine insectary at Muguga (Central Highlands Eco-region). Information Communication Technology (ICT) was deployed in Accounts, Supply Chain Management and Human Resource Divisions to increase efficiency and effectiveness.

To conform to international standards of environmental management, the Institute was ISO 14001:2004 EMS certified in June 2011. The 4<sup>th</sup> Strategic Plan period also saw enhancement in resource mobilization from the exchequer, donor partners and internal sources through establishment of Resource Mobilization and Enterprise offices.

Nevertheless, a number of challenges were noted. Key among the challenges were; weak reporting structures, poor alignment of objectives to budgetary provisions, and weak monitoring and evaluation of performance against set targets.

This 5<sup>th</sup> Strategic Plan has therefore been developed to build on gains made and lessons learnt during implementation of the 4<sup>th</sup> Strategic Plan. Specifically, in developing this Plan, the Balance Score Card (BSC) was used as a new approach to setting and implementing objectives and initiatives to enhance performance. The BSC is an integrated planning and management system for establishing and communicating the organization's vision and mission to stakeholders and aligning operations to strategy.

In order to achieve the Institute's mission 'to conduct research and provide information and technologies for sustainable development of forestry and allied natural resources for socio-economic development' this Strategic Plan has been developed taking cognisance of relevant flagship projects under Second Medium Term Plan of Vision 2030. The Plan is also aligned to the National Forestry Programme, which places emphasis on themes. Consequently, the Strategic Plan has emphasized on thematic, multi-sectoral, and multidisciplinary approach to research. The strategic objectives of the Plan have also been aligned to the framework of performance contract requirements. The Institute will aim at diversifying and improving research products and services to meet needs of customers and stakeholders. The Strategic Plan has incorporated necessary measures to ensure that robust monitoring and evaluation is carried out to achieve the intended objectives and initiatives. Budget projections in this Strategic Plan are indicative and will be subject to annual revision based on evolving realities. Management will ensure effective implementation of this Plan and call upon our internal and external stakeholders to support us towards being 'A centre of excellence in forestry research for development'.

Ethokangi

Ben E. N. Chikamai (PhD) Director, KEFRI

## **EXECUTIVE SUMMARY**

Kenya Forestry Research Institute (KEFRI) embraced the concept of strategic planning in 1989 to guide its operations. This Strategic Plan for the period 2013-2018 is the fifth for the Institute. The Strategic Plan was developed using the Balanced Score Card (BSC) approach, a performance management tool that enables alignment of an organization's strategy to its vision and mission and uses performance measures to monitor progress.

Development of this Strategic Plan involved, among others, a review of the 4<sup>th</sup> KEFRI Strategic Plan 2008-2012, which had been aligned to Kenya Vision 2030 and its First Medium Term Plan (MTP I). The Strategic Plan builds on progress of the 4<sup>th</sup> KEFRI Strategic Plan and is aligned to; Vision 2030 and its Second Medium Term Plan (MTP II), the Kenya Constitution, and as well as relevant national development plans such as those outlined in the National Forestry Plan and the Ministry of Environment, Water and Natural Resources Strategic Plan.

In formulating this Strategic Plan, an assessment of both external and internal operating environment was undertaken. This involved undertaking strengths, weaknesses, opportunities and threats (SWOT) to determine what was feasible in the political, economic, social, technological, legal, environmental and governance (PESTLEG) setting. A stakeholder analysis was also done and crosscutting institutional issues, which affect KEFRI's effectiveness in realising its mission, were established. Results of the, SWOT, PESTLEG and stakeholders analyses facilitated the review of KEFRI's Vision and Mission.

KEFRI Mandate, Vision and Mission statements and Core Values to guide implementation of the 5<sup>th</sup> Strategic Plan are:

#### Mandate:

- i) Conduct research in forestry and allied natural resources;
- ii) Disseminate research findings; and
- iii) Establish partnerships and cooperate with other research organizations and institutions of higher learning in joint research and training.

**Mission:** To conduct research and provide information and technologies for sustainable development of forestry and allied natural resources for socio-economic development

**Core Values:** 

- Creativity and Innovation
- Professionalism
- Integrity

- Teamwork
- Clean and Healthy Environment
- Partnership

In order to achieve its Mission, KEFRI has identified strategic themes and strategic results to meet the needs of customers and stakeholders by delivering value through its products and services. Research in KEFRI during the Plan period will address five thematic research and development areas namely: Forest Productivity and Improvement (FPI); Biodiversity and Environment Management (BEM); Socio-Economics, Policy and Governance (SPG); Forest Products Development (FPD); and Technical Support Services (TSS).

Fifteen strategic objectives, indicative actions and associated results were formulated. The strategic objectives are based on four Balanced Score Card (BSC) perspectives namely; customers/stakeholders, financial, internal processes, and organizational capacity. The corporate strategic objectives for the Plan period 2013-2018 are as shown in the following table:

Perspective	Objectives		
Customer / stakeholder	<ul> <li>Enhance Vision 2030 delivery</li> <li>Enhance customer/stakeholder satisfaction and retention</li> <li>Enhance linkages and partnerships with stakeholders</li> <li>Enhance livelihoods</li> </ul>		
Financial	Reduce cost Increase revenue		
Internal processes	<ul> <li>Increase forest technologies and innovations</li> <li>Enhance multi-sectoral and public-private sector research</li> <li>Enhance knowledge management and dissemination systems</li> <li>Improve resource mobilization</li> <li>Improve corporate communication</li> <li>Improve operational efficiency</li> </ul>		
Organizational capacity	Improve staff skills and capacity         Secure land for forestry research         Improve infrastructure and facilities		

These strategic objectives are consolidated into a Corporate Strategy Map. The strategic objectives will be cascaded into Eco-regional Forestry Research Programmes, Divisions, Sections and Units.

The total estimated budget to finance implementation of this Plan for the five year period is Kshs. 7,431 million. The Institute intends to finance this budget through; the annual Government of Kenya allocation, development partners, Public-Private Sector Partnerships, and internal revenue generation. The Institute will strengthen its resource mobilisation strategies in order to raise more finances.

Detailed workplans and implementation matrices will act as tools for monitoring implementation progress of the Strategic Plan. This will be done by linking planning, budgeting and reporting through annual workplans, performance contracts and periodic reporting. The Institute shall employ a Risk Management Strategy in mitigating risks associated with implementation of the strategic objectives. An organization structure has been developed to ensure proper alignment of resources with the Institute's mission and core functions. This will enable the Institute to play its role as a facilitator in development and conservation of forests and the environment.

#### 1.0 INTRODUCTION

#### 1.1 Background

Kenya Forestry Research Institute (KEFRI) is a state corporation established in 1986, under the Science and Technology Act (Cap 250) of the Laws of Kenya. The Act has since been repealed by the Science, Technology and Innovation (STI) Act No. 28 of 2013. The Institute is under the Environmental Protection, Water and Natural Resources Sector, and undertakes research to generate and promote improved technologies for sustainable management, conservation and development of forests and allied natural resources. KEFRI is ISO 14001:2004 Environmental Management Systems (EMS) certified and conforms to international standards on environmental management and relevant national legislations.

KEFRI embraced the concept of strategic planning in 1989. The first strategic plan (1989-2000) was discipline based. The second (1999-2004) and the third (2005-2010) strategic plans were based on programmes as outlined in the Kenya Forest Master Plan (KFMP), while the fourth (2008-2012) was based on the same programmes and also aligned to the First Medium Term Plan (MTP I) of Vision 2030. This strategic plan for the period 2013-2018 is the fifth for the Institute and focuses on multidisciplinary, multi-sectoral and thematic research (Annex I). The fifth strategic plan will implement relevant areas in: the Second Medium Term Plan (MTP II) of Vision 2030; National Forestry Plan; and Ministry of Environment, Water and Natural Resources Strategic Plan; in line with the Constitution of Kenya 2010.

#### 1.2 Mandate

The mandate of KEFRI is to:

- i) Conduct research in forestry and allied natural resources;
- ii) Disseminate research findings; and
- iii) Establish partnerships and cooperate with other research organizations and institutions of higher learning in joint research and training.

#### 1.3 Review of KEFRI Strategic Plan 2008-2012

#### 1.3.1 Policy and Legal Framework

Development of KEFRI Strategic Plan 2008-2012 was informed by two key policy documents: the Kenya Forest Master Plan (KFMP 1995-2020) and the First Medium Term Plan of Vision 2030 whose goals were closely linked to Millennium Development Goals (MDGs). KEFRI therefore established four core research programmes (Farm Forestry, Natural Forests, Drylands Forestry and Industrial Forest Plantations), three research support programmes (Tree Seed, Technology Dissemination and Service Programme, and

Partnership and Networks) and a Corporate Affairs and Public Relations office. These programmes focused on; development of technologies and products, as well as provision of services for conservation and management of forestry resources.

The KFMP was instrumental in formulation of the Draft Forest Policy and Forests Act, 2005. In the Act, the focus for forest management shifted from central control by the Forest Department to a more participatory approach driven by Community Forest Associations (CFAs). KEFRI contributed to implementation of the Forests Act, 2005 through development of guidelines and capacity building of communities in participatory forest management.

During the 2008–2012 Strategic Plan implementation period, the Government embarked on developing a National Forest Programme to review the KFMP and develop a 10-year plan in the framework of international agreements. KEFRI actively participated and contributed in drafting the proposed National Forestry (Conservation and Management) Bill, which is intended to review the Forest Act, 2005 and provide a clear strategy for implementation of the Forest Policy.

In the First Medium Term Plan (2008-2012) of Vision 2030, forestry was categorized under the Environment, Water and Sanitation Sector. KEFRI contributed to the sector targets through development and promotion of technologies for; conservation of water towers and woodlands, increased forest and tree cover, management of invasive plant species particularly Prosopis, and management of industrial forest plantations.

#### 1.3.2 Major Achievements

The Institute made the following achievements under the various research, support and development programmes:

#### 1.3.2.1 Farm Forestry Research Programme

- Developed technologies including use of leguminous trees and shrubs for biomass transfer and improved fallows to enhance soil fertility and land productivity
- Selected and popularized high value tree species, including *Grevillea robusta*, *Eucalyptus* species, *Casuarina* species, *Markhamia lutea*, *Gmelina arborea* and various varieties of mangoes for on-farm planting in diverse ecological zones
- Established 20 hectares of seed orchards for selected tree species to provide high quality seed for on-farm tree growing
- Promoted commercial tree farming in Coast, Central, Rift Valley and Western Kenya regions

- Developed technologies for efficient processing of wood for timber and biomass energy
- Published guidelines on planting of Eucalyptus species
- Developed body cream and livestock feed from Jatropha curcas and Croton *megalocarpus* respectively



Integration of trees on farms

#### **1.3.2.2** Natural Forests Research Programme

- Developed technologies for rehabilitation of water catchments and degraded natural forests
- Developed technologies for management and utilization of medicinal plants
- Developed 15 utility bamboo products
- Enhanced capacity of stakeholders in bamboo growing, processing and utilization
- Published training manuals on Participatory Forest Management (PFM)



Community training on rehabilitation of degraded forests

#### 1.3.2.3 Drylands Forestry Research Programme

• Developed technologies and guidelines on harvesting and post-harvest handling of gums and resins and linked eight communities to markets



Gums harvested from Acacia senegal

- Developed technologies and guidelines on propagation of Sandalwood
- Developed five products from Prosopis as a major strategy to combat its invasive nature through utilization
- Developed technologies for management of Prosopis to promote herbaceous regeneration and biodiversity
- Published guidelines for rehabilitation of degraded areas in drylands
- Developed non-wood forest products from Aloe species, *Adansonia digitata*, *Tamarindus indica* and *Vitex payos*
- Developed technologies for domestication of indigenous species including *Terminalia brownii, Terminalia spinosa,* and *Vitex payos*



Farmers' field day on management of Melia volkensii

#### 1.3.2.4 Industrial Forest Plantations Research Programme

- Developed high yielding *Eucalyptus grandis* variety
- Developed methods for surveillance and management of tree pests and diseases
- Provided advisory services on forest pests and diseases
- Established 31 ha of seed orchards and 22 ha of seed stands to provide high quality seed for plantation tree species
- Developed web-based Decision Support System for growing Grevillea robusta



Eucalyptus poles for income generation

#### 1.3.2.5 Tree Seed Programme

- Produced and distributed 51 tonnes of high quality tree seed
- Decentralized seed supply to KEFRI regional centres, and seed stockists
- Selected, registered and mapped 20 seed sources
- Identified and trained tree seed stockists across the country

#### 1.3.2.6 Technology Dissemination and Service Programme

- Published 110 scientific papers and extension materials
- Conducted 5 Regional Social Forestry, 15 Participatory Natural Resource Management and 15 Nursery Establishment and Management courses
- Held 30 open days, 70 field days, 15 radio talks, 7 TV shows and participated in 20 ASK shows
- Published 20 print media features
- Organized and hosted a National Forestry Scientific Conference and an International (IUFRO-FORNESSA) Forestry Congress



#### 1.3.2.7 Partnership and Networks Programme

- Established 30 national and international collaborative initiatives
- Increased the number of donor funded projects from 30 to 48



Participants of IUFRO meeting hosted by KEFRI

#### 1.3.2.8 Corporate Affairs and Public Relations

- Re-branded 2 regional centres for focused research and to raise KEFRI profile in the respective eco-regions and counties
- Developed and launched KEFRI Service Charter

#### 1.3.2.9 Institutional Capacity Building

#### (a) Infrastructural Development

- Constructed one office block each in Gede, Garissa, Turbo, Kakamega and Marigat research centres, a modern quarantine insectary at KEFRI headquarters and renovated Lodwar sub-centre
- Upgraded hostels at KEFRI headquarters and Kitui Regional Research Centre

#### (b) Human Resource Development

- Trained scientists at doctorate (8), masters (6) and undergraduate (10) levels
- Carried out the following skills improvement courses: Information Communication Technology; science writing; strategic leadership and change management; senior management; finance management; electronic record management;

nursery management; Balanced Score Card (BSC); and health and safety

- Developed and operationalized new schemes of service to improve terms and conditions of service for staff
- Revised Human Resource Manual
- Established and operationalized staff medical insurance scheme
- Established Resource Mobilization, Enterprise, Planning and Budgeting, and Geographical Information System offices

#### (c) Information Communication and Technology

- Computerized Accounts, Procurement and Human Resource processes to enhance efficiency and effectiveness
- Installed Local Area Network (LAN) at headquarters, four regional centres and two sub-centres
- Enhanced internet connectivity in all centres
- Re-designed institutional website to improve communication, information sharing and institutional visibility

#### (d) Governance

- Attained ISO 14001: 2004 EMS certification
- Achieved and maintained a score of "Very Good" in the category of State Corporations under the Government of Kenya (GoK) Performance Contracting evaluation
- Undertook midterm review of the Strategic Plan 2008-2012
- Developed 2013-2018 Strategic Plan using BSC approach

#### (e) Finance

- Increased GoK funding from Kshs. 667 million to Kshs. 1 billion
- Increased donor funding from Kshs. 25 million to Kshs. 70 million
- Increased revenue from Kshs. 23 million to Kshs. 60 million

#### 1.3.3 Constraints and Challenges

Despite remarkable achievements in implementation of Strategic Plan 2008-2012, a number of challenges were encountered that hindered implementation of research and development activities. Some of the critical limitations and lessons learnt include the following:

- Reporting structure in implementation of the strategic plan was not fully adhered to thus affecting coordination, synergy and teamwork in the Institute
- Inadequate funding to implement the strategic plan
- Inadequate linkage between strategic objectives, work-plan and budgetary provisions in the strategic plan, thus reducing efficiency and effectiveness of strategy implementation
- Inadequate access to land, and insecurity of tenure in some regions hence slowing down implementation of research and development activities
- Inadequate succession planning impacted negatively on implementation of some activities
- Inadequate awareness of the strategic plan among staff
- Weak monitoring and evaluation systems that made it difficult to measure performance against set targets
- Inadequate risk mitigation mechanism that was a setback in realization of the strategic objectives

To address the above challenges and constraints, this Strategic Plan has put in place relevant objectives and strategies for channelling KEFRI resources and creating synergy towards progressively positioning the Institute on the right path to support the government in achieving Vision 2030.

## **CHAPTER TWO**

## 2.0 ROLE OF KEFRI IN IMPLEMENTATION OF NATIONAL DEVELOPMENT AGENDA

#### 2.1 Kenya Constitution 2010

KEFRI as a state corporation under Environmental Protection, Water and Natural Resources Sector will play a key role in implementation of the Constitution of Kenya in particular Article 6 on Devolution, Articles 60 to 68 on Land, and Articles 42, 69 to 72 on Environment and Natural Resources. In formulating KEFRI Strategic Plan 2013-2018, the Institute sought to comply with the articles by developing measures and strategies to:-

- i) Develop forest technologies for enhancing efficient utilization of land resources in a sustainable and productive manner
- ii) Develop technologies towards increasing forest cover to at least 10%
- iii) Establish Institutional mandate and capacity at national, county and local levels in formulation and implementation of biodiversity conservation strategies in line with the National Land Policy
- iv) Develop measures to enhance access to land for forestry research activities across the counties. This will facilitate development and dissemination of forestry technologies, products and services across the country
- v) Disseminate forestry research findings that support sound conservation and protection of ecologically sensitive areas

#### 2.2 Kenya Vision 2030

Vision 2030 is Kenya's blueprint for economic development. KEFRI will implement relevant activities and programmes under MTP II of Vision 2030 through:

- i) Generation of knowledge and technologies for development, conservation, man agement and sustainable utilisation forests
- ii) Strengthening research and management capacity
- iii) Improving tree seed and seedling production, distribution and marketing
- iv) Disseminating forestry research findings
- v) Strengthening linkages and partnership with stakeholders

#### 2.3 Ministry of Environment, Water and Natural Resources

The mandate of the Ministry of Environment, Water and Natural Resources is, "to undertake protection, conservation and development of environment and natural resources for sustainable development". The Ministry is responsible for implementing policies, strategies and development plans for conservation, protection and management of the environment, water and natural resources.

KEFRI as one of the Semi Autonomous Government Agencies within the Ministry will contribute to implementation of relevant strategic objectives and activities as outlined in the Ministry's Strategic Plan 2013-2017 which include the following:

- Review and develop policies, laws and guidelines on sustainable use of the environment
- Conservation and management of forests and allied natural resources
- Promote adoption of appropriate technologies for management of the environment
- Development of climate change adaptation and mitigation options
- Conservation of water resources through rehabilitation and protection of water sources
- Capacity building of human resources through outreach training programmes



Bamboo for rehabilitation of degraded forests

The following is a summary of KEFRI's contribution to the Ministry's strategic objectives and activities:

#### 2.3.1 Forest Policy

The overall goal of the Draft Forest Policy, 2014 is sustainable development, management, utilization and conservation of forest resources and equitable sharing of accrued benefits for the present and future generations of the people of Kenya. The policy recognizes that key decisions on forest management and conservation shall be informed by forestry science founded on appropriate knowledge derived from research and best practices. KEFRI will continue to contribute to achievement of objectives of the Policy through generation and transfer of appropriate technologies for forestry development including; production of sufficient planting materials, forest management, conversion and processing of wood and non-wood forest products, value addition and capacity building of stakeholders.

#### 2.3.2 National Forestry (Conservation and Management) Bill 2013

The Bill provides for establishment, development and sustainable management of forest resources for socio-economic development of the country. KEFRI will generate technologies for sustainable management of forests and woodlands, and contribute to Environmental Impact Assessment as well as development of: management plans; regulations and guidelines for protection and regeneration of protected species; and guidelines for participatory forest management. The Institute will also provide technical advice regarding: forest biodiversity; rare, threatened, or endangered species; and appropriate forestry practices.

#### 2.3.3 National Forest Programme

National forest programmes have been globally advocated as tools for forestry development. The Kenya Government has initiated a process of developing a National Forest Programme (NFP) to review the Kenya Forest Master Plan (1995-2020) and develop a ten-year plan in the framework of international agreements. The NFP is a long term phased process, structured in themes, and aimed at ensuring sustainable management of forests. In this Strategic Plan, KEFRI has changed its research framework from programme based research to multi-sectoral, multidisciplinary and thematic research approach and aligned its research activities to NFP themes and activities.

#### 2.3.4 National Climate Change Response Strategy, 2010

The Intergovernmental Panel on Climate Change (IPCC) recognized climate change as one of the most serious threats to sustainable development globally. This recognition resulted in a series of Conference of Parties (COPs) to address international environmental and developmental challenges. Two of the significant

outcomes of these meetings were the adoption of the Kyoto Protocol and Marrakesh Accords, which commit parties to meeting emission reduction targets. It is in this respect that the government of Kenya developed the National Climate Change Response Strategy (NCCRS) 2010, which recognizes that climate change and variability are likely to increase pressure on forests.

KEFRI will play a critical role in disseminating information for implementation of the following adaptation mechanisms identified in the National Climate Change Response Strategy: (i) promotion of afforestation and reforestation programmes (ii) promotion of agro-forestry (iii) promotion of forestry based alternative livelihood options (iv) promotion of; alternative energy sources, energy conservation initiatives, and efficient charcoal production and utilisation technologies (v) involving forest-dependent rural communities in management of forests (vi) improving timber yields and (vii) reducing the chances of pest and disease attacks.

KEFRI will also play a significant role in various climate change mitigation interventions by developing technologies for; restoration of the country's forest cover, rehabilitation and restoration of degraded forests and riverine vegetation, and sustainable management and utilization of industrial forest plantations. The Institute will also build capacity in mitigation of climate change.

#### 2.3.5 Wildlife Conservation and Management Act, 2014

The act provides for protection, conservation, sustainable use and management of wildlife in Kenya. KEFRI will contribute to development of integrated management plans and undertake environmental impact assessment for conservation and management of protected areas, such as wetlands and marine resources especially mangroves, which are important habitats for wildlife. The Institute will also contribute to development of measures, rules, guidelines, procedures and regulations for effective conservation and management of plant resources in protected areas. In addition, KEFRI will provide information on areas that are rich in plant biodiversity or contain endangered and threatened plant species.

#### 2.3.6 Water

Kenya is a water scarce country with renewable fresh water per capita at 647 m<sup>3</sup> against the United Nations recommended minimum of 1000 m<sup>3</sup>. The country faces enormous challenges in the development and management of its limited water resources which are critical to other sectors of the economy. KEFRI plays a significant role in generation of technologies for rehabilitation of the five major water towers, evaluation of status of water catchments, and building capacity of relevant stakeholders in management of water resources, thus improving water availability.

#### 2.3.7 Environment

The major development goal anticipated by Vision 2030 is having a better quality of life for present and future generations through sustainable management of environment and natural resources. Emerging challenges such as climate change, loss of biodiversity, desertification and land degradation require research interventions. KEFRI played a significant role in development of the Draft National Environment Policy and continues to contribute to the following: innovative strategies to increase forest and tree cover to at least 10%; appropriate forest-based technologies in emerging Green Economy such as carbon markets under the REDD+, Payment for Ecosystem Services (PES), and capacity building of stakeholders.

#### 2.4 Science, Technology and Innovation Act, 2013

The Science, Technology and Innovation Act No. 28 of 2013 facilitates the promotion, co-ordination and regulation of the progress of science, technology and innovation of the country; assigns priority to development of science, technology and innovation; and entrenches science, technology and innovation into the national production system. Currently, KEFRI exists under STI Act No. 28 of 2013 and will be implementing the following in line with STI Act: development of technologies and innovations in forestry and allied natural resources; patenting of innovations; documenting, disseminating and promoting scientific information and knowledge that can be utilized by stakeholders; and capacity building of stakeholders.

#### 2.5 Contribution to Other Sectors

KEFRI plays a direct or indirect role in other related areas of the economy which include; Energy, Agriculture, Industrialization, Health, Education and training, and Tourism.

**Energy:** Biomass energy contributes over 80% of Kenya's national energy needs. This scenario is expected to continue into the foreseeable future. An analysis of supply and demand of woodfuel shows that the country is currently unable to meet its woodfuel requirements. By the year 2020, annual woodfuel demand will be about 53 million tonnes while the supply would only be about 20 million tonnes, occasioning an annual deficit of 33 million tonnes. KEFRI has a role in development of technologies for management of trees for woodfuel in various ecosystems and diversification of tree species to increase productivity. The Institute also plays a role in the development of technologies for efficient charcoal production and utilization and promotion of appropriate technologies to reduce wastage of biomass. The Institute also contributes to improved water supply for power generation through development of technologies for conservation of forests.

**Agriculture:** Agriculture is the backbone of Kenya's economy. It contributes approximately 25% of the Gross Domestic Product (GDP), and employs 75% of the national labour force. Approximately 80% of the Kenyan population lives in rural areas and makes a living directly or indirectly from agriculture. KEFRI plays a major role in attainment of 10% tree cover by; developing agroforestry technologies, promoting integration of trees on farms for improved farm productivity, and diversification of high value tree species. The Institute also builds capacity of stakeholders on tree products and services value chain.



Integration of trees and crops for food security

**Industrialization:** The structural changes in attaining growth rates demanded by various government policies on poverty reduction, MDGs, and Vision 2030 require that ways be found to achieve sustainable industrial development. Small and Medium Enterprises (SMEs) have been recognized in Vision 2030 as the engine to industrialization. KEFRI plays a crucial role in development and dissemination of appropriate technologies that support growth of forest based industries and related SMEs

**Health:** Majority of Kenyans living in rural, and to some extent urban areas, depend on medicinal plants for treating various ailments. With increasing exploitation of medicinal plants, demand for scientific information for their sustainable management and utilization is rising. KEFRI generates and disseminates technologies that promote conservation, utilization and domestication of medicinal plants. The Institute also builds capacity of herbalists in conservation of specific plant species through establishment of medicinal groves. In addition, KEFRI undertakes documentation of indigenous traditional knowledge on medicinal plants.

**Education and Training:** New information and knowledge in forestry emerging from KEFRI is shared with universities and other training institutions to support teaching and knowledge-building in forestry and allied sciences. KEFRI provides relevant information through social forestry training; student internships and attachments; exchange training programmes; curriculum development; and student supervision.

**Tourism:** The tourism sector, which largely depends on wildlife, accounts for 10% of Kenya's GDP and 9% of total formal employment. Due to its numerous linkages to other sectors, tourism has great potential to generate employment and wealth. KEFRI contributes towards promotion of tourism by provision of technologies for conservation of natural forests and woodlands which are habitats for wildlife and other biodiversity. The Institute also participates in building capacity of Community Forest Associations (CFAs) which play a central role in forest conservation and promotion of eco-tourism activities.

#### 3.0 SITUATIONAL ANALYSIS

#### 3.1 Review of KEFRI SWOT Using PESTLEG

In formulating this Strategic Plan an assessment of both internal and external operating environment was made. This involved assessing internal strengths and weaknesses to ascertain the capabilities of KEFRI, as well as assessing external opportunities and threats in the political, economic, social, technological, legal, environmental and governance setting. This was undertaken to ensure that KEFRI enhances its internal strengths, maximises on opportunities, manages the weaknesses and mitigates factors that pose a threat to achievement of its planned programmes and initiatives. An analysis of crosscutting institutional issues that affect KEFRI's effectiveness in realising its mission was also carried out. This analysis included customer and stakeholder value proposition.

A summary of the Institute's Strengths, Weaknesses, Opportunities and Threats (SWOT) and Political, Economic, Social, Technological, Legislative, Environmental and Governance (PESTLEG) assessment is presented in Table 3.1.

	Strengths	Weaknesses	Opportunities	Threats
Political	<ul> <li>Autonomy</li> <li>Strong national and international support</li> </ul>	Weak linkage between politics and science	<ul> <li>Political goodwill from parent ministry</li> <li>Strong environmental advocacy</li> <li>Goodwill from global partners</li> <li>Favourable global political agenda</li> <li>Existing East Africa Community block</li> </ul>	<ul> <li>Uncertain political environment</li> <li>Frequent and unpredictable restructuring of public institutions</li> <li>Insecurity due to political instability in the neighbouring countries</li> </ul>
Economic	<ul> <li>Increasing financial support from development partners and government</li> <li>Existence of enterprise and resource mobilization units</li> </ul>	<ul> <li>Weak linkage of KEFRI products to SMEs and industries</li> <li>Weak capacity in production and marketing of KEFRI products and services</li> <li>Inadequate resource allocation</li> </ul>	<ul> <li>Increasing global demand for forest products and services</li> <li>Green economy incentives e.g. carbon payments, REDD+ initiatives</li> <li>Funding from devolved governments</li> </ul>	<ul> <li>Scarcity of land</li> <li>Forest fires</li> <li>Competition from alternative construction materials e.g. plastics, concrete pylons</li> <li>Global recession</li> </ul>

## Table 3.1: Assessment of KEFRI internal and external operating environment using SWOT and PESTLEG

	Strengths	Weaknesses	Opportunities	Threats
	8		Policy to increase funding to 2% of GDP for R&D	
Social	<ul> <li>Acceptance of forestry by communities</li> <li>Strong partnership with stakeholders</li> <li>KEFRI is recognized as a leading forestry research institute</li> </ul>	<ul> <li>Inadequate capacity to implement partnerships</li> <li>Low corporate image</li> <li>Weak research in extension methodologies</li> <li>Inadequate gender mainstreaming in forestry research</li> </ul>	<ul> <li>Forestry as a provider of employment</li> <li>Advocacy of renewable products</li> </ul>	<ul> <li>Competition with other land uses</li> <li>High poverty levels</li> <li>Poor perception on forestry matters</li> <li>Insecure land tenure</li> </ul>
Technological	<ul> <li>Capacity to generate forestry technologies</li> <li>Long term experience in forestry research</li> <li>Availability of technologies &amp; information</li> <li>Regional leader in forestry science</li> </ul>	<ul> <li>Inadequate capacity for dissemination of research findings</li> <li>Inadequate information on valuation of forest products &amp; services</li> <li>Inadequate streamlining of IPR</li> <li>Weak marketing strategies of products and services</li> <li>Inadequate information and knowledge management</li> <li>Inadequate policy outputs to influence political decisions</li> <li>Lack of land for expansion</li> </ul>	<ul> <li>Linkages with partners</li> <li>Favourable GoK IT policy</li> <li>Increasing demand for forest products and services</li> <li>Existing opportunities in satellite cities (Konza project, Lamu port, Isiolo)</li> </ul>	<ul> <li>Low IT capacity among stakeholders</li> <li>Loss of staff to other institutions</li> <li>Costly emerging technological advances</li> </ul>

	Strengths	Weaknesses	Opportunities	Threats
Legislative	<ul> <li>Active contribution to formulation and legislation of government policies</li> </ul>	Weak policy formulation and implementation framework	<ul> <li>Vision 2030</li> <li>Global support and advocacy</li> <li>Favourable constitutional dispensation, legislation and rules</li> </ul>	<ul> <li>Inadequate forest policies</li> <li>Conflict between regulations and constitution e.g. EMCA</li> <li>Conflicting policies and laws</li> </ul>
Environmental	ISO 14001:2004     EMS     certification	Inadequate environmental data e.g. climate change	<ul> <li>Favourable global trend for environmental conservation</li> <li>Private sector becoming a key player</li> <li>Increasing use of trees/forests for mitigation and adaptation to climate change</li> </ul>	<ul> <li>High cost of compliance with ISO 14001:2004 EMS requirements</li> <li>Weak enforcement of environmental legislation</li> </ul>
Governance	<ul> <li>Strong governance systems in place</li> <li>Strong partnership arrangements</li> </ul>	Weak organizational structure for efficient research outputs and dissemination	<ul> <li>Emerging regional collaboration initiatives</li> <li>Formation of forest management models e.g. Participatory Forest Management- (PFM)</li> </ul>	<ul> <li>Corruption in public sector</li> <li>Weak enforcement of relevant policies and laws</li> </ul>

## Analysis of Customer and Stakeholder Needs and Expectations 3.2

A review of customer and stakeholder behaviour, value needs, causes of resistance and their influence (Table 3.2) was used in aligning the strategic objectives to meet the expectation of KEFRI's clients as summarised in the table below.

# Summary of customer and stakeholder needs and expectations Table 3.2

Customer/ Stakeholder group	Customers	Behaviour KEFRI wants to see from Customer / Stakeholder	Customer/Stakeholder needs (value they are seeking)	Resistance issues	Customer/ Stakeholder influence
	<ul> <li>Kenya Forest Service</li> </ul>	<ul> <li>Appreciate KEFRI</li> </ul>	<ul> <li>Quality technologies,</li> </ul>	<ul> <li>Competition for</li> </ul>	<ul> <li>Uptake/adoption of</li> </ul>
	<ul> <li>Kenya Wildlife Service</li> </ul>	technologies, services	products and services	resources	technologies, products
	<ul> <li>Farmers and</li> </ul>	and products	<ul> <li>Quality and timeliness</li> </ul>	<ul> <li>Resistance to change</li> </ul>	and services
	Communities	<ul> <li>Do business with</li> </ul>	of delivery of	<ul> <li>Poor perception</li> </ul>	<ul> <li>Perception</li> </ul>
	<ul> <li>Institutions of higher</li> </ul>	KEFRI	technologies, products	regarding KEFRI	<ul> <li>Type of technologies,</li> </ul>
	learning	<ul> <li>Give feedback</li> </ul>	and services	mandate	products and services
	<ul> <li>Ministry of</li> </ul>	regarding products	<ul> <li>Continuous</li> </ul>	<ul> <li>Vested interests-</li> </ul>	offered
	Environment, Water	and services	improvement	attached conditionality	<ul> <li>Image and how we</li> </ul>
	and Natural Resources	<ul> <li>Market and promote</li> </ul>	<ul> <li>Innovative and</li> </ul>	<ul> <li>Unwillingness to</li> </ul>	conduct business
Duimour	<ul> <li>Kenya Water Towers</li> </ul>	KEFRI 's technologies,	appropriate	cooperate	<ul> <li>Institutional change</li> </ul>
т ттппат у	Agency	products and services	technologies, products	<ul> <li>Timely</li> </ul>	<ul> <li>Policy, strategies and</li> </ul>
	<ul> <li>Water Resources</li> </ul>	<ul> <li>Commitment to service</li> </ul>	and services	reporting/service	operations
	Management	delivery	<ul> <li>Efficient and effective</li> </ul>	delivery	<ul> <li>Resource allocation</li> </ul>
	Authority (WARMA)	<ul> <li>Integrity</li> </ul>	service delivery	<ul> <li>Resource control and</li> </ul>	<ul> <li>Ownership of</li> </ul>
	Iree Growers	<ul> <li>Innovation</li> </ul>	<ul> <li>Outreach training</li> </ul>	sharing	resources
	Associations	<ul> <li>Team work</li> </ul>	Favourable terms and		<ul> <li>Wider national</li> </ul>
	Regional Development	<ul> <li>Courtesy</li> </ul>	conditions of service		coverage
	Authorities	<ul> <li>Commitment to</li> </ul>	<ul> <li>Clear job descriptions</li> </ul>		<ul> <li>Diverse needs</li> </ul>
	County Governments	implementation of	<ul> <li>Motivation</li> </ul>		<ul> <li>Financial strength</li> </ul>
	<ul> <li>KEFKI EMPIOYEES</li> </ul>	KEFRI technologies			<ul> <li>Performance</li> </ul>

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		Behaviour KEFRI wants to	Customer/Stakeholder		
Customer/ Stakeholder group	Customers	see from Customer / Stationaldor	needs (value they are	Resistance issues	Customer/ Stakeholder influence
		Timely payment for	Clear terms of		Institutional
		goods and services	engagement		governance
			<ul> <li>Complementarity</li> </ul>		<ul> <li>Forest cover</li> </ul>
			<ul> <li>Competitive prices</li> </ul>		<ul> <li>Implementation of</li> </ul>
			<ul> <li>Timely payment for</li> </ul>		<b>KEFRI</b> activities
			goods and services		
	<ul> <li>National Research</li> </ul>	<ul> <li>Increased demand for</li> </ul>	<ul> <li>Internship</li> </ul>	<ul> <li>Low uptake of</li> </ul>	<ul> <li>Visibility of the</li> </ul>
	Institutions	products and services	opportunities/ students	professional advice	Institute
	Other Kesearch     Institutions	<ul> <li>Expressed satisfaction</li> </ul>	attachments		<ul> <li>Marketing KEFRI</li> </ul>
	<ul> <li>Primary and</li> </ul>	with produced	<ul> <li>Up to date and</li> </ul>		products and services
	Secondary Schools	products and services	accurate information		<ul> <li>Increased adoption of</li> </ul>
	Ministry of	offered	<ul> <li>Value for money</li> </ul>		KEFRI technologies
	Agriculture, Livestock	<ul> <li>Active agents of</li> </ul>	<ul> <li>Partnership and</li> </ul>		
	and Fisheries	dissemination	collaboration		
	Ministry of Energy and     Detroloum	<ul> <li>Commitment to</li> </ul>	<ul> <li>Access to management</li> </ul>		
	<ul> <li>Kenva Energy</li> </ul>	implementation of	guidelines		
Secondary	Generation Co. Ltd	management	<ul> <li>Access to high quality</li> </ul>		
	(KENGEN)	prescription	planting material		
	Banking Sector	<ul> <li>Cooperation</li> </ul>	<ul> <li>Appropriately</li> </ul>		
	Lake Victoria Basin		packaged materials		
	Commission (LVDC)     Ilnited Nations		<ul> <li>Outreach training</li> </ul>		
	Agencies				
	National Museums of				
	Kenya				
	<ul> <li>Seed Stockists</li> </ul>				
	<ul> <li>Tea Estates</li> </ul>				
	<ul> <li>Private Companies</li> </ul>				
			00		
			40 7		
Customer/	Customers	Behaviour KEFRI wants to see from Customer /	Customer/Stakeholder needs (value thev are	Resistance issues	Customer/ Stakeholder
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Stakeholder group		Stakeholder	seeking)		influence
	<ul> <li>Development partners</li> </ul>	<ul> <li>Active participation in</li> </ul>	<ul> <li>Good governance,</li> </ul>	<ul> <li>Vested interest</li> </ul>	<ul> <li>Institutional</li> </ul>
	<ul> <li>Regulatory bodies</li> </ul>	<b>KEFRI</b> programmes	transparency and	<ul> <li>Low uptake of</li> </ul>	governance
	<ul> <li>National Treasury</li> </ul>	<ul> <li>Regular feedback</li> </ul>	accountability	professional advice	<ul> <li>Policy, strategies and</li> </ul>
	<ul> <li>Suppliers</li> </ul>	<ul> <li>Timely delivery of</li> </ul>	<ul> <li>Professionalism</li> </ul>		operations
	<ul> <li>Board of Directors</li> </ul>	quality goods and	<ul> <li>Innovative and</li> </ul>		Resource allocation
	(BoD)	services	appropriate		from the exchequer
	CBOs / NGOs	<ul> <li>Timely disbursement</li> </ul>	technologies		Environmental
		of funds	<ul> <li>Efficient and effective</li> </ul>		management
Other Customer /		<ul> <li>Advice on how to</li> </ul>	service delivery		<ul> <li>KEFRI image</li> </ul>
Stakeholder		improve KEFRI	<ul> <li>Value addition in</li> </ul>		<ul> <li>Marketing KEFRI</li> </ul>
		technologies, products	management protocols		products and services
		and services	<ul> <li>Value for money</li> </ul>		<ul> <li>Increased adoption of</li> </ul>
		<ul> <li>Provision of resources</li> </ul>	<ul> <li>Up to date and</li> </ul>		<b>KEFRI</b> technologies
		and equipment	accurate information		Contribute and
		<ul> <li>Partnership and</li> </ul>	<ul> <li>Timely</li> </ul>		develop policies
		collaborations	implementation of		Resource allocation
		<ul> <li>Appreciation</li> </ul>	activities		<ul> <li>Implementation</li> </ul>
					governance

### CHAPTER FOUR

### 4.0 STRATEGY FOR IMPLEMENTATION

#### 4.1 Vision, Mission and Core Values



#### 4.2 Strategic Themes and Strategic Results

Three strategic themes, namely; research for forestry technology and development, operational excellence, and institutional capacity are identified. For each strategic theme, the appropriate strategic results were derived (Table 4.1).

STRATEGIC THEMES	STRATEGIC RESULTS
	• Reference point for forestry technology
Research for Forestry Technology	information
and Development	• Improved forest products and services
	Improved livelihoods
	• Effective delivery of technologies, goods
	and services
Operational Excellence	Improved corporate profile
	Efficient utilization of resources
	Improved strategic partnership
Institutional Capacity	Improved resource base

#### 4.3 Strategic Objectives, Strategy Map and Implementation Matrix

The SWOT and PESTLEG matrix, customer value proposition and strategic themes formed the basis for developing 15 corporate strategic objectives. The strategic objectives for each theme are linked into a cause-effect-relationship (strategic results) and presented in form of a strategy map in four operational perspectives as shown in section 4.3.1. Each strategic objective will be achieved as elaborated in the implementation matrix (section 4.3.2). The framework of performance contract requirements will be aligned to the strategic objectives and initiatives for every financial year to ensure compliance with the Strategic Plan.

4.3.1 KEFRI Corporate Strategy Map



4.3.2 KEFRI Corporate Implementation Matrix

		F	i				Schedu	lle and Bud	Schedule and Budget (Kshs 000,000)	(000)	
Perspective	strategic objectives	r errormance measures	l arget tor 5 years	strategic initiatives	Owner or objective	Y1	Y2	Y3	Y4	Y5	Total Budget
	1. Enhance Vision 2030 delivery	% compliance to MTP II	100%	Implement relevant flagship projects under MTP II	SDD R&D DDs	36.8	34.9	38.2	40.3	43	193.2
		Increase in	Conjectore estimates C	Undertake stakeholder analysis		0.7		0.8		0.9	2.5
	2. Enhance	numuer oj partnership established	o pur mersmps per year	Initiate new partnership with relevant institutions	DDTSS	0.4	0.4	0.4	0.5	0.5	2.2
	unkages œ partnership with stakeholders	Increase in number of joint	6 joint	Initiate joint research and development activities	UAN DOS	0.5	0.6	0.6	0.6	0.7	3
Customers/ Stakeholders		researcn ana development activities	ucnonies per year	Coordinate joint research and development activities	DDs	0.1	1.5	1.5	1.8	1.9	6.9
		Customer		Conduct customer satisfaction survey		0.2	2.3	2.6	2.7	2.9	10.7
	3. Enhance customer satisfaction & retention	satisfaction index	>65%	Implement customer satisfaction survey recommendations	DD CA&QA	0.2	2.3	2.6	2.7	2.9	10.7
		Forest technologies adoption rates	40%	Undertake baseline survey on adoption of forest technologies	SDD R&D DDSPG DDTSS	0.1					0.1

	•	, r	ı	•	(		Schedu	Schedule and Budget (Kshs 000,000)	et (Kshs 00)	(000'0	
Perspective	strategic objectives	r errormance measures	l arget for 5 years	strategic initiatives	Owner or objective	Y1	Y2	Y3	Y4	Y5	Total Budget
				Undertake survey on forest technologies adoption						1.7	1.7
				Review Information Dissemination systems		2.4		3.2		3.7	9.3
				Implement selected recommendations of Information Dissemination systems		53	74	78.3	84.6	87.6	377.6
		Employee		Conduct employee satisfaction survey		0.7	0.8	0.8	0.9	0.9	4.1
		Satisfaction Index	>75%	Implement employee satisfaction survey recommendations	SDD F&A DDHR	1.5	1.5	1.7	1.8	2.9	9.4
	4. Enhance	Forest based		Conduct baseline survey on contribution of tree farming to livelihoods	SDDR&D	6.0					0.9
		dependency index on farm	>2%	Implement recommendations from survey on contribution of tree farming to livelihoods	DDFP&I	1.5	2.9	3.2	3.5	3.7	14.8

		ŗ	ı	•			Schedu	ile and Budg	Schedule and Budget (Kshs 000,000)	(000'00	
Perspective	objectives	r errormance measures	Larget for 5 years	otrategic initiatives	owner or objective	Y1	Y2	Y3	Y4	Y5	Total Budget
				Conduct midterm and terminal evaluation				3.2		3.3	6.5
		%Jncrease in	>10%	Establish a baseline on internal revenue generation potential	EM	2.4					2.4
		revenue	2 products	Increase production of market driven products/services	RDs EM	11.5	12.9	14.6	18.6	19.5	77.1
Financial	5. Increase revenue		Quality Standards	Establish and sustain quality standards of products and services	SDD R&D SDD F&A EM DDCA&QA	1.9	7	2	2.2	2.3	10.5
		Number of products and	1 business	Link products and services to markets	SDD R&D SDD F&A EM RDs	4.7	л С	л	5.5	5.8	26
		services		Obtain patents for innovations and inventions	SDD R&D DDs DDCA&QA	1	1	1.1	1.2	1.3	5.7
			2 innovations	Partner with private sector to commercialize patents	SDD R&D DDs DDCA&QA	1	1	1.1	1.2	1.3	5.7
				27							

		Ę	2				Schedu	Schedule and Budget (Kshs 000,000)	get (Kshs 00	0'000)	
Perspective	objectives	r enormance measures	target tor o years	ouategic initiatives	objective	Y1	Y2	Y3	Υ4	Υ5	Total Budget
		Number of funded proposals	2 funded proposals per year	Develop proposals for funding	SDD R&D DDTSS DDs	2.2	2.8	2.6	3.5	2.9	13.9
		Number of consultancy services	At least 1 consultancy per year	Improve consultancy services	DDTSS	0.4	0.3	0.6	0.3	0.3	1.9
		0/ /otto:		Strengthen planning process	SDD R&D SDD F&A	3.3	3.3	3.5	3.6	3.7	17.5
		ло сотриалсе	100%	Strengthen budgetary process	SDD R&D SDD F&A DDFIN	2.8	3.1	3.1	3.5	3.7	16.2
				Strengthen supply chain management systems	SDD F&A DDSCM	1.9	1.8	1.9	2	2.1	9.7
	1000 confrod 2			Strengthen internal financial control system	SDD F&A DDFIN CIA	4.7	4.9	4.8	5.3	5.6	25.3
	o. Neurce cost	% reduction in	č. L	Enhance pooling of resources	SDD R&D SDD F&A	1	1	1.1	1.2	1.3	5.7
		cost	5% per year	Increase the use of ICT in all operations	SDD R&D SDD F&A DDTSS	1.9	2	2	2.2	2.3	10.5
				Outsourcing non core activities	SDD F&A DDADM	18.8	19.3	18.7	20.5	21.6	98.9
				Install and maintain fleet management system	SDD F&A DDADM	0.9	1	1.2	1.3	1.3	5.7

		_			_		Schedu	le and Budg	Schedule and Budget (Kshs 000,000)	0,000)	
Perspective	Strategic objectives	Performance measures	Target for 5 years	Strategic initiatives	Owner of objective	Х	Y2	Y3	Y4	Y5	Total Budget
		Functional knowledge	/0001	Develop a Knowledge Management Strategy	SDD R&D DDTSS	1.9					1.9
	7. Enhance	management system	0/.001	Implement Knowledge Management Strategy	SDD R&D DDTSS	11	11.6	12.8	13.5	14.3	63.2
	knowledge management and dissemination systems	% increase in staff and		Conduct baseline survey on utilization of knowledge management systems	SDD R&D DDTSS	1.5					1.5
Internal Processes		stakenotaers utilizing the systems	At teast 70%	Conduct midterm and terminal evaluation on krowledge management	SDD R&D DDTSS			2.3		2.3	4.6
				Conduct baseline survey on communication avenues	DDCA&QA	1.7					1.7
	8.Improve corporate communication	% increase in corporate communication effectiveness	At least 20%	Develop a communication strategy	DDCA&QA	2.2					2.2
				Implement communication strategy	DDCA&QA	3.7	3.6	3.7	0.4	3.9	15.2
				29							

							Schedu	ile and Bud	Schedule and Budget (Kshs 000,000)	(000)	
Perspective	objectives	r errormance measures	Larget for 5 years	strategic initiatives	Owner or objective	Y1	Y2	Y3	Y4	Y5	Total Budget
				Improve corporate communication policy	DDCA&QA	1.5					1.5
				Conduct midterm and terminal evaluation on communication avenues	DDCA&QA			2.3		2.3	4.6
				Conduct baseline survey on KEFRI publications	DDTSS	0.7					0.7
		Publication	Revised publication	Revise KEFRI publication policy	SDD R&D DDTSS	0.7					0.7
		found	policy	Develop appropriate information products for various stakeholders	SDD R&D DDTSS RDs	11.8	12.4	13.6	14.4	15.3	67.4
		Staff and public	%02 20%	Avail information electronically and online	SDD F&A DDTSS	0.1	0.1	0.1	0.1	0.1	0.4
		awareness		Publish KEFRI Newsletter quarterly	DDCA&QA	0.7	0.8	0.8	1	0.0	4.3
				30							

							Schedu	Schedule and Budget (Kshs 000,000)	tet (Kshs 000	(000'0	
Perspective	Strategic objectives	<b>Fertormance</b> <b>measures</b>	l arget tor 5 years	Strategic initiatives	Owner of objective	Y1	Y2	Y3	Y4	Y5	Total Budget
				Conduct baseline survey on service delivery	DDCA&QA	1.9					1.9
		% reduction in cycle time	100%	Implement selected recommendations of baseline survey	DDCA&QA	0.7	2.2	2.8	3.1	3.2	12.1
				Automate relevant operations	DDCA&QA DDTSS	2.2	2.6	2.9	3.2	3.5	14.4
				Conduct baseline survey on operational process efficiency	DDCA&QA	1.1			L		1.1
	9. Improve operational efficiency	%, overation		Implement selected recommendations of survey on operational process efficiency	DDCA&QA	0.8	2.2	2.8	3.1	3.2	12.2
		effectiveness	60%	Develop and implement ISO 9001:2008 Quality Management Systems (QMS)	DDCA&QA	5.9	5.6	6.2	~	12.2	36.9
				Improve management systems based on service charter	DDCA&QA	1.5	1.7	1.9	2.2	2.3	9.5
		% compliance to ISO	100%	Implement ISO 14001:2004	DDCA&QA	3.7	3.8	4.3	4.7	4.8	21.2
				31							

		F					Schedu	Schedule and Budget (Kshs 000,000)	get (Kshs 00	(000'0(	
Perspective	objectives	r er torman ce measures	t arget ror 5 years	otrategic initiatives	Owner or objective	ΙĂ	Y2	Y3	Y4	Υ5	Total Budget
		standard		EMS standard							
	10.Enhance	Number of research thematic areas	4 thematic research areas	Mainstream research themes at Eco –regions	SDD R&D DDs RDs	55.2	69.8	74.5	94.2	86	379.7
	multi-sectoral and Public- Private Sector research	% increase in multi-sectoral and public- private research proposals	10% annually	Strengthen multi-sectoral and Public- Private Sector research proposals	SDD R&D DDs RDs	88.3	93.1	114.6	120.4	129	545.4
		Number of technologies	10 technologies	Identify and develop forest technologies	SDD R&D DDs RDs	22.4	23.6	25.9	27.45	25.3	111.55
		Number of innovations	1 innovation in five years	Innovate forestry systems and products	SDD R&D DDs RDs	11.7	12.3	13.5	14.35	11.4	50.15
	11.Increase forest	Patent KEFRI innovations	2 patents in five years	Review and operationalize IPR policy	<i>DD СА&amp;</i> QА	2.0	0.8	0.8	0.9	0.9	9
	technologies and innovations	Number of extension methods	1 method	Develop appropriate extension methods	SDD R&D DDs	9.4	13.5	14.4	15.7	16.6	69.6
		Number of ICT systems	1 system	Develop ICT decision support systems for tree growers	SDD R&D DDs	0.4	0.4	0.4	0.5	0.5	2.2
	12.1mprove external resource mobilization	Increase in external resource base	5% amually	Establish baseline on external resource base	SDD R&D DDTSS	1.9					1.9
				32							

	Charlost	n	5 5 T		,		Schedı	ule and Budg	Schedule and Budget (Kshs 000,000)	(000'0	
Perspective	objectives	r errorinance measures	I auget 101 9 years	buategre initiatives	objective	Y1	Y2	Y3	Y4	Y5	Total Budget
				Evaluate progress	SDD R&D DDTSS		2.5	2.8	3.1	3.2	11.6
		% external resource	100%	Review and improve the current resource mobilization strategy	SDD R&D DDTSS	1.1					1.1
		movuzation strategy	implementation	Implement resource mobilization strategy	SDD R&D DDTSS	0.4	3.1	3.2	3.7	3.8	14.1
		Staff complement	1200	Ensure compensation to employees (salaries, allowances, insurances, pension)	SDD F&A DDHR	708.6	746.4	791.4	840.9	881.6	3,968.82
	13.Improve staff skills and			Recruit additional relevant staff	SDD F&A DDHR	11	8.4	М	6.2	5.5	38.1
Organizational Capacity	capacity			Review HR management Plan and Policies	SDD F&A	1.9					1.9
		Performance indax	100%	Implement HR Policies and Plan	DDHR	5.9	15.5	17	17.9	19.1	75.4
		mex		Conduct mid- term and terminal evaluation	DDCA&QA			1.7		2	3.7
	14.Improve infrastructure and facilities	ICT effectiveness	>70%	Develop and implement ICT Plan	DDTSS	15.1	15.9	17.4	18.4	19.6	86.4
				33							

		Douformence	Towert for E	Charlord	,		Schedu	ule and Bud	Schedule and Budget (Kshs 000,000)	0,000)	
Perspective 0	objectives		t arget tor 5 years	ouategic initiatives	objective	Y1	Y2	Y3	Y4	Y5	Total Budget
		Increase in infrastructure and facilities	7 centres and sub –centres	Construct, renovate, and equip centres	SDD R&D SDD F&A DDADM RDs	135.4	138.6	148.2	158.3	165.2	745.67
				Develop policy for acquisition of land for research		2.6					2.6
1 f	15.Secure land for forestry research	Increase in number of hectares	>25%	Determine current acreage of research land	SDD R&D SDD F&A DDADM RDs	1.5					1.5
				Increase land acreage for research		2.9	3.1	3.4	3.6	3.8	16.9
	TOTAL					1,291	1,377	1,493	1,590	1,681	7,431.30

# **CHAPTER FIVE**

### 5.0 RESEARCH AND MANAGEMENT CAPACITY

#### 5.1 Human Resource Requirements

In 2012/2013, KEFRI had a total staff establishment of 965 comprising 86 research scientists, 109 technical staff, 333 professional support staff and 437 auxiliary staff. Based on a staff strength analysis, the optimum staffing level required to deliver this Strategic Plan is 1200 giving a variance of 235 staffing gap. The variance in the staffing levels and skills required will be bridged through: recruitment to bring new talent; use of internships and students on attachment in order to empower the youths; contracted staff for some projects or short term assignments; systematic training to equip existing staff with relevant skills, knowledge and attitudes.

A training needs assessment conducted in 2010/2011 showed that relevant skills, knowledge and attitudes of existing staff could be improved further for delivering this Strategic Plan. Priority training areas will include; team building, ISO 14001:2004 EMS and ISO 9001:2008 QMS implementation, data management, nursery management, time management, supervisory skills, strategic leadership and change management, performance improvement, and staff performance management. Another TNA will be carried out in 2013/14 financial year and recommendations implemented appropriately.

#### 5.2 Financial Requirements

### 5.2.1 Projected Funding Requirements

KEFRI's total funding requirements for the Plan period 2013 – 2018 is estimated at Kshs. 7,431 million as shown in Table 5.1.

	Budget per Year (Kshs. '000 000)					
Source	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	TOTAL
GoK Subvention	1,170.6	1,240.4	1,336.7	1,418.5	1,494.9	6,661.1
Support from development partners	75.5	85.9	95.8	105.6	115.7	478.5
Internal revenue	45.2	50.3	60.1	65.6	70.5	291.7
TOTAL	1,291.3	1,376.6	1,492.6	1,589.7	1,681.1	7,431.3

Table 5.1:KEFRI budget forecast for the period 2013/14 - 2017/18

### 5.2.2 Strategies for Resource Mobilization

KEFRI's main sources of funding are GoK subvention, support from development partners and internal revenue generation. These are likely to continue being the main sources of funds for the organization. KEFRI shall use the various strategies to mobilize additional resources as detailed below.

Kenya Forestry Research Institute Strategic Plan 2013-2018

#### 5.2.2.1 Government of Kenya Funding

It is notable that the government of Kenya has been increasing funding to KEFRI annually to meet increasing demand for research, development, and administrative activities. To meet this demand and considering the central role of research in development of forestry and allied natural resources, KEFRI will seek enhanced support from GoK.

#### 5.2.2.2 Internal Funding

Internal funding will be mainly through enhanced enterprise activities including: sale of tree seeds and processed tree and non-wood forest products; training; hospitality services; and consultancies.

#### 5.2.2.3 Support from Development Partners

KEFRI will strengthen fundraising from development partners by implementing a framework that integrates resource mobilization options at short; medium; and long term.

To ensure sustainability and proper matching of resources to strategic activities, KEFRI will review its relations to development partners and explore expansion of the pool of partners. KEFRI will also continuously identify research and development priorities and financial gaps and link them to existing funding opportunities including;

- i. *Targeted fundraising* The Institute will proactively engage and tap resources from Development Partners and Corporate bodies. The approach will be to collate overarching ideas that enhance strategic targeting of major investors.
- ii. *Competitive grants* The Institute will respond to calls for proposals from donors, foundations and other partners and utilize such funds for investment in research and development.
- iii. Campaigns KEFRI will identify critical partners, for instance, consulting firms for strategic campaigns to mobilize resources by developing innovative business and investment plans. KEFRI will therefore launch major campaigns targeting bilateral donors in Europe, North America, Asia, and Africa and within a wide range of philanthropies.
- iv. *Traditional fundraising partnerships* KEFRI will consolidate and strengthen existing fundraising partnerships from traditional supporters.
- v. **Other fundraising avenues** The Institute will work closely with main actors in natural resource conservation, for advisory or contracted fundraising capacity. KEFRI will also engage local corporations and general citizenry for support through Social Responsibility Programmes, promotions, and fundraising activities.

#### 5.2.2.4 Public Private Partnerships

KEFRI will adopt Public Private Partnerships (PPPs) that entail: linking forestry research to industry; value chain analysis for forest products; and synergy for enhanced cooperation. Business models will be developed showing cost-benefit analysis for investments in KEFRI products and services. Various private companies, groups and individual entrepreneurs will be targeted through continued provision of necessary forestry information and technologies relevant for production of a diverse range of products, processes and services. Institutional and contractual arrangements that benefit all engaged parties, including smallholders and communities, i.e. "win-win" arrangements, will be explored and enhanced. These arrangements will continuously be assessed to identify possible funding opportunities for the Institute.

#### 5.3 Physical Facilities

During the Strategic Plan period, KEFRI will expand research implementation and dissemination of technologies by developing new physical facilities in Lamu, Taita Taveta, Meru, Laikipia, Turkana and Migori counties.



Research facility for the Coastal Eco-region Forestry Research Programme - Gede

# **CHAPTER SIX**

#### 6.0 MONITORING AND EVALUATION STRATEGY

#### 6.1 Monitoring and Evaluation Process

Monitoring and Evaluation (M&E) is an important management tool that will be used by KEFRI to ensure that implementation of this Strategic Plan is on course. Monitoring and evaluation will be used to measure accomplishments and detect any deviation, and where there is need for adjustment, appropriate and timely action will be taken. The M&E process will take into account emergent issues, and changes in the environment that affect this Plan. The corporate implementation matrix will help track and monitor progress in implementation of the Plan. The Strategic Plan will be subjected to Midterm and End of Plan reviews to gauge the extent of achievement of intended results. The M&E process will be undertaken at the Board of Directors, management and functional levels.

#### 6.1.1 Monitoring and Evaluation at Board Level

The Board of Directors will establish monitoring, evaluation, and control systems at all levels to ensure that performance is reviewed and analysed on a periodic basis. Recommendations from quarterly meetings by Executive Committee will form agenda for Board of Director's quarterly meetings. During these meetings, the Board will receive and review reports by the Executive Committee indicating overall progress. The nature and scope of the reporting will include:

- (a) Progress made against the Strategic Plan;
- (b) Causes of deviation from the Plan, if any;
- (c) Challenges that may adversely affect implementation of the Plan; and
- (d) Suggested solutions to these challenges.

#### 6.1.2 Monitoring and Evaluation at Management Level

Monitoring and Evaluation at management level will be carried out by the Executive Committee. The Committee will be meeting quarterly and report on progress made in the implementation of the Strategic Plan. The Executive Committee shall have two subcommittees: one consisting of Deputy Directors Research and Development chaired by the Senior Deputy Director Research and Development; and the other consisting of Deputy Directors under F&A chaired by SDDF&A. The two Sub-committees will be meeting quarterly to review progress on implementation of the Strategic Plan under their respective Departments. Recommendations by the two Sub-committees will be submitted to the Executive Committee chaired by the Director. Results from routine monitoring will be used to inform decision-making, including taking corrective action where deviations in implementation have been noted and inform the Board appropriately.

#### 6.1.3 Monitoring and Evaluation at Functional Level

Monitoring and Evaluation at functional level will involve routine data collection and analysis on progress of the Strategic Plan implementation. The thematic offices, divisions and Eco-regions will monitor programmes and projects administered within their respective jurisdiction and submit quarterly M&E reports to the Sub-Committees of the Executive Committee for analysis. These reports will be reviewed regularly against the set targets to measure progress.

#### 6.2 Monitoring and Evaluation Tools

In carrying out M&E, the following tools will be adopted:

- a) Annual implementation matrix review
- b) Annual performance contracts and workplans
- c) Annual budget and quarterly expenditure review
- d) Annual and quarterly research and development reports
- e) Consultative and Executive Committee meetings
- f) Annual staff appraisal

#### 6.3 Indicators for Measuring Performance

Measurement of performance will be done on the basis of the following four (4) indicators:

- a) Level of customer satisfaction index;
- b) Level of increase in revenue and cost reduction;
- c) Compliance to internal processes; and
- d) Institutional capacity development.

### CHAPTER SEVEN

### 7.0 RISK MANAGEMENT STRATEGY

The Institute shall employ Risk Management Strategy (RMS) in mitigating risks associated with implementation of the strategic objectives as in Table 7.1.

Risk	Risk level (National, Institute)	Risk rating (high, medium, low)	Control measure	Mitigating action	Responsibility	Time frame
Loss of professional staff	Institute	Medium	Staff incentives	<ul> <li>Improve terms and conditions of service</li> <li>Recruit and train</li> </ul>	Director DD HR	Annual
Inadequate resources	Institute	Medium	• Increased resource allocation	<ul> <li>Review of budget allocation</li> <li>Undertake resource mobilization</li> </ul>	SDD F&A SDD R&D DDs	Bi-annual
Economic instability	National	High	<ul> <li>Appropriate economic policies</li> <li>Fiscal discipline</li> </ul>	<ul> <li>Fiscal and monetary reforms</li> </ul>	BoD Director	Annual
Bureaucratic inertia	National	High	<ul> <li>Public Service reforms</li> <li>Change management</li> </ul>	• Transformative leadership	Director	Plan period
Technological change	Institute	Medium	<ul> <li>Change management</li> </ul>	<ul><li>Policy review</li><li>Training</li><li>Procurement</li></ul>	SDD F&A SDD R&D	Continuous
Political interference	National	High	Dispute     resolution     mechanism	<ul> <li>Build confidence with public and political class</li> </ul>	BoD Director	Continuous
KEFRI organisational culture	Institute	Medium	<ul><li>Transformative leadership</li><li>Change</li></ul>	<ul> <li>Corporate cohesion plans</li> <li>Team building</li> </ul>	BoD Director	Continuous

management

#### Table 7.1: KEFRI Risk Management Strategy

sessions

culture

# **CHAPTER EIGHT**

#### 8.0 COORDINATION AND MANAGEMENT OF THE STRATEGIC PLAN

#### 8.1 KEFRI Organization Structure

KEFRI has revised its organization structure for effective delegation, management processes and information flow (Figure 8.1). The organization structure takes into account lessons learnt from Strategic Plan 2008-2012 and core mandate of the Institute

The Board of Directors (BoDs) is the highest management organ of the Institute and is responsible for overall development of programmes, research and management policies.

The Director is responsible for overall management and operation of the Institute, and is assisted by two Senior Deputy Directors; one responsible for Research and Development (R&D) Department and the other for Finance and Administration (F&A) Department. The Director and the two Senior Deputy Directors form the Directorate which implements policies developed by the BoDs. The SDDR&D oversees, coordinates and monitors four research thematic areas and one technical support service (Annex I). The SDDF&A coordinates and monitors matters of finance, human resource management, administration and Supply Chain Management in the Institute. The research and development programmes are actualized, implemented and monitored by the Deputy Directors and Regional Directors through the various functional and support offices at the Headquarters and Eco-regions.

The Corporate Affairs and Quality Assurance, Enterprise Services and Internal Audit Offices operate under the Director's Office.

The Deputy Directors in the Research and Development Department are responsible for thematic research formulation, budgeting, coordination, monitoring and evaluation in their respective thematic research and development areas. The Deputy Director Technical Support Services (DDTSS) supports thematic research in areas of partnership and resource mobilization, knowledge management, laboratory coordination, biometrics and Geographical Information System (GIS) as well as Information Communication Technology (ICT).

The Regional Directors are responsible for implementation of thematic research and administrative activities in their respective eco-regions (Annex II). Regional Directors are assisted by Deputy Regional Directors in coordination and implementation of research and development as well as administrative activities of the eco-regions.

### 8.2 Coordination and Management of Research and Development

The Director will provide overall co-ordination of research and development in the institute. The Executive Committee comprising the Director, two Senior Deputy Directors, and Deputy Directors will meet regularly to review research and development activities including: proposal development; project implementation; and monitoring

Figure 8.1: KEFRI Organogram



and evaluation; and to identify constraints and make appropriate decisions and recommendations to the BoDs. A Consultative Committee comprising members of the Executive Committee and Regional Directors will be the planning and coordinating organ of the Institute. The Consultative Committee will meet annually at the beginning of every financial year to review performance of the previous year, set targets and allocate budget for the year.

### 8.3 Centre Research Advisory Committees

Centre Research Advisory Committees (CRACs) will be based at Eco-regional Centres to identify research problems, reviewing existing projects and proposals in consultation with stakeholders, and make recommendations to the Consultative Committee (CC) for consideration.

### 8.4 National Tree Seed Advisory Committee

A National Tree Seed Advisory Committee will identify tree seed problems and advice on management of tree seed sources, collection, handling, storage, distribution and marketing. The Committee will also advise on implementation of tree seed certification based on OECD Forest Seed and Plant Scheme. The committee shall meet at least twice in a year.



Tree seed germination test done in compliance with International standards

High quality tree seed packaged for distribution to various stakeholders

## **ANNEXES**

### ANNEX I: KEFRI RESEARCH AND DEVELOPMENT THEMES AND SUB-THEMES

No.	Themes	Sub-Themes		
1	Forest Products Development	<ul> <li>Forests harvesting, logging and handling</li> <li>Forest products processing and utilization</li> <li>Forest products development, incubation and linkage to industry/SMEs</li> <li>Bio-prospecting</li> </ul>		
2	Biodiversity and Environment Management	<ul> <li>Forest rehabilitation and restoration</li> <li>Management of invasive tree species</li> <li>Sustainable management of natural forests and woodlands</li> <li>Wetlands and riparian ecosystem management</li> <li>Forest hydrology</li> <li>Climate change research</li> <li>Soil and water management</li> </ul>		
3	Socio-Economics, Policy and Governance	<ul> <li>Forest and land tenure</li> <li>Gender and forestry</li> <li>Forest conflict resolution</li> <li>Participatory Forest Management (PFM)</li> <li>Research in forest extension</li> <li>Policy and governance</li> <li>Forest valuation and Payment for Ecosystem Services (PES)</li> <li>Livelihood improvement</li> <li>Marketing and trade in forest products</li> </ul>		
4	Forest Productivity and Improvement	<ul> <li>Forest resource assessment</li> <li>Biotechnology</li> <li>Tree domestication and livelihoods</li> <li>Germplasm production and conservation</li> <li>Tree improvement and silviculture</li> <li>Diversification of tree species</li> <li>Forest fire management</li> <li>Forest health</li> </ul>		
5	Technical Support Services	<ul> <li>Partnership and networks</li> <li>Knowledge management and dissemination</li> <li>Laboratory coordination</li> <li>Biometrics and Geographical information System (GIS)</li> <li>Resource mobilization for research</li> <li>Outreach training</li> </ul>		



#### ANNEX III: CONTACTS FOR KEFRI HEADQUARTERS, ECO-REGION FORESTRY RESEARCH PROGRAMMES, SUB-CENTRES AND FIELD CENTRES

Kenya Forestry Research Institute Head Office: Muguga, off Nairobi -Nakuru Highway P. O. Box 20412-00200 Nairobi Tel: +254 724 259 781/2, +254 722 157 414, +254 734 251 888 E-mail: director@kefri.org

Central Highlands Eco-Region Research Programme - Muguga P. O. Box 20412-00200 Nairobi Tel: +254 20 211 6399 E-mail: cdmuguga@kefri.org

Nyeri Sub-Centre P. O. Box 12069, Nyeri Tel: +254 20 238 6354 E-mail: kefrinyeri@gmail.com

Forest Products Research Centre - Karura P. O. Box 64636-00620, Mobil Plaza, Nairobi Tel: +254 20 201 1629, +254 733 764 726 E-mail: cdkarura@kefri.org

Drylands Eco-Region Forestry Research Programme - Kitui P. O. Box 892-90200, Kitui Tel: +254 20 232 3090/357 3091, +254 718 232 226 +254 731 217 270 E-mail: cdkitui@kefri.org

Kibwezi Sub-Centre P. O. Box 87-90137 Kibwezi Tel: +254 572 508 150 Email: kefrikibwezi@yahoo.com

Garissa Sub-Centre P. O. Box 1483 70100, Garissa Tel: +254 774 193 295 Email: oickefrigsa@yahoo.com

Bura Field Centre P. O. Box 102, Bura Tana Rift Valley Eco-Region Forestry Research Programme - Londiani P. O. Box 382, Londiani Tel: +254 20 217 2567 E-mail: cdlondiani@kefri.org

Baringo Sub-Centre P. O. Box 57- 30403, Marigat Email.kefribaringo@yahoo.com

Turbo Sub-Centre P. O. Box 5, Turbo Tel: +254 20 2579856 +254 722 67 37 59 Email: kefriturbo@gmail.com

Turkana Sub-Centre P. O. Box 468, Lodwar

Lake Victoria Basin Eco-Region Forestry Research Programme - Maseno P. O. Box 25199-40108, Otong'lo - Kisumu Tel: +254 573 51164, +254 713 687 975 Fax: +254 5735 1592 E-mail: cdmaseno@kefri.org

Kakamega Sub-Centre P. O. Box 1901, Kakamega Tel: +254 57 250 0138

Kuja River Field Centre P. O. Box 223, Sare Awendo E-mail: kefrikujariver@gmail.com

Ramogi Field Centre P. O. Box 184, Usenge

Coastal Eco-Region Forestry Research Programme - Gede P. O. Box 1078, 80200, Malindi Tel: +254 20 238 6358, +254 707 672 901, +254 738 206 672 E-mail: cdgede@kefri.org

Lamu Sub-Centre P. O. Box 71-80502, Mokowe

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