

# KEFRI *Newsreel*

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## Message from Kefri Director Dr. Ben Chikamai marking Kefri's silver jubilee and ISO certification



The Kenya Forestry Research Institute was established in 1986 under the science and Technology Act (Chapter 250) to carry out research in forestry and allied natural resources. Over its 25 years of existence, the institute has played a great role in influencing policies on forest resource management.

In order to serve the needs of the forestry sector and the environment as a whole better, KEFRI restructured its research programme by implementing the following strategies:

- Consolidating 17 discipline-oriented divisions into six programmes as contained in Kenya Forests Master Plan;
- Adopting multidisciplinary research approach;
- Focusing on problem oriented research;
- Decentralising research activities to facilitate improved interaction and linkages with the local users;
- Improving facilities in six centres in representative ecological zones of the country;
- Adopting focused capacity building;
- Developing beneficial partnerships;
- Decentralizing dissemination of research findings and seed distribution.

KEFRI has set goals and purpose, vision, mission and Mandate of implementing forestry research and development and in the allied forest resources in the country. Since inception, KEFRI has evolved in conducting research in thematic areas of forestry development through farm forestry, dryland forestry, Natural forests, Industrial plantation, tree seed and technology dissemination & services programmes at Eco-regional centres situated across the country.

The Institute Implements the research agenda through 5-year strategic plans clearly indicating areas of research, scope and projects objectives and targets to attain desired socio-economic outputs.

I am pleased to inform the public that, the technologies are developed at regional research centres specifically to address challenges of forestry and allied resources to the local conditions and therefore the findings are also site targeted and hence relevant. To enable sound management, the Regional centres are equipped with skilled human, appropriate financial, infrastructural and logistical support so as to discharge research outputs appropriately.





In addition, to the 25 achievements stated elsewhere in this supplement, KEFRI has put in place systems of collaboration with both local and international organisations to share research experiences and jointly position ourselves to tackle new emerging challenges such as climate change and preservation of the country's biodiversity.

In order to meet international environment management obligations, KEFRI has also been working hard to achieve ISO 14001: 2004 certification and are now proud announce to our partners, collaborators, contractors, suppliers and public that the Institute is now EMS ISO 14001: 2004 certified.

KEFRI has been preparing for ISO certification since 2007 and has been doing it through an internal ISO team formed in the same year. During the document preparations, KEFRI consulted with experts in this field, and they were instrumental in educating the ISO Core team.

The following is the road to KEFRI's ISO certification:

- In the first two years, the ISO core team carried out Initial Environmental review and appraisal of the institute's facilities, products and services across the country documenting status and areas that require facelift.
- The team identified various aspects and their associated impacts to the environment.
- The team also identified the significant aspects through evaluation criteria stated in the environmental management standard.
- Documents on procedures to mitigate the aspects, objectives and targets and environmental programmes, data form and work instructions were developed.
- Legal and other requirements relevant to KEFRI operations and areas of compliance were identified.
- The Institute appointed Environmental Management

Representative to coordinate and oversee implementation of the different Environmental Management Systems.

- Training was carried out for 34 ISO implementation team in all the regional centres and internal auditors were trained to monitor implementation and recommend corrective or preventive measures where the aspect can have a negative impact.
- We engaged the Kenya Bureau of Standards to verify the process and were finally certified in June 2011.

It is our hope that you will continue to support us in ensuring that we adhere to continually improve the environment.

I would like to pass my most heartfelt gratitude to all partners and stakeholders who have helped us go the extra mile in achieving success in all our programmes. I would like to give a special mention to JICA for their unconditional support over the years. Through your various grants KEFRI has implemented many technical and social programmes focusing on forests and allied natural resources.

The technologies that we have come up with are meant to improve their environmental, social and economic welfare. Always, for new forestry development and products, please contact my office through the respective regional centres. I welcome you to feel part of our success and hope that we shall continue in this fruitful partnership.

Thank you.





## KEFRI marks silver jubilee and ISO certification



Board of Directors Chairman Dr. James Onsando is assisted by a staff member to cut the anniversary cake.

The Kenya Forestry Research Institute (KEFRI) turned 25 last December and also acquired ISO 14001:2004 Environment Management Systems (EMS) certification. The organisation marked the two events in a ceremony officiated by the Minister for Forestry and Wildlife, Dr Noah Wekesa, on December 15, 2011 at KEFRI headquarters Muguga.

The Minister congratulated KEFRI for developing forestry technologies and disseminating its research findings, thus contributing greatly to forestry restoration efforts in Kenya and within the region. Since its inception in 1986, KEFRI has developed in research, infrastructure and human resource to become a recognised institution of forestry research in Africa.

Dr Wekesa urged citizens to plant more trees to increase forest cover from 1.7 per cent to 10 per cent of the total land area. He noted that trade in carbon credits is one way of empowering people to benefit from tree planting initiatives.

"There are many organisations and corporations looking for trade in carbon credit in Africa," he said, adding that this is the time to take advantage of programmes such as the Reducing Emissions from Deforestation and Forest Degradation (REDD) to sell carbon credits to developed countries.

"The Ministry of Forestry and Wildlife is collaborating with organisations offering good payment and also with communities in Mau Forest Complex and other water towers to benefit from these emerging opportunities," said the Minister.

However, he lamented the harassment of farmers trading in wood products harvested on-farm and urged the experts to help in differentiating wood products gathered on-farm and those illegally harvested from natural forests.

The Chairman KEFRI Board Dr James Onsando said KEFRI attained ISO 14001:2004 EMS status in June 2011, after demonstrating high environmental management standards in its operations, facilities and a commitment to maintaining these standards. He congratulated the Institute's management and staff for their continued hard work.

The Deputy Chief of Mission in the Japanese Embassy, Mr Yoichiro Yamanda said, "KEFRI has grown like a tree, with support from the governments of both Kenya and Japan". He praised the government of Japan for supporting forest projects for Arid and Semi Arid Lands in Kenya through the Japan International Cooperation Agency (JICA).

"Japan has worked with Kenya since independence to promote sustainable development. In forestry as in other areas, Japan wishes to remain Kenya's quality partner," said Mr Yamanda, stating that the support has enabled



Forestry and Wildlife Minister Hon. Noah Wekesa (second right) and KEFRI Director Dr. Ben Chikamai (right) visit various displays by some of the Institute's stakeholders.

KEFRI become an authority in social forestry and climate change initiatives.

KEFRI Director Dr Ben Chikamai led the guests through an exhibition showing KEFRI's key achievements within the 25-year period. He thanked the donor community,

development partners, stakeholders and collaborators for supporting KEFRI during the 25 years of its existence.



The Hon. Minister (third right) releases balloons to mark the occasion. On his left is the KEFRI Chairman Dr. James Onsando and KEFRI CEO Dr. Ben Chikamai.





It was a great day of welcoming all during the 25th Anniversary and ISO 140001:2004 celebrations at the Muguga headquarters.



## KEFRI hosts regional climate change course



Forestry and Wildlife Assistant Minister Hon. Josphat Nanok reads the Minister's message during the official opening of the course. On his left is the KEFRI director Dr. Ben Chikamai.

The institute hosted a five-week regional training course on mitigating the negative effects of climate change at the KEFRI headquarters in Muguga on 28<sup>th</sup> October 2011. The course, which was officially opened by the Assistant Minister for Forestry and Wildlife, Hon. Josphat Koli Nanok, provided a forum for promoting regional collaboration as well as building the capacity of participating countries in climate change.

In his address, the Minister observed that 65 percent of the population in sub-Sahara Africa depends directly or indirectly on forests for livelihood. This dependency has continued to exert pressure on scarce natural forests, thus compromising environmental goods and services provided by these resources.

Observed Hon. Nanok: "This course has come at time when natural resources are endangered by climate change, negatively affecting food security and land management in many tropical countries. The impact of global warming includes increased frequency and severity of droughts, forests and soil degradation, drying rivers, increased diseases, flooding and desertification".

Hon. Nanok praised the Government of Japan for the continued assistance even at the time his country was devastated by a Tsunami. He said KEFRI still needs more assistance especially of equipments for the new facilities in Kakamega and Garissa sub-centres.

Both the Governments of Japan and Kenya funded the course while JICA and KEFRI were the implementers. The course, which will run from 2009-2013, has so far trained 44 participants in sub Sahara Africa. In 2011, the course

registered 24 participants representing 16 countries from Eastern, Central and Southern Africa with the newly independent Republic of Southern Sudan represented for the first time.

KEFRI Director Dr Ben Chikamai underscored the role of forestry in attaining food security, reducing poverty and in achieving sustainable development. The sector is particularly vulnerable to climate change and faces significant challenges in meeting increasing demands from rapid population growth.

"However, through improved management practices, forests have many opportunities to contribute to mitigating the effects of climate change, reduction of emissions and carbon sequestration," said Dr Chikamai.

JICA residence representative Mr. Junichi Hanai called on the participants to share both skills and knowledge to enhance development of adaptive measures against climate change. He gave an analogy of a Japanese fishing community that faced fishery and oyster industry closure due to water quality deterioration. However, a tree-planting scheme along the rivers improved the quality of water, consequently saving the industry and considerably increasing seafood production.



KEFRI CEO Dr. Ben Chikamai (standing) addresses course participants during the closing ceremony.

Other guests who attended the occasion were the Kenya Forest Services Deputy Director, Emilio Mugo, Eritrean Ambassador Mr. Beyene Russim, Ambassador Kelebert Nkamani from Zimbabwe and JICA staff Meri Fukai and Mary Kimaru.

During the course, the participants also visited various ecological zones in Kenya to familiarise themselves with challenges facing forests and land management as well as interventions being carried out by various stakeholders.



## New programme and offices launched



The facade of the new facility at Kakamega.

On September 9th, 2011 the Forestry and Wildlife Minister, Hon. Dr. Noah Wekesa, launched the Lake Victoria Basin Eco-Regional Research Programme (LVBRRP) and unveiled the new KEFRI-Kakamega research facility. The twin event whose theme was "Forestry Research for Sustainable Livelihoods and Environmental Conservation Towards Achieving Vision 2030" was held at Lurambi in Kakamega County.

Speaking during the event the Minister noted that achieving 10 percent forest cover for the country will be impossible without appropriate multi-sectoral interventions since 80 percent of Kenya's land is either arid or semi arid.

He called on farmers to plant fast growing trees as the demand for wood-fuel energy is rising. However, he asked farmers to seek advice from tree experts in order to achieve the desired results.

Said the Minister: "The two events are milestone both to KEFRI as well as the Ministry. Forestry research is important in development, improving livelihoods as well as fostering healthy environment", adding that increased tree cover would also increase the supply of wood and non-wood forest products for both domestic and commercial use.

### Background

Implementation of the LVBRRP was made possible through the collaboration of partners from both government and non-governmental organisations with a focus on the entire region. The choice was ideal as the area is richly

endowed with natural resources coupled with favourable economic, cultural and political conditions.

KEFRI's partners and collaborators include; the Kenya Forest Service (KFS), Kenya Wildlife Service (KWS), Kenya Agricultural Research Institute, National Museums of Kenya (NMK), Kenya Marine Fisheries Research Institute and National Environment Management Authority (NEMA). Others are both local and international non-governmental organizations like the World Agroforestry Council (ICRAF), Tropical Soil Biology and Fertility (TSBF), and Nature Kenya.

The launch of the programme is a milestone in offering solutions to the challenges faced in the management of several forestry and allied natural resources in the region. Lake Victoria basin's eco-system includes tropical woodlands, wetlands, urban eco-systems and water towers that host many indigenous plants species and animals.

In his remarks KEFRI Director, Dr. Ben Chikamai, noted that through its fourth five years Strategic Plan, (2008-2012), KEFRI realigned its research objectives with the Government's Vision 2030 blue print.

"This plan revolves around conservation of natural forests, increment of forest cover, poverty alleviation and promotion of forest based industries", he stated.

KEFRI has adopted the eco-region based approach in implementing its research mandate in cognizance of the country's diverse and distinct forest resources. The launch of LVBRRP follows the successful launch of the Coast Eco-Regional Research Programme, which was rolled out in September 2009.

### Challenges

The Director noted that key among the challenges facing forest development are rapid population growth leading to forest degradation and global warming.

Speaking at the occasion the Permanent Secretary, Ministry of Forestry and Wildlife, Mr. M.A.M Wa-mwachai, observed that greenhouse gases were responsible for climate change and depletion of the ozone layer. He said that the necessary measures must be adopted urgently in order to mitigate the effects of this phenomenon.

### Exhibitions

During the occasion KEFRI showcased its technologies in both propagation and production. Bamboo products on display included armchairs, tables, mats and fancy



items. *Mondia whytei* a popular non-wood product due to its flavoured roots was also exhibited. Indeed, 15,000 farmers in Kakamega County have planted *mondia whytei* seedlings.

Tree seeds for both indigenous and exotic tree species were displayed. Various publications were displayed as one among the methods of technology transfer and dissemination of research findings.

Collaborating institutions that attended the occasion and showcased their technologies included:

**Kakamega Education Programme** - Concerned with conservation, creating awareness of the Kakamega forest, tour guiding and management of bandas.

**Buteyo Miti Park** - A project started in 1969 on a 132-hectare plot with trees dating back to about 300 years. Focus on preservation of indigenous trees, soil and underground water protection, and conservation of the forest as a source of herbal medicine.

**African Christian Organisation** - A project started in 2008 whose aim is to impart knowledge to farmers on various technologies such as the use of biogas from agricultural waste, use of briquettes, improved cooking stoves for energy conservation and reduction of indoor air pollution.

Others included a butterfly project, KFS, KWS, NMK, Nature Kenya and Masinde Muliro University.

### Minister's Maragoli Hills visit

Before launching the programme the Minister visited the degraded Maragoli hills reserve and witnessed the ongoing reforestation trials. The ongoing rehabilitation interventions were put in place by KEFRI scientists in collaboration with KFS, Water Resource Management Authority, NEMA, International Centre for Insect Physiology and Ecology, KWS and Resource Projects Kenya.

## Tribute to the late Prof Wangari Maathai



KEFRI staff and stakeholders in a tree planting event at Kahuho in Kiambu County.

The life and times of the late Prof. Wangari Maathai comprised of two major phases. The first is a story of simple village women with whom she planted trees across the country. The second involves leaders of this world who sought counsel and feted her brilliance and commitment in environmental conservation. Born in 1940, Prof Wangari Maathai has achieved a lot in her life.

Her efforts in forest conservation were recognised all over the world culminating to her award of the Nobel Peace prize in 2004, the first ever African woman to receive the rare honour. In Kenya Prof. Maathai will forever be remembered for the way she solely led the fight for preservation of Nairobi's Uhuru Park when the then government of President Daniel arap Moi wanted to put up a 60-storey building in 1989 on this public open space. She would later lead a similar fight to protect the excision of the dense Karura Forest which is located in Kiambu on the outskirts of Nairobi.

Prof. Maathai had a lot of passion for natural forests and was among the first to visualise the negative effects of environmental degradation in Kenya. One notable quote she used to refer to is, "Nature is so unforgiving, if you destroy nature, it will equally destroy you."

True to her words, Kenya is now experiencing some of the negative effects of climate change due to continued environmental destruction. Prof Maathai used the Green Belt Movement (GBM), which she started in 1977, as the vehicle for tree planting at the grass root level.



### Environmental conflicts

The values and virtues of Prof. Wangari Maathai were evident during her burial ceremony. She chose to be cremated in a simple casket made of bamboo and water hyacinth. True to the end, she was against the idea of burying bodies with wooden caskets since this increases the large scale cutting of trees.

During her life Prof. Maathai demonstrated how environmental conflicts escalate global conflicts and how wise use of the same can promote world peace. Kenya has witnessed several cases of conflicts arising from natural resource use.

Some of the recent examples are the conflicts in Mau conservation areas and those between pastoralists and farmers in Mai Mahiu. As a way of contributing to peaceful coexistence among communalities, GBM has spearheaded peace talks focusing on the use of joint forest resources in conflict resolution. The concept has further been developed into WMI, which is a joint venture between the University of Nairobi and GBM.

Kenya Forestry Research Institute (KEFRI), WMI, University of Nairobi and University of Copenhagen have collaborated in a joint proposal that has received funding from Danida. The project, called "Stabilising Kenya by solving natural resource conflict" aims at using forestry related issues in Mau conservancy as the springboard to solving community conflicts within the region. KEFRI shares in the values of the late Prof Wangari Maathai and through this project will contribute towards sustainable natural resource use and enhanced peace within the area.

### Livelihoods

Though Prof Maathai is gone, there are concerted efforts to ensure that her work on environment protection and tree planting continues. One such initiative which was started a day before her cremation calls upon institutions, organisations and individuals to plant 71 trees equivalent to her years and commitment to take care of them.

This will contribute to increased forest cover in the country, which will in turn mitigate against the effects of climate change. The only way we can honor Prof. Maathai is planting trees and promoting the values she stood for. This will in turn contribute to a better environment, health and livelihoods for communities, in addition to enhanced peaceful coexistence among them. That way we will ensure that her memory lives on and contributes to a better world.

The KEFRI Muguga Centre in collaboration with Kamuguga Water project held a joint tree planting exercise on October 28th, 2011 at the Guthithima community land near Kahuho. The event was held in remembrance of environmentalist Hon. Prof. Wangari Maathai. About 1600 seedlings of various indigenous tree species were planted.

A large delegation of partner institutions, government departments, students, community groups and area public administration attended the function. In emulating Prof Maathai, a student from Serene Cottage School Miss Margaret Wangari Munyua kicked off the event by planting *Pittosporum lanatum* Hutch, an indigenous tree known locally as Munyamati in Kikuyu.



KEFRI staff members walking the talk.

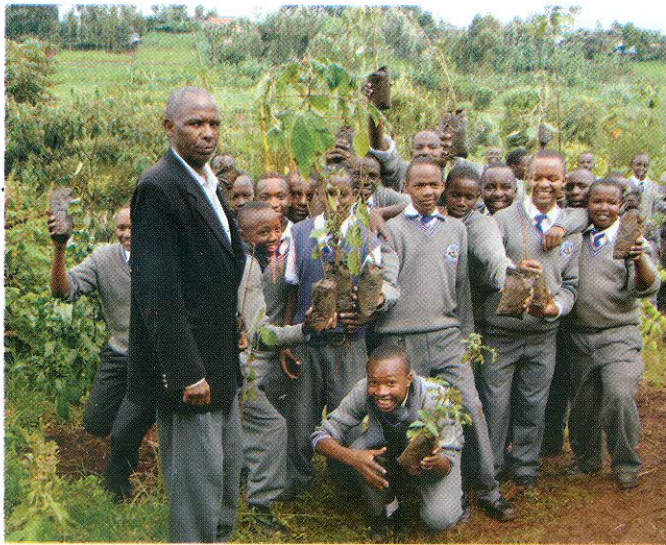
Kabete District Officer Ms. Carolyne Imaya encouraged the community to plant trees on public land as one of the best methods of protecting and stopping grabbing of such lands. She praised the Kahuho community, KEFRI and partners for demonstrating their commitment in conserving the environment.

"As we remember Nobel laureate and her initiatives in environmental conservation there is need to carry her mantle higher by planting more trees on farms as well as on the degraded forests," said Ms Imaya.

She noted that tree planting will improve the community's economy through access to clean water and people living in a clean and healthy environment.

KEFRI has executed successful tree planting campaigns across the country in concerted national efforts of attaining.





Mr. Mutula, an environmental teacher at Kahuho High School leads students in tree planting.

10 percent forest cover by year 2030. Trees provide many benefits among them food security, fodder for animals, homes for birds, soil erosion control and mitigating climate change as they get rid of carbon dioxide (a major greenhouse gas) in the process of releasing oxygen.

Also during the event KEFRI staff taught the area community members and school pupils technologies of tree planting and management practices. The community also benefited from free tree seedlings for planting on their farms.

### About Guthithima site

Guthithima water catchment areas which was initially a swamp lying on riparian land has been gradually encroached by people, thus threatening the only source of clean water in the area. It is hoped that planting trees will protect the remaining portion of the land.



Community women spearhead initiatives aimed at environmental conservation.

### A big honour for KEFRI



KEFRI staff strike a pose after winning several trophies.

In the 2011 Nairobi International Trade Fair which took place from September 26 to October 2 at Jamhuri Park, KEFRI confirmed its ISO 14001:2004 Environmental Management System (EMS) certification after being awarded first position for the best stand demonstrating applications of environmental and quality standards.

His Excellency the President Hon. Mwai Kibaki awarded the trophy to KEFRI during the official opening ceremony held on September 30th. In addition, KEFRI received certificates for third positions in the categories of the best stand in Research and Development Projects, as well as being the best Agricultural Based Statutory Board.

### Products

Trade fairs have become a good platform for marketing agricultural goods and services as well as technologies. Under the theme 'Driving Agribusiness in Attaining Food Sufficiency and Vision 2030', KEFRI's exhibitions included wood and non-wood products and innovations geared towards improving livelihoods and driving Kenya's commerce and agricultural sector.

Innovation and technologies ranging from processing tree seeds, products from fruits of indigenous tree species like the Baobab and Tamarindus indica, herbal products and fancy items made from value added timber waste attracted huge attention from visitors who toured the stand.

Quality tree seeds are the foundation both in increasing and achieving 10 per cent forest cover by year 2030. Kenya Forestry Seed Programme displayed affordable packaged tree seeds. Farmers and other stakeholders in





Some of the hundreds of visitors who visited the KEFRI stand at the Jamhuri showground.

tree production were encouraged to buy certified tree seeds which not only increase production but also mature early and produce disease tolerant products. The public were also made aware of availability of tree seeds from stockists distributed countrywide.

KEFRI is involved in research on threatened tree species such as *Osyris lanceolata*. Several techniques of vegetative propagation for tree improvement, domestication and production of quality planting materials were displayed.

### Wood alternative

Introduction of fast growing trees species like Bamboo is inevitable in spearheading the projected forest cover by 2030. Bamboo is a fast growing resource, matures within three years and thus an ideal wood alternative. It is useful in soil erosion control, conservation of water catchments areas, aesthetics, making furniture's and assorted fancy items. All these were part of KEFRI's demonstration.

The Nairobi Agricultural Show began in 1901 when the Agricultural and Horticultural society was founded in the

city. The show became the Nairobi International Trade Fair in the year 2000 in order to give an opportunity to local and international exhibitors to promote their agricultural products and services. In 2008, KEFRI acquired a stand of its own and has since participated in the trade fair winning certificates in various categories.



Samples of KEFRI's high quality value added wood products made at the Karura Forest Products Research Centre.



# MORE THAN WORDS CAN SAY!



The revamped KEFRI Choir set the mood for the day during the 25th anniversary celebrations.



Some of the KEFRI 2011 Nairobi International Show committee members show off the positions awarded.



KEFRI Director Dr. Ben Chikamai is offered a piece of the 25th Anniversary cake.



Forestry and Wildlife Minister Hon. Noah Wekesa (third right) is taken through exhibitions marking KEFRI's its 25th anniversary.



Forestry and Wildlife Assistant Minister Hon. Josphat Nanok cuts a cake during the end of the regional climate change course.



Some of the participants during the regional climate change course.



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