



KEFRI *Newsletter*

Issue No. 47

October to December, 2023

A Publication of Kenya Forestry Research Institute



Chairman of KEFRI Board of Directors Gen. (Rtd) Samson Mwathethe launching the 7th Strategic Plan 2022 - 2027 and Enterprise Resource Planning System (ERP)



Secretary for Administration, State Department of Forestry Mr. Evans Mutari planting a tree to mark the launch of Strategic Plan

Table of Contents

KEFRI launches the 7 th Strategic Plan and ERP	2
Parliamentary Environment Committee visit KEFRI	4
Tree seed production	5
National tree growing day, Kiu	6
Aerial seeding technology	6
Tree planting countrywide	7
Rift Valley Eco-region Open Day in Turbo	8
On the cutting edge of scientific exploration	9
Genji Shin, volunteership comes to end	9
5 th International Congress on Panted Forests	10
Japan fetes KEFRI on 4 decade of collaboration	11
Bamboo for improving ecosystem and livelihood	12
County Government support 15 billion Tree Programme	13
United Nations COP 28 in Dubai, The UAE	13
University of Notre Dame pact with KEFRI	13
Partnership to Manage Prosopis	14
Turkana Cultural Festival	14
Lamu Cultural Festival, 2023	15
KEFRI and Lukenya sign MoU	15
Mainstreaming road safety	15

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KEFRI Newsletter is a Quarterly Magazine produced by Corporate Affairs and Quality Assurance

KEFRI launches the 7th Strategic Plan and ERP System

The Cabinet Secretary for Environment, Climate Change and Forestry Hon. Soipan Tuya – represented by KEFRI Board Chairman, Gen. (Rtd) Samson Mwathethe, launched the Institute's 7th Strategic Plan at the Headquarters.

In her Speech the CS said, “the 5-year Strategic Plan that will guide forestry research and development in Kenya for five years [2022 - 2027] has considered opinions from both internal and external stakeholders as well as the Bottom Up Economic and Transformation Approach (BETA) among other national and global agenda.”

The 7th Strategic Plan will facilitate the country in providing solutions to challenges facing forestry and allied sectors even beyond the region.

“Amongst the key targets in the Plan, the Institute aspires to produce 100 metric tons of quality tree seed each year, share research findings and other information widely, develop infrastructure, and extend partnerships within and beyond the country,” Gen. Mwathethe said.

During the implementation of this Plan, the Institute will continue to develop technologies and innovations, establish more research centres, strengthen the 18 seed centres to generate adequate tree seeds to meet national demand.

Further, the Plan that is based on thematic areas aims to build capacity and empower various players in forestry and related environmental sectors, including opinion leaders, academicians, tree growers, traders and nursery owners.

“Under the Forest Products and Entrepreneurship Development (FPED) theme, KEFRI has proposed and prioritized building capacity of stakeholders in forest based entrepreneurship especially Medium and Small-Scale Enterprises including youth and women groups. Allow me to laud the Institute’s efforts in working with youth in Mathare, Kibera and other informal settlements countrywide to establish viable businesses,” said the CS.

In her speech, the Acting Director Dr. Jane Njuguna stated that the 7th KEFRI Strategic Plan, has been developed when the world is faced with the tripple planetary crisis of climate change- characterised by biodiversity loss, pollution and environmental degradation.

“KEFRI is implementing the 7th Strategic Plan during this period where countries globally have committed to national and global pledges on climate change and other critical environmental needs,” said Dr. Jane Njuguna.

In developing this plan, we evaluated the 6th Strategic Plan which was implemented under reduced budget cuts and the dark period of COVID 19 pandemic which literally brought the world to a standstill. Fortunately, despite the pandemic, KEFRI gained several achievements.

‘We commend the scientific fraternity, under the five technical thematic areas, for generating over 250 technologies in the last five years.’

We also built capacity of stakeholders, and disseminated research findings. Additionally, increased production and distribution of quality tree germplasm including tree seeds, and seedlings for the attainment of 30% tree cover. Other achievements included successful biological control of forest pests, management of *Prosopis juliflora* (mathenge), refinement of new forest products and contributions to the development policies in the forest sector.

We also improved tree breeding technologies capacity for indigenous tree species which have proved excellent in growth.

The Institute pioneered aerial seeding using light aircrafts and drones to restore degraded forests and other landscapes in Kenya. The first trial was conducted in Maasai Mau Forest block in Narok County. There was improved research infrastructure facilities, staff skills development and digitization of data and information through the Enterprise Resource Planning.

“We cherish the continued cordial relations between the Government of Kenya through the Ministry from which we have consistently received support to implement our core mandate. We are truly grateful for that support especially for the strategic support to expand the tree seed centres from one to eighteen,” said Dr. Njuguna.



Kinale Traditional Dancers entertaining guests during the launch of the 7th Strategic Plan and ERP system

Its is worth to note that the Ministry ranks KEFRI as the key technical agency especially in delivering the country’s plan to grow 15 billion trees by 2032, through provision of high quality tree seeds.

KEFRI with the leadership from the Ministry. strengthened relations with collaborators, development partners and other key strategic stakeholders, who continuously supported the Institute to actualize its vision. Among our partners include: KFS, NEMA, NETFUND, NECC, NET, NACOSTI, KWS, other MDAs, JICA, CIFOR-ICRAF, AFF, FAO, UNDP, World Bank, Universities and other corporates in forestry and environment.

In line with the government’s goal of digital superhighway, KEFRI has fully on-boarded to the e-citizen platform. The Institute is in the process of automating its activities through the Enterprise Resource Planning system that will ensure efficiency and timeliness in service delivery.

Parliamentary Committee on Environment, Forestry and Mining visits KEFRI



Hon. Charles Kamuren and his delegation visiting insect reference laboratory where scientists develop technologies on forest health

KEFRI has appealed for KES 1.3 billion, additional funding to its annual budget, to enable it operate effectively and contribute to the national agenda including the 15 Billion Tree Growing and Landscape Restoration Strategy.

KEFRI Board Chairman Gen. (Rtd) Samson Mwathethe stated while presenting institutional challenges and opportunities during a meeting with the Parliamentary Committee on Environment, Forestry and Mining, held at KEFRI Headquarters, on 28th November 2023.

The Vice Chairman of the Committee, Hon. Charles Kamuren who led the delegation in discussions with the KEFRI Board and senior managers on matters to fast track tree planting and forest conservation in the country.

"Our main objective is to understand the role of KEFRI among other institutions in the forestry and environmental programmes so that we make informed decisions prior to presenting these findings in the national assembly," said Hon. Kamuren.

The legislators sought to understand KEFRI's projects, budgets, research products and key activities, that will alleviate poverty in addition to policies on managing invasive species such as *Prosopis juliflora* aka Mathenge, Bamboo and Aloe vera.

"In the 15 billion Tree Growing and Landscape Restoration Strategy by 2032, KEFRI is tasked with production and distribution of 100 MT of quality tree seed to public and private sectors," said Dr. Jane Njuguna, the Ag. Director.

KEFRI has dispatched 54 metric ton of tree seed from January to October 2023, which will raise 810 million tree seedlings. Upon maturity these trees will contribute a monetary value of KES. 4.1 trillion to the national economy in ten years.

Dr. Njuguna estimates the 15 billion trees will contribute approximately KES. 78 trillion in the economy at maturity at a conservative price of KES. 5,000 per tree in addition to providing others goods and services.

The Director further informed the Committee that KEFRI scientists have developed significant technologies and innovations to boost environment conservation and improve livelihoods. However, dwindling funds from the exchequer which the institute has been experiencing each year, is hindering not only research and development, but also seed production, restoration of vulnerable landscapes and transfer of technologies to the communities more so in Arid and Semi Arid Lands (ASALs).

According to Dr. Njuguna, during the Financial Year 2022/2023, and in line with its mandate and functions, KEFRI implemented several projects supported by the National Government, donors and development partners across the country as part of efforts to curb the country’s exposure to climate change.

“These are; aerial seeding of degraded Maasai Mau Forest Complex, restoration of degraded forests, riverines and degraded landscapes including protection of 1500 ha trial site in Tiva, Kitui County, establishment of forest plantation and commercial tree woodlots on-farm, supply of quality tree seed to over 66 Prison Services, 48,000 Public schools, 6 Regional Development Authorities, CFAs and Faith Based Institutions to support the ambitious national 30% tree cover programme” Dr. Njuguna said.

Tree Seed Production

The Institute with support from the national government is establishing 18 fully fledged seed production facilities across the country. These centres are within five eco-regions; Gede, Lamu and Taita Taveta to cater for Coastal region; Kitui, Kibwezi, Garissa and Bura for Eastern region; Muguga, Nyeri and Rumuruti to cater for Central Highland that cover Mt. Kenya and neighbouring counties. Londiani, Marigat, Turbo and Lodwar for Rift Valley; Maseno, Migori, Kakamega and Ramogi for Lake Victoria Basin Ecoregion. These centres will produce both indigenous and exotics species for the nation to produce seedlings for the 30% tree and forest cover target.



Members of the Parliamentary Committee on Environment, Forestry, and Mining visiting seed drying facility at Muguga Centre

KEFRI is mandated to coordinate and oversee the production of quality tree seed and seedlings for rehabilitation and sustainable management of degraded forests and landscapes.

“Unfortunately, seed production is being limited by diminishing and unsecured seed sources, aging workforce, communities limiting access to seed sources on farms and changes in seed phenology as a result of climate change,” said the Director.



Parliamentary Environment Committee members at Muguga seed facility construction site

The Director requested the committee to facilitate KEFRI acquire research land from the county Governments, Kenya Forest Service and Ministry of Lands for establishment of seed stands and orchards. The Director also sought funding to complete the remaining 7 seed storage and processing facilities which will play a significant role of enabling the country increase forest cover to 30 per cent. Additionally she requested for support in terms of transport to lower seed production costs, and reachout to stakeholders - Community Forest Association (CFAs), private tree growers and tree nursery entrepreneurs.

KEFRI in collaboration with Kenya Forest Service is supporting vegetative propagation of fruit trees and agroforestry species across public and private sectors as well as community nurseries across the country.



H.E President Dr. Ruto, operating a drone dispersing tree seed during the National Tree Growing Day at Kiu Wetland in Makueni County

National Tree Growing Day

Climate change is a fact and it is our collective responsibility to combat it. His Excellency President Dr. William Ruto, said when he led the nation in marking The National Tree Growing Day at sprawling Kiu Wetland in Makindu, Makueni County. During the event, the President ordered Kiu wetland to be gazetted to safeguard its protection.

The President gazetted 13th November 2023, a public holiday to plant 100M trees in the country. This is a significant step towards the Government's ambitious 15billion National Tree Growing and Landscapes Restoration Strategy to combat the escalating climate crisis within the next decade.

The nationwide tree-planting campaign, spearheaded by the Ministry of Environment, Climate Change and Forestry aims to contribute actively to environmental conservation. This will eventually address challenges of climate change, historical floods, drought, greenhouse emissions, and deforestation.

KEFRI Ag. Director Dr. Jane Njuguna joined the CS Ministry of Environment, Climate Change and Forestry Hon. Soipan Tuya, Makueni Governor H.E Mutula Kilonzo Jnr and Forestry Department PS Mr. Gitonga Mugambi, Chief Conservator of Forests Mr. Alex Lemarkoko, and Secretary for State Functions Mr. Michael Gitonga in planting 151,500 seedlings at the site, on the eve of the event.

Aerial Seeding Technology

During the event, President Dr. Ruto witnessed KEFRI demonstrate the use of drone, as a modern tree seed dispersal technology that is viable to fasten tree growing in the country.

“The Aerial Seeding Technology uses drones to disperse tree seeds along pre-defined routes and landscapes some of which the terrains are unaccessible in normal circumstances,” said Dr. Njuguna.

This approach, is more efficient in restoring degraded landscapes unlike planting seedlings in conventional way, said KEFRI Board Chairman Gen. (Rtd) Samson Mwathethe.

Forest degradation in Kenya has led to destruction of forests, water towers, wetlands and other natural habitat for the wildlife, directly or indirectly endangering biodiversity. Some of the effects of degradation include reduced volume of water in the rivers or total drying up of rivers, changes in the rainfall pattern/desertification, interference with the beauty of the environment by lowering the aesthetic value, disruption of the ecosystem and acceleration of soil erosion.

The Ministry of Environment, Climate Change and Forestry recommends adopting and planting different trees including fruits, nuts and fodder species as a significant leap towards sustainable environmental conservation, afforestation as well as boost food security and household incomes.

KEFRI participates in national tree planting



Residents of Kilifi County planting mangroves to restore the coastline forests

KEFRI staff teamed up with partners in championing tree planting activities in the country.

At the Coast region, KEFRI staff participated in planting 70,853 mangrove seedlings in Kilifi Creek. The Principal Secretary State Department for Youth Affairs and Creative Economy Mr. Ismail Maalim Madey, Kilifi North MP, Hon. Baya Owen Yaa attended the event.

The activity was accomplished in collaboration with the Kilifi County Government, KFS, KMFRI, WWF Kenya, Kenya Prisons Service, KDF, Pwani University, Eden Restoration Projects, Earthlungs Reforestation Foundation, Plan International and Kilifi Creek Community.

KEFRI in collaboration with Lamu County Government and other stakeholders planted 12,000 terrestrial tree seedlings at Mambo Sasa in Witu forest and 5,000 mangroves at Njia ya Ndovu in Lamu Island. The County Deputy Governor Raphael Munyua and Deputy Regional Forest Conservator Mr. Ali Mwamutsi respectively, presided over the events.

So far, KEFRI Lamu has dispatched approximately 17,400 tree seedlings to public institutions and community groups to rehabilitate major coastal forests: Shimba hills, Arabuko - Sokoke, Boni/Dodori, Mangrove forests, and Kaya forests.

The Central Highlands Eco-region Research Programme (CHERP), Director Dr. Eston Mutitu, led staff and community in planting 2,500 seedlings (1,000 bamboo and 1,500 assorted indigenous seedlings) at Ondiri Wetland, and 800 seedlings at the Alliance Girls High School in Kikuyu, Kiambu County.

Speaking during the event, held on 21st November 2023, Dr. Mutitu emphasized on collective commitment for environmental sustainability.

KEFRI staff at Dryland Eco-region Research Programme (DERP) and Japan International Cooperation Agency (JICA) officials joined hands in planting 1000 indigenous trees in Tiva sub-region research centre and Kwa Vonza Primary School, Kitui County on 25th November, 2023.

The exercise that marks 60 years of robust partnership between Kenya and Japan is a significant step towards environmental sustainability and achievement of the 15 billion National Tree Growing and Landscapes Restoration Campaign.

JICA and KEFRI partnership spanning over 37 years has focused on drylands forestry research, capacity building and infrastructure development at KEFRI Headquarters and Kitui Centre.



DERP Deputy Regional Director, Ms. Emily Kitheka and Senior Executive Advisor to the Chief Representative of JICA-Kenya, Mr. John Nguigi, JICA officials at Tiva

KEFRI Lake Victoria Basin Eco-region Research Programme (LVBERP) donated 1,000 assorted indigenous seedlings and participated in tree planting at Kodiaga Medium Prison, Kisumu, where the CS for Public Service, Performance and Delivery Management Hon. Moses Kuria was the Chief guest.

On 4th November, 2023, the Maseno team also joined hands with Professional Association of Nyanza (PANY Women), in planting trees at Maseno University farm.

Cabinet Secretaries for Environment, Climate Change and Forestry Hon. Soipan Tuyua, with her counterparts CS ICT Hon. Owalo and CS Labour Hon. Florence Bore graced the event.

PANY, is a Non governmental Organization (NGO) with over 500 membership across the board, supporting development initiatives, through various interventions in Lake Victoria Basin.

Tree planting Cont.

Rift Valley Eco-region Research Programme participated in the tree planting at Kapkongony Swamp, Chepsumei Sub-County, Nandi County, on 3rd November, 2023. Forestry PS Mr. Gitonga Mugambi and his counterpart PS for Wildlife Ms. Silvia Museiya, KEFRI Acting Director Dr. Jane Njuguna, Chief of Staff and Head of Public Service, Mr. Felix Koskei, Mama Doing Good CEO, Dr. John Chumo, graced the event.

The Mama Doing Good Initiative targets to grow 1 billion trees as a contribution towards the achievement of 15 billion National Tree Growing and Landscape Restoration Programme, Dr. Chumo said.

The Rift Valley Eco-region Director Dr. David Langat, also led staff in a joint tree planting exercise at Mt. Blanket forest in Londiani, Kericho County.

KEFRI donated 350 assorted tree seedlings which were planted in two forest blocks in Timboroa. The former KEFRI Director Dr. Joshua Cheboiwo led in planting 700 tree seedlings at Chepkanga Catholic Church, Uasin Gishu County.

KEFRI staff in Baringo sub-regional programme, on 8th November, 2023, participated in the Baringo Plant Clinic Launch under the Baringo Resilience Initiative Programme. During the event, the Institute showcased different pests and diseases that affect commercial trees and drylands species as well as management and utilization of Aloes.

KEFRI Turbo holds an Open Day



KEFRI Turbo hosted the annual open day for the Rift Valley Eco-region, to give public the opportunity to learn more about forestry and integrated technologies to support farming. Several technologies, products and services were displayed to the public.

Participants were taught on tree seed sourcing and handling as well as utilization of forest products.

Additionally, the participants inquired about fruit trees and indigenous trees species that could be cultivated on-farm. The participants asked KEFRI to market their seedlings which are overgrowing in the nurseries.

The Centre also participated in the 5th Edition of Innovation Week for The University of Eldoret from 1st to 3rd November 2023 under the theme: "Innovating for a Greener and Sustainable Future".



RIFT VALLEY ECO-REGION RESEARCH PROGRAMME (RVERP) - KEFRI TURBO

Invites you to an Open Day on:

THEME: "Utilising research-based interventions for sustainable forests and livelihood improvement"



TIME: 9:00am to 4:00pm**DATE: Thursday 7th December 2023****VENUE: KEFRI Turbo**

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On the cutting edge of scientific exploration

The Tacit Knowledge Sharing Session (TKSS) is a KEFRI platform that allows seasoned researchers to share their invaluable experiences, lessons, and best practices with fellow scientists.



The outgoing Deputy Director of Forest Productivity and Improvement, Dr. James Kimondo (inset), had the opportunity to share his remarkable 40 years of expertise in forestry research.

Dr. Kimondo, extensively explored his achievements, challenges in advancing silviculture amongst other fields of forestry in Kenya.

Forestry is the science of planting, caring and using trees/ forests and their resources. It is also the practice of managing and using trees forests associated resources.

During his leadership as the head of Forest Product Improvement, Dr. Kimondo focused on propelling the Institute conduct research and develop technologies for the establishment of plantations, sustainable management of forests, and trees on-farm.

Dr. Kimondo stated he was instrumental in guiding research on tree improvement, germplasm production and conservation, and production of high quality tree germplasm, domestication and diversification of tree species. This is in addition to forest health management, forest plantation resource assessment, conservation of forest genetic resources; integration of high value trees on-farm.

Dr. Kimondo has played a key role in offering advisory services in management of forest pests and parasitic plants, afforestation programmes which are crucial in ensuring sustainable management of forests and supply of forest products.

Genji Shin 2-year volunteership comes to end

Mr. Genji Shin, a Japanese volunteer presented his 2-year engagement in environmental education and conservation in schools and communities in Kenya. The session was held at KEFRI Auditorium on 12th October, 2023.

“As my voluntary work in Kenya comes to an end, I wish to thank all those whom I interacted with,” said Genji to a panel of KEFRI scientists, Japanese experts and members of community that he worked closely with.

Mr. Genji developed pupils’ interest in environmental conservation by setting up an environmental club at Nguriunditu Primary School, establishing a tree nursery, planting and growing trees.

He participated in forest protection and livelihood improvement activities with Muguga Ecosystem Research Community Forest Association (MERCFA) members such as tree nursery establishment, tree planting, forest protection, bee-keeping, chicken rearing and sharing information about environmental conservation to faith based institutions and community.

The Deputy Director Forest Research Support Services Dr. M.T.E Mbuvi, represented by Mr. Paul Tuwei thanked Mr. Genji for his voluntary work and leadership in environmental advocacy.

Ms. Josephine Wanjiku - Head Training Section, Honjo Yuki-JICA, Mr. Kobayashi- JICA Volunteer Coordinator, MERCFA Chairman Mr. Simon Kamonde and his community group members, KFS representative also attended the session.



Mr. Genji presenting his 2-year volunteership achievements accomplished work in Kenya

5th International Congress on Planted Forests

KEFRI scientists, presented their case studies at the the 5th International Congress on Planted Forests, held at ICRAF (WAC), Nairobi from 7th to 10th November, 2023.

The Conference whose theme focused to expand knowledge on planted forests as 'an essential nature-based solution', had several global experts



Ms Priscilar Kimani, a scientist at KEFRI, explaining to the participants the tissue culture protocols for growing bamboo

KEFRI team led by Dr. Jane Njuguna, had presentations from Dr. Victor Jaoko, Alice Adongo, Angela Muthama, Peter Angaine, Norman Wachira, Nelly Oduor, Justus Mukovi, Leila Akinyi, Dr, Joram Kagombe, Mitchel Akinyi.

The PS Department of Forestry Mr. Gitonga Mugambi emphasized the importance of the conference stating that it is time to embrace the contribution that forests have on the world's economy.

The PS also urged both public and the private sectors to participate in addressing climate change mitigation and adaptation, as their contribution will enhance sustainable forest management, livelihoods improvements and support to the national socio-economic development.

The PS, however challenged scientists to work on diversification of tree species in order to increase the number of viable species in the country.

He further stated that it is necessary to come up with innovative ways of reducing germination and growing time in order to make tree planting more attractive to the public.



During her presentations at the Conference, KEFRI's Ag. Director Dr. Jane Njuguna delved into the declining health of exotic forest plantations, and the potential of indigenous tree species for sustainable development. She also made a presentation on pests and diseases plaguing Mangrove forests in Lamu and Kilifi counties. For sustainable forestry in Kenya, Ms. Muthama advocates for a strategic approach from all players, noting that forest plantation species are undergoing intricate challenges amidst global climatic changes.

Ms. Angela Muthama, a KEFRI scientist, also highlighted on threats that *Cupressus lusitanica* in Kenya's Rift Valley is facing due to pest attacks. In Kenya, *Cupressus lustranica* is one of the most profitable commercial trees grown majorly in plantations and agroforestry.

For sustainable forestry in Kenya, Ms. Muthama advocates for a strategic approach from all players, noting that forest plantation species are undergoing intricate challenges amidst global climatic changes.



Ms Priscilar Kimani, a scientist at KEFRI, explaining to the participants the tissue culture protocols for growing bamboo

The participants paid a visit to KEFRI Headquarters, on 9th November 2023 as part of excursion sites.

The delegation visited KEFRI seed production facility at Muguga, insect reference collection and laboratories. The delegates also visited the glass house where routine testing of seed germination is carried out.



Gen. (Rtd) Mwathethe and Ag. Director Dr. Njuguna receives certificate from Japan Ambassador Mr. Okaniwa

Japan fetes KEFRI on 4 decades of collaboration

His Excellency the Ambassador of Japan Mr. Ken Okaniwa, awarded KEFRI a Certificate of Commendation as Japan celebrated 60 years of partnership with Kenya.

“The Japanese Government through Japan International Cooperation Agency (JICA) is marking the 60th Anniversary celebrations to appreciate stakeholders in many ways for the contributions they have made in this country,” Okaniwa said in a ceremony held at KEFRI Headquarters on 14th November, 2023.

The Chairman of KEFRI Board of Directors General (Rtd) Samson Mwathethe while receiving the accolade commended JICA for establishing infrastructure both at the Headquarters and Kitui where remarkable research innovations have been demonstrated especially for *Melia volkensii* and *Acacia tortilis*.

In her acceptance speech the Ag. Director, Dr. Njuguna appreciated the 40 years of long standing collaboration with Japan and recognised her predecessors the Late Dr. Jeff Odera, Late Dr. Bernard Kigomo, Dr. Paul Konuche, Dr. Ben Chikamai and Dr. Joshua Cheboiwo for steering the research mantle that has made KEFRI a global focus of forestry research todate.

Similarly, the outgoing JICA Kenya Office Chief Representative Mr. Iwama Hajime on 5th December, 2023 visited KEFRI to bid farewell as his 3-year tenure in the country came to an end.

Senior Deputy Director for Corporate Services Mr. George Otieno on behalf of the Director KEFRI thanked JICA Chief for the longstanding relationship that started in 1986.

“We thank the Government of Japan through JICA for the continued technical support and infrastructural development accorded this country especially in development of forestry in drylands,” said Mr. Otieno.

Mr. Hajime pledged for a continuous stronger collaboration between KEFRI and JICA despite his departure.

“JICA remains a reliable development partner in the country. The Cooperation has continued to invest in the development of forestry, health, water, education amongst many other projects in Africa,” said Mr. Hajime.

Bamboo for improving ecosystem and livelihood

A topical discussion on The Bamboo-based Innovations for Upscaling Landscape Restoration and Green Growth in developing countries was held at the United Nations Forum on Climate Change (UNFCCC) Global Innovation Hub, on 9th December 2023.

In a presentation titled “Opportunities for Landscape Restoration with Bamboo in Kenya”, Dr. Jane Njuguna highlighted the enormous opportunities that bamboo presents for mitigating climate change through carbon sequestration and storage, its key role in supporting cottage industries, construction, biomass conversion, flood control, stabilization of riverbanks and other degraded landscapes.

"Bamboo should be considered a potential plant to reverse biodiversity loss and damages. As such KEFRI is propagating quality bamboo seedlings to enhance access by farmers or tree growers," said Dr. Njuguna.

Bamboo uses



Bamboo has high potential for restoring the African forests and savannas, which have ample tourism sites, providing energy sources and energy transmission poles, job creation in cottage and large-scale industrial manufacturing, affordable housing, high positive impact on community livelihoods and resilience for developing countries.

The Government of Kenya seeks partnerships and collaborations to spur bamboo development. It has set an ambitious landscape and ecosystems restoration program to grow 15 billion trees towards restoration of 10.6M hectares and attain 30% tree cover by 2032.

Through this initiative bamboo will occupy at least 30% of the seven (7) of 11 intervention areas from which the country will establish approximately 150,000 hectares.

The Climate Change Act, 2016 requires the Government to develop action plans to guide the mainstreaming of climate change into sector functions. The National Climate Change Action Plan (NCCAP), 2018-2022, helps Kenya adapt to climate change and reduce greenhouse gas emissions.

Some of the measures to reduce emissions is prioritizing bamboo in mitigation activities; climate smart agriculture, increasing the proportion of renewables in the electricity generation mix of the national grid to 100 percent by 2030, promoting energy and resource efficiency across all sectors, and sustainable waste.

Since 1980s, it has been established that many counties including; Vihiga, Migori, Busia, Homa Bay, Uasin Gishu, Elgeyo Marakwet, Kirinyaga, Kitui, Laikipia, Nyandarua, Embu and Tharaka Nithi have taken up growing bamboo on-farm as crops.

NEW VISION FOR EARTH
10.7 November 2023 Hybrid Conference

Global Landscapes Forum

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INTERNATIONAL NETWORK FOR BAMBUS AND OTHER GRASSES

Can bamboo save African livelihoods?

11 October 16:45 - 18:15

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Speakers:

- Prof. Lu Wenming** (China) - Deputy Director General, Institute of Botany, Chinese Academy of Sciences
- Gilongo Mugemizi** (Kenya) - Principal Scientist, Forest Department, Kenya Forest Service
- Jayaraman Dura** (India) - Director, Global Programme, International Centre for Bamboo and Rattan
- Tom Okeke** (Kenya) - Executive Director, Kenya Forest Service
- Isaac Acquah Jr** (Ghana) - Member and Head, Ghana Forestry Commission
- Dr. Jane Njuguna** (Kenya) - Acting Director, National Centre for Bamboo and Rattan
- Muhammad Sofiq** (Indonesia) - Co-ordinator Manager, Climate Impact Program, International Centre for Bamboo and Rattan
- Dr. Salim Reza** (India) - Programme Manager, International Centre for Bamboo and Rattan
- Nellie Mugari Othman** (Kenya) - National Project, Sustainable Growth, International Centre for Bamboo and Rattan
- Gordon Siga** (Kenya) - Principal Scientist, Forest Department, Kenya Forest Service

County Government support towards 15 billion Tree Programme

Forestry Principal Secretary Mr. Gitonga Mugambi attended a consultative meeting with the Council of Governors Management Committee on Water, Forestry and Natural Resources chaired by Vihiga Governor H.E Wilber Otichilo.

The meeting was convened to explore opportunities for partnership between the Ministry and the Counties through the Council of Governors in the implementation of the 15 billion national tree growing and ecosystem restoration programme.

PS Mugambi gave the Committee a detailed update on the ongoing roll out of the tree growing including County targets for the current short rains season where the Ministry has set a 500 million seedlings national target.

The PS commended the Governors for accelerating tree growing in their Counties especially the support they offered the Ministry during the past tree growing drives in their regions.

PS Mugambi was accompanied to the meeting by Mr George Tarus from the Directorate of Forest Conservation, Ministry's Strategy and Policy Advisor Mr. Agostino Neto, KEFRI Ag. Director Dr Jane Njuguna and Coordinator of the 15billion Tree Growing Secretariat Dr. Vincent Oeba.

United Nations COP28 in Dubai

KEFRI's Acting Director Dr Jane Njuguna together with the Ministry's Acting Conservation Secretary Mr George Tarus attended the United Nations COP28 in Dubai, The United Arab Emirates (UAE).

The duo also held a bilateral meeting with Ms. Anne de Valence (Director for Origination and Africa Focal Point at LEAF Coalition) and Mr. Sean Frisby (Chief Partnerships Officer at Emergent) at the Kenya Pavillion Office.

The meeting explored opportunities for partnerships in Kenya's emerging forest carbon market and the country's growing prominence in the LEAF Coalition.

LEAF Coalition is a unique public-private partnership focused on halting tropical deforestation by 2030 through a supply of high integrity carbon credits to the market.

KEFRI and NBSEA to conserve environment

The Roverphiles Nature Based Solutions East Africa CEO, Julie Brown, on 3rd October 2023, held discussions with KEFRI Ag. Director KEFRI Dr. Jane Njuguna on joint research in management of *Prosopis juliflora*, commonly known as the (Mesquet/Mathenge).



“The Nature Based Solutions (NBS) is a land regeneration business that aims to regenerate East African ecosystems into a wealth generation tool for rural communities,” said Brown.

The Company is involved in the removal of invasive woody weed including Mesquite species that is converted into power products.

According to Dr. Njuguna, KEFRI has been involved in research and development of protocols to manage Mesquite, an invasive wood species that poses a grave threat to pastoralism, grasslands, consuming valuable water resources and disrupting native plant species.

KEFRI is carrying out research on the invasive woody weed species amongst them *Prosopis* which was introduced in Kenya due to its drought resistance capabilities.

The study aims to provide insights on the complex dynamics of this species in Kenya's ecosystem, the challenges the species poses to both human and animals, as well as the environment it has already encroached.

The Institute recommends control of the species through management and utilization. *Prosopis* wood, for instance produce quality timber for carpentry, and when converted into charcoal it has high calorific value. The pods are a palatable -a food source for livestock in Arid and Semi Arid lands (ASALs) during the dry spell.

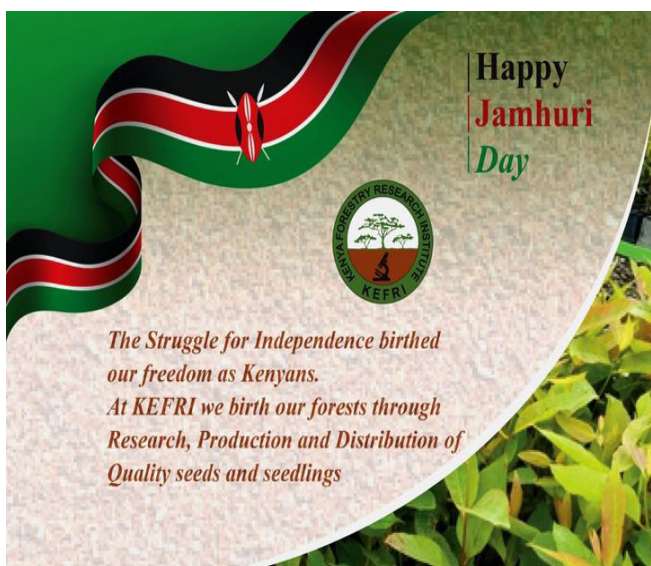
According to experts, *Prosopis* was introduced in Kenya in 1940's to restore degraded landscapes that were threatened by desertification. However, the species due to conducive climatic conditions in these regions, turned invasive, spreading to over 22 counties to-date. General observation has shown dispersal by animals droplets has severely affected 8 counties with immense displacement of native vegetation.

Residents of these counties, majorly the pastoral communities, their sentiments, imply it is very hard to work with *Prosopis juliflora* as its thorns are poisonous.

Prosopis pods are sugary and erodes the teeth of livestock while the thorns injure and paralyse both human's and livestock's limbs.

Most herders do not access grazing fields which are turning to be security risks. We are humbly calling upon KEFRI to research on possibility of eradicating completely this invasive species which isn't even indigenous after all.

“We will start by converting Mesquit, also called the “devil tree” by local communities in Northwestern Kenya, into three sustainable products: charcoal alternative; organic fertilizer (wood vinegar) and mesquite cooking flour,” Ms. Brown said.



Turkana Cultural Festival

KEFRI participated in the Turkana Cultural and Tourism Festival (Tobong'ulore) 2023 held at Lodwar township under the theme: Celebrating Indigenous Culture, Peace, and Tourism. The 3-day festival was officially opened on 12th October 2023.



KEFRI General Manager Enterprises, Ms. Mary Miingi and her assistant Robert Mwachai the Assistant Regional Director KEFRI Turkana Mr. Patrick Mwenje represented the Institute.

The Tobong'ulore Turkana Cultural Festival 2023, is a vibrant annual celebration which brings together indigenous communities to foster cultural exchange, peace, and tourism.

During the official opening, the Chief guest, His Excellency the President of the Republic of Kenya Hon. Dr. William Ruto inaugurated the 2nd Edition of the Turkana Festival, a cherished annual event in Turkana County. The President expressed gratitude to Turkana County for orchestrating a splendid celebration of diversity and peace.

The Turkana Cultural Festival serves as a beacon for peace, cultural exchange, and tourism. Governor Lomorukai called upon the National Government for assistance in creating water pans to conserve water in preparation for the upcoming El Niño rains.

KEFRI actively participated in the festival by showcasing species adaptable to Turkana's environment. This initiative not only aids climate change mitigation but also contributes to the goal of achieving a 30% tree cover. The Turkana Festival, thus, serves as a dynamic platform for fostering progress, preserving culture, and addressing environmental challenges.

Lamu Cultural Festival, 2023

KEFRI participated in the 21st Edition of the Lamu Cultural Festival 2023, held from 30th November to 2nd December, 2023.

This year's theme was "Exploring the rich tapestry of local traditions and technologies, dances and dine that make-up the community's cultural mosaic".

KEFRI exhibited forestry technologies for restoration of degraded coastal forest ecosystems, JazaMiti App, establishment of mangrove nurseries for the nine coastal species, propagation of difficulty to propagate tree species, production of superior germplasm for coastal region.

The public expressed interest in value addition and commercialization to bamboo products and the conservation of *Euphorbia tanaensis*, an endangered tree endemic to Lamu.



Assistant Region Director Henry Komu with a visitor at KEFRI's display in Lamu

Mainstreaming Road Safety

Members of KEFRI Road Safety Committee carried out a sensitization training for staff in Lamu (inset photo) Rongo, Turkana, Garissa, and Ramogi. The aim is to mainstream road safety strategies to staff at KEFRI sub-regional programmes.

Road safety helps protect the road users: drivers, passengers, roadside workers, cyclists, and pedestrians. Driving for work can be dangerous, no matter how much experience an employee has or how much time is spent behind the wheel.

KEFRI & Lukenya University signs MoU

KEFRI and Lukenya University has signed an Memorandum of Understanding to propel research in wood science and timber technology; capacity building of scientists and rehabilitation of Kenya's drylands.



Prof. Nyamboga and Dr. Njuguna exchanging the MoU witnessed by Lukenya Director Stanislaus Mwilu and KEFRI Scientist George Muthike

KEFRI acting Director Dr. Jane Njuguna and Lukenya University VC Prof. Constantine Nyamboga signed the agreement on behalf of the two institutions.

Lukenya University is located in the drylands of Makueni and depends on irrigation. KEFRI offer technical advise and related technical knowledge on tree management.

Dr. Njuguna stated that the collaboration will expand reserach on wood and the timber tree species in the drylands of Kenya.

University of Notre Dame pact with KEFRI

Professor Krister Andersen, of the University of Notre Dame, paid a courtesy call to KEFRI on 16th October, 2023 and held a discussion with Ag. Director KEFRI Dr. Jane Njuguna on initiatives to improve livelihood of forestry adjacent communities and strategies for revitalization.





HAPPY New Year 2024

The new year comes with blessings and the opportunity to do better.

KEFRI will be providing Quality Tree Seeds to achieve 15B 🌳🌲🌳 by 2032



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