



# KEFRI *Newsletter*

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Cabinet Secretary for Environment and Forestry Mr. Keriako Tobiko, applauding KEFRI staff who developed the tree growers software - KEFRIApp, that he launched during the opening ceremony of 2-Day NETFUND National Forestry Conference in Nairobi



CS Keriako Tobiko assisted by KEFRI ICT staff Esther Manyeki and Norah Koima in accessing KEFRI-App which will be guiding tree growers on tree species-site matching and marketing of seedlings

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**KEFRI launch Tree Growers Application**

KEFRI has launched a software to enable tree growers share information on tree species - site matching as well as documenting tree planting activities in the country.

The Cabinet Secretary for Environment and Forestry, Keriako Tobiko launched the KEFRIApp at Ole Sereni Hotel, Nairobi-Kenya during the official opening of the National Environment Trust Fund (NETFUND) 2-day national conference that was discussing the role of technology and innovation in forestry for delivery of the Big 4 Agenda.

“I sincerely commend the entire team led by KEFRI for developing a revolutionary application that will enable capturing of data on tree planting,” said Tobiko.

Tobiko further stated that innovations and technologies rolled out to the public should be appropriate and practical just like our forefathers used traditional knowledge or indigenous practices.

“The KEFRIApp will bring about a paradigm shift from the traditional sporadic tree planting trends to a more impactful culture where accuracy of trees planted from 2018 when President Uhuru Kenyatta launched the National Tree Planting Campaign will be recorded,” said the CS.

The CS urged KEFRI to sensitize all stakeholders on use of the Application to facilitate documentation of tree growing initiatives, noting that the Government is keen on achieving 10% tree cover within the country by 2022.

“Likewise, KEFRI should expand its seed collection centres from the current 6, a move that will enable collection of adequate tree seeds needed by the country to raise 1.8 billion seedlings,” further said Tobiko.

The event was also graced by the presence of PS MoEF Dr. Chris Kiptoo, KEFRI and NETFUND CEOs Dr. Joshua Cheboiwo and Samson Toniok respectively, Kenya Forest Service representative Mr. Noor Hussein, Forest Society of Kenya, Better Globe Forestry among others.

KEFRI Director Dr. Joshua Cheboiwo (pictured) in his keynote address stated that KEFRI is improving the quality of tree seed and seedlings for commercial species and other products including bamboo to advance forestry in Kenya.



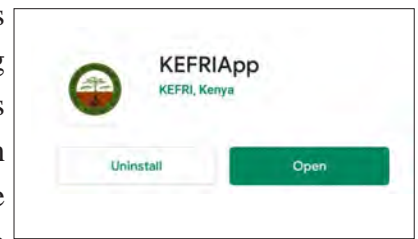
“KEFRI is researching on Rose gum (*Eucalyptus grandis*), amongst 49 other species found in the country. Latest findings have shown *E. grandis* in Kenya has yielded 75m<sup>3</sup> (cubic metres) of wood per ha which compares far above average output to other countries with similar plantation,” said Dr. Cheboiwo.

KEFRI Senior Deputy Director for Research and Development Dr. Jane Njuguna in her presentations, 'the status of KEFRIApp' and 'Piloting of Aerial Seeding Technology at Maasai Mau Forest', said the App is a mobile digital platform, through the m-Forester module that will facilitate marketing of tree products through e-commerce.

“We have ample researched technologies and innovations for supporting the Government's commitment to restore 5.1 million hectares of degraded landscapes and forests in Kenya by 2030,” said Dr. Njuguna.

Dr. Njuguna revealed that over 41 million tree seedlings have been documented using the software, while verification of seedling mortality in the field will be incorporated in the next phase.

The PS Dr. Chris Kiptoo reacting to Dr. Njuguna's presentation noted that the App will enhance



coordination of smart greening to restore degraded forests and other landscapes in the effort towards the attainment of 10% tree cover

Other KEFRI scientists including Dr. David Langat's presentation tabled by Jonah Kiprop-virtually, indicated a need to protect and conserve three water towers in Kenya - Mau Forest Complex, Cherangany and Mt. Elgon from human induced destruction activities. “Before forest moratorium -2018, these water towers supported adjacent communities with resources approximated at Ksh 22.9 billion per year and valued at 5% of GDP, the study revealed.”

Ms. Nelly Oduor, lauded bamboo as a resource that has potential to contribute to our country achieving 10% tree cover. Additionally, bamboo can produce thermal energy and briquettes at industrial and domestic levels, thus upscaling of various species at different ecological zones is a critical intervention to curb over-reliance on fuelwood from gazetted forests.

Other striking technologies and innovations presented in the conference were; use of seedballs and drone (picture) by Kenya Eden Reforestation Projects in rehabilitating degraded forests and other landscapes in the country, according to Operation Manager Mr. Victor Mwanga.



“Kenya Eden Reforestation Projects is collaborating with Kenya Forest Service and has established 30 community tree nurseries, and planted over 6 million seedlings covering terrestrial and mangrove forests in Kenya,” said Mr. Mwanga.

Degraded forests of Maasai Mau, Aberdare Range, Mt. Kenya and Gwasi Hills have benefited from enrichment planting, a move that will also improve livelihoods of forest adjacent communities.

Mr. Mwanga urged the Government through Kenya Civil Aviation Authority to make acquisition of drones easier, more so for use in destined areas.

Mr. Jan Vandenabeele of Better Globe Forest, revealed that communities living in drylands - with as low as 400 mm rainfall per annum could apply simple principles on soil, water and topology to grow forestry plantations, particularly of improved *Melia volkensii* to improve the environment and livelihoods.

“There is huge potential in integrating forestry practices for food security and restoration of landscapes in Kitui, Embu and Machakos if the Government supports farmers with improved/certified seeds to establish tree nurseries for production of quality seedlings,” Jan stated.

## H.E Volkan Bozkir, the President of the United Nations General Assembly (UNGA) visit John Michuki Memorial Park (JMMP)



H.E Volkan Bozkir planting a commemorative tree at Hon. John Michuki Memorial Park (JMMP), a rehabilitated green space

The President of the 75<sup>th</sup> Session of the United Nations General Assembly (UNGA), H.E. Volkan Bozkir, has commended the Government of Kenya for hosting the biggest United Nations space in the world and being ahead of many countries in restoring green spaces.

H.E. Bozkir made the remark while visiting John Michuki Memorial Park and the National Museums of Kenya in Nairobi. President Bozkir was accompanied by the CS for Environment and Forestry Mr. Keriako Tobiko, PS for Housing, Mr. Charles Hinga and Permanent Representative for Kenya to the UN Habitat Her Excellency Ambassador Jean Wambui Kimani.

“The UN supports communities in restoring and maintaining urban green spaces for biological diversity conservation, air and water purification, aesthetic uses, general health, noise reduction, education and climate change mitigation,” said Bozkir.

The CS, Keriako Tobiko, thanked the UN for recognizing Kenya's greening programme efforts in environmental conservation and for supporting assessment of green spaces in the country.

KEFRI Senior Deputy Director for Research and Development Dr. Jane Njuguna, Nairobi Metropolitan Services Director General Mohammed Badi, Chief Conservator of Forests Mr. Julius Kamau, NEMA Director, Dr. Mamo B.

Mamo were among the delegates who toured the Park - KEFRI tree nursery and demonstration site, and the open air Amphitheatre.

“We are happy to acknowledge that JMMP, a reclaimed dumpsite, is attracting high level visitors due to its status as a world class model of urban green space,” remarked Dr. Njuguna.

According to Kenyanewsmedia, H.E. Volkan Bozkir, a Turkish diplomat and politician, had earlier met President Uhuru Kenyatta at State House Nairobi, and held discussion on sustainable urbanization, bilateral and multilateral issues among them preparations for the 76<sup>th</sup> Session of the UN General Assembly (UN76) meeting set for Nairobi in September 2021.

Mr. Bozkir, was accompanied to the meeting by Director General of the United Nations Office in Nairobi (UNON) Ms Zainab Hawa Bangura, thanked President Kenyatta for Kenya's strong advocacy for multilateralism and support for the United Nations system.

### **Marking the 2021 World Desertification and Drought Day**

KEFRI participated at the Global event to mark the World Desertification and Drought Day, held at Korolle Oasis in Marsabit County on 17<sup>th</sup> June, 2021.

The Ministry of Environment and Forestry and its SAGAs, Marsabit County Government, and Non-governmental agencies supported the event, whereas the National Environment Management Authority (NEMA) spearheaded the events that included tree planting exercise.

KEFRI Director Dr. Joshua Cheboiwo led KEFRI team comprising, Deputy Director in charge of Forest Biodiversity and Environment Management Dr. James Ndufa, DERP Director and Deputy Dr. Albert Luvanda and Josephine Musyoki respectively, Communication Officers; Messrs Gitonga Stephen and Samson Mogire, Francis Maithya, a seed collector in celebration and accomplishing other tasks within the region.

During the D-Day, Marsabit Governor Mohamed Mohamud Ali and the Chief Administrative Secretary Ministry of Environment and Forestry Hon. Mohamed Elmi graced the occasion by planting trees at Korolle Oasis, a critical water source at the edge of Chalbi desert-occupying 100,000 square kilometers (38,610 square miles) in the Northern Frontier.



Governor Mohamud Ali planting Acacia tree at Korolle Oasis to celebrate the 2021 World Desertification and Drought Day

“This celebration offers an unique opportunity for us to develop partnerships and explore pre-requisite strategies to address environmental degradation issues, which my county will be implementing every year,” said the Governor.

The Governor also stated that land is getting degraded due to climate change, rapid population growth and overstocking of livestock, awareness creation is crucial to strengthen efforts in mitigating desertification and drought.

“It is a big challenge to plant trees in ASAL areas, but we have been sensitizing communities to collect seeds locally as well as plant native species like Acacia, that are resilient to the region climatic condition,” said Dr. Mamo.

Others present at the function were Marsabit Senator Godana Abubakar Hargura, Laisamis MP, Hon. Arbelle Marselino, North Horr MP Chachu Ganya, NEMA Board chairman John Konchellah, Kenya Water Towers Agency Board chairman Dr. Julius Malombe, National Environment Trust Fund CEO Samson Toniok, and World Wide Fund CEO Mohamed Awer and local leaders.

KEFRI donated 310 assorted indigenous tree seedlings including; *Melia volkensii*, *Acacia* spp, *Azadirachta indica* and *Balanites aegyptiaca*. The Dryland Eco-region Research Programme Director Dr. Albert Luvanda provided the seedlings which were planted at Kargi Health Centre and Korolle Oasis as a gesture towards restoration of areas surrounding Chalbi Desert. KEFRI also pledged to donate 20 beehives and a 5000-litre water tank to the community.



KEFRI staff showcasing technologies on value addition to wood and non-wood forest products including *Aloe vera*, gums and resins, improved *Melia volkensii*, as resources for improving ASALs ecosystems and livelihood

Elsewhere, Central Highlands Eco-region Research Programme celebrated the World Day to Combat Desertification and Drought at Rumuruti Sub-regional Centre, in Laikipia County, where the attendees were trained on tree nursery establishment, tree management and certification.



CHERP Director Dr. Eston Mutitu handing over a water boozer from KEFRI headquarters to facilitate the sub centre acquire adequate water for use in the tree nursery

The Regional Director Dr. Eston Mutitu highlighted soil analysis, certified seed, tree species - site matching, tree planting skills as critical aspects to curb land degradation and increase tree and forest cover. Dr. Mutitu also urged tree growers to acquire certified tree seeds for maximum yield in seedling production and tree form.

### GEF-6 Project National Steering Committee hold its 3rd meeting

KEFRI is implementing The Restoration Initiative (TRI) a GEF/FAO Project at Mt. Kulal and Mukogodo. The project aims to restore forests and degraded landscapes through the Forest and Landscape Restoration (FLR) approach and enhance socio-economic development of local communities through integrating bio-enterprises of Non-Timber Forest Products (NTFPs) in arid and semi-arid lands.

Consequently, the TRI intends to systematically scale up best practices and lessons learnt to other priority landscapes in Kenya.

Stakeholders in the project on the eve of World Desertification and Drought Day, thus held a virtual meeting at Marsabit on 16<sup>th</sup> June 2021, deliberating on work progress including; status of environmental conservation, capacity building, and other developments.

### Mt. Kulal Biosphere Reserve Forest

KEFRI Director Dr. Joshua Cheboiwo interacted with the Community Forest Association (CFA) and Wazee wa Mazingira, who are the main teams conserving Mt. Kulal Forest Biosphere.



KEFRI Director Dr. Cheboiwo (Centre), Deputy Director FBEM Dr. Ndufa, and Prof. Patrick Maundu - NMK (right) briefing the community at Gatab on the review of the Mt. Kulal Biosphere Reserve Management Plan 2021-2025

KEFRI in partnership with National Museums of Kenya and other stakeholders are developing Mt. Kulal Biosphere Reserve Forest Management Plan 2021-2025 which will be launched soon.

Dr. Cheboiwo commended Mt. Kulal community for conserving the forest through cultural means. The Director however, challenged parents to educate their children and seek employment opportunities other than depending solely on the forest resources.



Dr. Cheboiwo accompanied by area Chief Hosea Lemuni (left), Dr. Ndufa and CFA members during an inspection tour in part of forest sites under rehabilitation in Mt. Kulal biosphere

“Forest sector may support economic growth and alleviation of poverty in some regions, but forest exploitation and the uncertain land tenure situation in Mt. Kulal biosphere represents a challenge for sustainable forest management,” Dr. Cheboiwo further said.

The Director pledged to empower the community - through training CFA members and offering tools to establish tree nurseries in Gatab and Arapal. This will greatly facilitate production of quality seedlings that are needed for rehabilitating the 5,700 ha of the core zone and contribute towards attainment of 10% national tree cover by 2022.

### **Mukogodo Forest Reserve**

KEFRI through the TRI project is establishing tree nurseries to produce seedlings for reforestation of Mukogodo Forest Reserve, stretching 30,189 ha in the core of Laikipia - Samburu ecosystem. Mukogodo is Kenya’s only gazetted forests under the sole custodianship of an indigenous community - the Yiaku, pastoralist who initially were hunter-gatherers. The community has the rights as well as full responsibility for managing the forests’ diverse flora and fauna. So far Olajiju Primary School, in Mukogodo has benefited from tree seedlings planted under the national tree planting programme for attainment of 10% tree cover.

### **2021 World Environment Day**

The 2021 World Environment Day was marked on June 5<sup>th</sup> 2021, where the Cabinet Secretary Ministry of Environment and Forestry Keriako Tobiko led the celebrations in planting 1000 trees at Garissa University.

In a Presidential speech, the CS stated that President Uhuru Kenyatta precisely chose Garissa University to honour the students who lost their lives during the infamous Garissa terror attack.

“Garissa University was chosen as the venue for this year’s environmental celebrations to show the world that Kenyans are resilient despite the terror attack that took place at the University in 2015,” said Tobiko.



CS Keriako Tobiko (with spade), Dr. Jane Njuguna and Dr. Jackson Mulatya during the tree planting to commemorate the World Environment Day

The National Environment Management Authority (NEMA) coordinated the celebrations that also marked the launch of the United Nations Development Programme (UNDP) Decade Ecosystem Restoration 2021-2030.

The celebrations comprised of clean-up exercises as build-up activities towards the tree planting marked countrywide, under the theme 'Ecosystem Restoration with the slogan-: Act Now, Restore Nature and Livelihoods', in short Reimagine-Recreate-Restore.

Environment and Forestry PS and CAS, Dr. Chris Kiptoo and Hon. Mohammed Elmi, respectively, Health CAS Dr. Mercy Mwangangi, heads of SAGAs, Garissa County Governor Ali Korane and Senator Abdikadur Haji attended the event.

“Our country has achieved 80% success on the ban of plastics, despite few challenges. The ministry is drafting a policy to encourage a circular model that view waste as wealth,” said Dr. Kiptoo.

Dr. Kiptoo further added that the Ministry is supporting KEFRI to expand seed collection centers countrywide with an intention of increasing availability of high-quality seeds to 200 metric tonnes per year. Garissa County is earmarked to receive 42.5 metric tonnes of tree seed.



Students of Garissa University joining hands in a tree planting exercise outside the hostel where terrorists, in 2015, killed 148 and injured 79 most of them students

The County Governor Ali Korane instructed students and lecturers to adopt a tree each so that they can nurture the saplings to maturity.

“Garissa County is struggling with environmental degradation, including severe impacts of climate change and management of invasive *Prosopis juliflora*, locally known as 'Mathenge'. These negative effects, have made our people, who majority are pastoralists, loose grazing grounds that are key sources of livelihood,” Governor Korane reiterated.

KEFRI Senior Deputy Director for Research and Development Dr. Jane Njuguna led KEFRI staff from Headquarters, Kitui and Garissa in the tree planting during the celebration.

“KEFRI has developed technologies to manage *Prosopis* that include; uprooting, utilization for production of fuelwood and other energy products, conversion into construction materials, human and animal feeds, among other products.

KEFRI Drylands Eco-region Research Programme also celebrated the World Environment Day at Kwa Mwambi Primary School in Kitui West, Kitui County, where the County Environment Deputy Director Mr. Dominic Mumbu on behalf of Governor Charity Ngilu, launched the UN Decade on Ecosystem Restoration 2021-2030 for Kitui County.

KEFRI scientist and silviculturist, Mr. Bernard Kigwa, distributed 400 seedlings on behalf of the Institute and urged community in semi arid regions to grow improved Mukau (*Melia volkensii*) as viable commercial tree crop, with potential to provide new income streams.

“Mukau is over-exploited in its natural habitat, where it grows wild due to its valuable timber. But the improved variety can grow in Kitui, Makueni, Tharaka Nithi, Embu, Meru, Taita Taveta, Isiolo and Mandera Counties,” said Mr. Kigwa.

At the same period, the Competitions Authority of Kenya (CAK) facilitated Muguga Ecosystem Research Community Forest Association (MERCFA) also known as Muguga Community Forest Association (CFA) jointly with other stakeholders managing Muguga Forest in marking the 2021 World Environment Day at Lusegetti Level 4 Hospital, Kiambu West on 11th June 2021.

The CAK Director and Chief guest, Mr. Eric Mwangi, lauded KEFRI for providing technical expertise, partnering institutions and the community for planting 150 trees under the 'Theme Ecosystem Restoration'.

MERCFA Chairman, Simon Kamonde appealed to other supporters to prosper the campaign of planting 2,000 trees at the facility, noting that the seedlings also need critical care as the site lies in an ecological transition zone.



## CERP Open Day

KEFRI Coast Eco-region Research Programme held an Open Day at Gede on 25th June 2021, to sensitize stakeholders on forestry technologies. The Open Day is an annual event where the centre showcase various forestry technologies including: production of high quality tree seed, establishment and management of tree nurseries, production of quality seedlings, rehabilitation of mangrove, and utilization/value addition to wood and non-wood forest products.

The Open day was attended by stakeholders including KFS, KWS, Nature Kenya, Kenya Eden Reforestation Projects, Ufanisi Conservation Group, Mida Creek Conservation Groups, Cobec, Msitu Womens Group, KCB, National Bank, Britam and Leggo Insurance. Among these stakeholders, some exhibited their products and services at the event.

The Regional Deputy Director - Dr. Stanley Nadir, advised attendees to plant more trees including bamboo to increase forest cover and mitigate the effects of climate change in the region.

## KEFRI Lamu Farmers' Fair and Open Day

KEFRI Lamu Sub-regional Centre held a Farmers' Fair and Open day at Mokowe, on June 16<sup>th</sup> 2021.

KEFRI staff showcased technologies and innovations on production of high quality tree seeds and seedlings; restoration and management of mangrove and other ecosystems; and development of wood and non-wood forest products.

The staff also sensitised the community on importance of; conserving mangroves, and growing bamboo on-farm, for diverse uses e.g., soil erosion control, and construction.

KEFRI also collaborated with Nature Kenya, Kenya Eden Reforestation Projects, Northern Rangelands Trust, The Nature Conservancy, World Vision and nature based community groups.



Phedister Riziki, a forester at KEFRI, creating awareness of suitable tree and mangrove species to pupils and students during the exhibition at Mokowe, in Lamu County

KEFRI Lamu sub-centre also held a farmer's field day at Mkunumbi forest restoration site in Lamu themed, under the theme 'Restoration, Management and Utilization of Mangroves.'

During the field day KEFRI partnering with Kenya Eden Reforestation Projects and local organization planted 4800 mangrove propagules to restore the degraded sites. Eden Project is also rehabilitating degraded landscapes of Northern Coast and the Great Rift Valley. Its international team in Kenya has facilitated in planting over 8 million trees including mangroves.

## Promoting Bamboo for Cottage industries

KEFRI Rift Valley Eco-region Research Programme (RVERP) joined more than 100 Micro-Small- and Medium Enterprises in an Expo held at Moi Gardens Kericho themed 'Empowering MSME's for Economic Growth in Kericho County'

"During the 3-day fair, KEFRI team displayed technologies on bamboo propagation and utilization, targeting the youth to embrace bamboo for cottage industries and livelihood improvement," said, KEFRI scientist, Roxventta Othim.

The Ministry of Industrialization, Trade and Enterprise Development, in partnership with the County Government of Kericho organized the fair that offered free advisory services on business opportunities, information on markets and financial services.



CS for Industry and Trade Ms. Betty Maina and her accompanying delegates interacting with Roxventta Othim, during her visit at KEFRI stand

“Bamboo which grow well in the highlands of Rift Valley is a fast growing grass with potential to create employment opportunities and source of livelihood for many families in the country,” said CS Betty Maina when she toured KEFRI stand.

The Expo provided a platform for the enterprises and institutions in diverse industries and trade to showcase their product and enhance linkage for local MSMEs in Kericho County.

**Tree planting in Central Highlands**

KEFRI Central Highlands Eco-region Research Programme (CHERP) jointly with Kenya Deposit Insurance Cooperation (KDIC) on 30<sup>th</sup> April 2021, planted 2000 tree seedlings in Kanjeru and Gitutha Primary Schools in Kabete, Kiambu County.



Dr. Eston Mutitu (holding spade), Mr. Mahmud and Dr. James Ndufa planting a commemorative tree at Kanjeru Primary School

The Eco-region Director, Dr. Eston Mutitu and KDCI CEO Mr. Mahmud Ahmed Mahmud and respective school head teachers, led the tree planting exercise.

Mr. Mahmud informed those present that his organization is on a mission to distribute 10,000 seedlings to schools and other community institutions in Kiambu County, as part of its contribution to increase tree cover in the country.

“KEFRI will provide technical expertise and liaise with head teachers to ensure the saplings are nurtured to maturity,” Dr. Mutitu said.

**Fruity trees for schools in Kenya**

KEFRI jointly with Fruity Schools Africa Project in Kenya and with support from various Government Ministries including Education, and Ministry of Environment and Forestry planted 200 avocados, and 100 strawberry and guavas at Nairobi River Primary School, Starehe in Nairobi County, on 19<sup>th</sup> June, 2021.

KEFRI Senior Deputy Director for Research and Development Dr. Jane Njuguna officiated the launch of the project in Kenya on behalf of the CS Ministry of Environment and Forestry, Keriako Tobiko.



Dr. Jane Njuguna (in white & back Polo Shirt) launching the fruit tree planting event at Nairobi River Primary School

“The MoEF is mobilising stakeholders to grow the 2 billion trees to achieve the 10% tree cover for the country by 2022,” said Dr. Njuguna, highlighting the critical role 4K Clubs can play in imparting the tree and food growing culture to school children.

“While the Government is keen to see the inclusion of schools in tree planting programme countrywide, KEFRI is ready to provide necessary skills, especially for tree species - site matching to support the achievement of improved tree cover,” said Dr. Njuguna.

“The Institute will avail technical information on tree species - site matching through the newly launched KEFRIApp as well as provide quality tree seed,” Dr. Njuguna added.

“The Fruity Schools Project aims to grow over 1 million grafted fruit trees and indigenous trees in over 35,000 schools in Kenya as a contribution towards achieving 10% tree cover. The project will engage pupils on nutrition, health matters and growing trees for environmental conservation,” said the Project Team Leader, Mr. Kennedy Odoyo.

Mr. Odoyo further said the Project, is seeking grants from private and public institutions, to supporting schools countrywide specifically with water harvesting technologies and fencing materials to safeguard the fruit trees.

### **KEFRI and Subati Group explore Sandalwood investment in Kenya**

On 21<sup>st</sup> June 2021, KEFRI hosted Director and the Chief Operation Officer of Subati Group Limited Mr. Ravi Patel and James Farquharson, respectively and held a discussions on Sandalwood investment, partnership and policies in the country.



The delegation that attended the meeting, (L-R); Mr. Farquharson, Dr. J. Kimondo, Peter Gachie, Bernard Kamondo, Ravi Patel, Giathi Githi and Dr. James Ndufa, agreed to develop an MoU between the two institutions to facilitate domestication of Sandalwood and reduce poaching of the wild species

“Subati Group, which is a grower and exporter of flowers, herbs and fruits in Kenya, plans to invest in growing 200 hectares of Sandalwood in Kibwezi - Makueni County and Subukia - Nakuru County,” Mr. Patel informed the meeting.

He further disclosed that Subati Group plans to undertake processing of Sandalwood oil, noting Sandalwood is among the most expensive trees in the world, and it is used in production of oil for cosmetic and pharmaceutical industries - making fragrance and medicines. The species takes around 25 to 30 years to produce quality oil.

“Availability of seed is one of the major challenges constraining propagation of East African Sandalwood which consequently affects seedlings production,” disclosed Dr. James Kimondo, KEFRI's Deputy Director in-charge of Forest Products Improvement.



Marcotting, a trial to induce rooting at the node while the branch is still attached to the parent plant (File photo)

“KEFRI scientists have undertaken research towards developing propagation techniques and nursery management protocols to enable domestication of the species,” said KEFRI's Deputy Director for Forest Biodiversity and Environment Management, Dr. James Ndufa. Current research is focused on determining environmental factors influencing the genetic diversity and oil content of East African Sandalwood (*Osyris lanceolata*).

According to Dr. Ndufa who chaired the meeting on behalf of Director, Dr. Cheboiwo, investigation on air layering (marcotting) as an alternative propagation technique to the use of seeds or cuttings that germinate or root poorly, in addition to trials of suitable host plants both at the nursery and in the plantations has shown success.

Regarding policy issues, Sandalwood is classified among the protected endangered species in the Sixth Schedule under the Wildlife Conservation and Management Act, 2013. However, the Tenth Schedule of the Act allows farming of Sandalwood.

## Fire Evacuation Drill

KEFRI has capacity to respond to emergencies having trained champions in First Aid, fire marshals, disaster management, counter terrorism strategies among other measures for safeguarding lives and properties.

This was a Directors remark delivered by Deputy Director in-charge of Corporate Affairs and Quality Assurance Dr. Jackson Mulatya who was speaking during a Fire Evacuation Drill conducted at KEFRI headquarters on 20<sup>th</sup> May, 2021 with technical support from Nairobi County Fire Rescue and Disaster Management Unit.

“KEFRI has operationalized Occupational Safety Health Act (OSHA) requirements in compliance with statutory obligations. The Institute has an internal OSHA Committee since 2010,” said Dr. Mulatya. He further stated that KEFRI is ISO 9001:2015 and 14001:2005 IMS certified and has developed emergency preparedness response procedures and documented work instructions to safeguard KEFRI work environment.



KEFRI staff and City County officials who spearheaded the demonstrations on rescue, firefighting, evacuation and emergency medical services

The Nairobi City County’s Senior Fire Prevention Officer, Mr. Paul Thuku, stated that Fire Evacuation Drills are conducted randomly to gauge preparedness in case of a real emergency and in accordance with the Occupational Safety and Health Act 2007.

Thuku noted that majority of staff responded to the alarm and moved to a safe or the destined fire assembly point. He noted some staff showed panic and laxity and thus appealed for self-responsibility as well as calmness in such situations.

“Incase of real fire outbreak, move to a safe place preferably the fire assembly point, never use lifts but staircase, and whenever possible helping the persons living with disability and the expectant mothers. Once in that assembly point, cue next to colleagues for accountability,” said Thuku.

“Fire in seconds can be a menace - it is a very good servant but bad master,” said Fire Prevention Officer Mr. Wilson Kabira Wanjiru.

Mr. Kabira urged staff to instill fire extinguishers in homes and personal vehicles as a safety measure. Further, he urged the staff nevet to obstruct ambulances and fire engines to facilitate evacuation.

KEFRI Chief Research Scientist Dr. Robert Nyambati who is also the Fire Drill and OSHA Chairman commended staff for quick response noting that grey areas will be rectified to ensure compliance and safety in work place.

Senior Administration Officer Mr. Fredrick Odhiambo stated that though the drill was meant to gauge compliance and evaluate staff response in case of real fire outbreak, it was also an opportunity to monitor compliance to COVID pandemic guidelines.



Dr. Jackson Mulatya presenting a gift to Anne Kamau for her prompt response to the fire alarm

Anne Kamau was recognised for being the first staff to arrive at the fire assembly point, Susan Mwaniki for firefighting action and Dorothy Akinyi for acting in procedures of aiding an injured person during an emergency.

## Donation to vulnerable children

Officials of KEFRI Choir donated foodstuffs and tree seedlings to Tumaini Children's Home in Riamukurwe, Nyeri County, on 26<sup>th</sup> June 2021.

The officials who were accompanied by Assistant Regional Director in-charge of KEFRI Nyeri Sub-centre, Mr. Stephen Ndungu, visited the home that is run by Presbyterian Church of East Africa (PCEA) Riamukurwe Parish.

The visit was part of KEFRI's corporate social responsibility (CSR) activities, and involved bonding with around 100 children from less privileged families, tree planting, cleaning, tilling the garden among other activities.



Similarly, KEFRI has extended donation to various national events including the ceremony to mark the International Day of Biodiversity, held at Nasaru-Olosho Nature Conservancy in Kajiado County on 22, May 2021.

The Institute together with Kenya Forest Service donated 11,500 seedlings of various tree species to the schools and adjacent institutions and demonstrated best practices in tree planting and management practices for drylands while emphasizing the importance of tree species - site matching for optimal tree survival and improved productivity.

The event also involved planting trees at the Rangers Camp and Primary School, launching of a solar powered borehole and a visit to Nalepo Beekeeper, a nature based project empowering Maasai women in Nasaru-Olosho.

## Forester trainees in search of forestry skills

A group of forester trainees from Kenya Forestry College Londiani, Kericho County, visited KEFRI between 14<sup>th</sup> and 15<sup>th</sup> June 2021, to expand their knowledge in practical application of forestry.

Londiani college provides technical courses in forestry and related fields. The college also offers capacity building short courses for staff already on the job.

Mr. Micah Chebii, a lecturer at the college, led the students in the field study at KEFRI defined sites to gain technical skills including silvicultural practices and relevant interventions applied in management of trees and forests. During the visit to the Seed Production Unit, the students were exposed to the scientific procedures of processing quality tree seeds which entail; harvesting, pre-treatment, pre-germination tests, packaging, and distribution.

The students also visited research laboratories, seed orchard, and a recreational forest plantation - that is monitored for biodiversity conservation and provision of environmental services. The plantation is used for research in carbon cycling, temperature regulation and monitoring of changes in understorey vegetation.

At the National Forest Products Development Programme in Karura, the students learnt about contribution of research towards development and promotion of efficient technologies for; sustainable harvesting and utilization, and value addition to wood- and non-wood forest resources.

KEFRI Workshop Manager in-charge of forest product development, Mr. George Migom, demonstrated the use of wood-mizer, a modern sawmill equipment for log conversion to timber.

The trainees were also exposed to technologies for value addition to wood and non-wood forest products (NWFP) as a potential alternative source of income.

## KEFRI and GFA for Youth Empowerment



Dr. Mulatya presenting KEFRI profile to Ms. Kandia during the meeting that Ms. Sarah Mogaka, Dr. Stephen Omondi and GAF team leader Antony Masinde attended

The Deputy Director for Corporate Affairs and Quality Assurance, Dr. Jackson Mulatya, on 10<sup>th</sup> May 2021, at the headquarters held discussion with Mr. Antony Masinde and Ms. Eunice Kandia from GFA Consultancy Group on collaboration to engage youth and women in forest enterprises.

“GFA Consultancy on behalf of German Agency for International Cooperation (GIZ) is empowering youth and women in Africa through -Agri-Jobs 4 Youth, a global employment project in rural areas,” said Mr. Masinde.

After lengthy discussion, the representative from both institutions agreed to support youth and women in Western Kenya counties of Vihiga, Kakamega, Busia, Bungoma and parts of Siaya through establishing tree nurseries and related forestry projects to create employment and improve livelihoods.

“Kenya with almost 80% of its landmass classified as arid to semi-arid is likely to face growing environmental challenges in the coming decades, with land use change and degradation increasing, climate change, conflict and the economic fallout from the COVID-19 pandemic, youth engagement in forestry bioenterprises and related environmental restoration is key to power new integrated models of green growth,” said Dr. Mulatya.

## Entrenching road safety crusade

KEFRI is conducting road safety campaign towards reducing road traffic injuries and deaths, as outlined in the government intent - the 17<sup>th</sup> Cycle of Performance Contracting 2020/2021.

A multi-sectoral approach is necessary to ensure that road safety issues are made an integral part of Government programme/projects. Ministry departments and agencies are required to actively engage in developing projects and executing activities that contribute to prevention and management of Roads Traffic injuries and fatalities in Kenya. According to the statistics from the lead road safety agency- the National Transport and Safety Authority (NTSA), over 3,000 deaths in Kenya occur annually due to road traffic injuries mainly affecting people aged between 15 and 29 years.

Some of the road safety risk factors include; vehicle speeding, driver fatigue, poor training, poor roads engineering, and poor vehicle conditions. Environmental conditions, low levels of awareness on road safety, inadequate enforcement of traffic laws, and inadequate post-crash care further pose risk.

Efforts to improve road safety has to be pursued at all times to ensure the safety of vehicle operators, passagers,, and pedestrians.

In this regard, KEFRI management in collaboration with NTSA staff in September 2020, trained the Road Safety Committee members on road safety measures in a forum held at Baringo Centre.



Steering Committee members: Anne Njango Samuel Kariuki, Ben Mutua, Zakayo Kurui (Chairman), Emanuel Makatiani, Esther Manyeki, Stephen Gitonga, Anastasia Kigo (in absentia)

“The committee has developed road safety annual workplan, customised road safety policy, and other dissemination materials including brochures and reflective stickers to sensitize staff and stakeholders on road safety issues. The initiative is anticipated to reduce the risk of road traffic accidents, as well as the severity and consequences of the accidents, in case they occur,” said Mr. Kurui.

## Webinars

In observing measures to contain COVID 19 virus, KEFRI has limited physical contacts and instead moved meetings and conferences on-line as virtual events to engage stakeholders on various matters of forestry and administrative interests. KEFRI ICT staff, within the Quarter, have facilitated presenters use Live on-live (real time), On demand and Hybrid formats in the following presentations.

### Regreening Africa, UN supported project

Held on 23<sup>rd</sup> April, 2021. Virtual.

Discussion: People and organizations working together towards land restoration guided by evidence from research and other sources. Lessons on monitoring and reporting frameworks & tools in Forest and Landscapes Restoration.

Partners: KFS, KEFRI, Global EverGreening Alliance, World Resources Institute European Union in Kenya, FAO, World Agroforestry - ICRAF, Council of Governors-Kenya, Centre for International Forestry Research (CIFOR).

### Road Safety (RS) Customization

Host KEFRI: held on 19<sup>th</sup> May, 2021. Virtual.

Topic: Introduction to the government initiative to streamline Road Safety across all MDA’s and progress of implementation by KEFRI.

Moderator: Mr. Fred Odhiambo, Senior Administrative Officer, KEFRI

Facilitators: Mr. Koech, NTSA officer and KEFRI’s contact person, Mr. Zakayo Kurui and Ms. Esther Manyeki.

### National Commercialization Tree Improvement Strategy (NCTIS), Virtual.

Held on 11<sup>th</sup> June 2021

Host: KEFRI/Gatsby Africa

Moderator: Dr. Jane Njuguna - Senior Deputy Director Research and Development, KEFRI

Presenter: Dr. Stephen F. Omondi CHERP Deputy Regional Director and Joseph Machua Project Coordinator.

The webinar sought inputs, from stakeholders in commercial forestry in Kenya, on the proposed commercial tree improvement framework to guide the national tree improvement strategy.

### Kenya Commercial Forestry Investment Conference and Expo

Held on 24<sup>th</sup> June 2021, Virtual

Topics 1: Development of bamboo globally

Presenter: Mr. Jayaraman Duarai - director Global Bamboo Programme, INBAR Hqts,

Topic 2: Growth of bamboo development globally,

Presenter: Dr. Selim Reza- Programme Manager, Dutch-Sino-E.Africa Bamboo Development

Programme II, INBAR E. Africa regional Office

Topic 3: Linking farmers to the industry:

Presenter: Ms. Caroline Kariuki, CEO Green Pot Enterprises

## KENYA COMMERCIAL FORESTRY INVESTMENT CONFERENCE & EXPO



### Staff Movement from March to June 2021

Name	P/No.	Date of Exit	Mode of Exit
Elizabeth Mbatha Kania	6019	20 <sup>th</sup> April, 2021	Retirement
Joseph Kipkosgei Lelon	5289	21 <sup>st</sup> April, 2021	Retirement
Mohammed Ahmed Sheikh	6902	1 <sup>st</sup> May, 2021	Retirement
David Ngugi Mwaura	6204	15 <sup>th</sup> May, 2021	Retirement
Stephen Nderu	5901	2 <sup>nd</sup> June, 2021	Retirement

Name	P/No.	Date of Exit	Mode of Exit
Philip Godfrey Odaba	7156	20 <sup>th</sup> May, 2021	Resignation
Suleiman Mogow Mohamed	6970	25 <sup>th</sup> June, 2021	Resignation
<b>Demise</b>			
Agnes Nganga	5138	23 <sup>rd</sup> March, 2021	Death
Jonathan Ng'ang'a Ndungu	6764	10 <sup>th</sup> June, 2021	Death



President Bozkiir visiting KEFRI tree nursery at JMM park



Students from Kenya Forestry College visiting Karura workshop



Part of Mukogodo degraded landscape earmarked for restoration



Community planting mangrove to rehabilitate the coastline

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