

Vision

To be a world-class Environmental Authority that ensures a clean and healthy environment for all.

Mission

To safeguard, restore and enhance the quality of the environment through supervision and co-ordination of all matters relating to environmental activities in Kenya.

Mandate

To exercise general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of the Government in the implementation of all policies relating to the environment.

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CONTENTS

Page 4
Page 9
Page 12
rage 12

Page 15

Editorial2
NEMA Cracks Down on Noise in Muthurwa Market3
NEMA Celebrates ISO 9001:2008 Certification and New Logo Launch4
State of Environment (SoE) report released6
Kenya hosts 1st Regional Centre of Expertise Conference
Outcomes of Cop 17: The Durban Package8
NEMA Launches I-Call Project9
Five projects awarded Global Environment Facility (GEF) Funds10
About Rio+20: Rio+20 the future we want11
Kenya Finalizes Country's Position Paper to Rio+ 2012
Pictorial14-15
Commemoration of World Wetlands Day 201216
Kenya joins other nations in marking World Wetlands Day17
NEMA to develop wetland monitoring and assessement strategy for Kenya18
NEMA Particapates in The 2011 Nairobi Trade Fair20
NEMA risk management policy21
The dying Lake Kamnarock22
NEMA board Uganda visits NEMA Kenya24
KARA Hosts NEMA and City Planning26
Tribute to The Late Hop, John N. Michuki 28

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EDITOR'S WORD

Welcome to another exciting edition of the NEMA magazine.

In February 2012 the Authority joined the entire country to mourn the death of the late Hon. John Michuki the Minister for Environment and Mineral Resources. So in this issue NEMA pays great tribute the statesman that he was.

Many environmental conferences and meetings are held globally. In particular the World is gearing for the Rio+20 Conference. You may be asking yourself what the conference is all about. Flip through this edition to this article and learn more about it.

Cop 17 is another meeting that was held. Read about its relation to the Kyoto Protocal, its key outcomes and the anticipated effect of this on the reduction of green house gases.

This edition also features NEMA's rebranding initiatives Peruse the magazine to find out what these initiatives are. Noise Perpetrators are warned of violating the noise regulation as they face imprisonment, paying a fine or their equipment being confiscated.

The 2010 State of the Environment Report has been launched. This report forms the basis for the preparation of operational sector policies, enhancement of the integration of environmental concerns into development processes and preparation of environmental action plans. A full copy of this can be accessed from the NEMA website at www.nema. go.ke.

The country's wetlands are threatened by various challenges such as pollution, land use changes, invasive species among others. This edition highlights the development of strategies for monitoring and assessing the status and trends of wetlands countrywide with a view to ensure there sustainability.

NEMA Uganda Board members and senior management were in Kenya for a bench marking visit. Cross cutting issues affecting both Authorities were discussed at a meeting. The article highlighted in this edition on this visit is a must read as it is very enlightening.

Many more environmental articles apart from the above are featured in this magazine and so I welcome you to read them. I also welcome your feedback and articles and wish you an enjoyable read.

Jacqueline Marita

NEMA Cracks down on Noise in Muthurwa Market

By Morton Saulo

The National Environmental Management Authority (NEMA) arrested 8 people in Nairobi for flouting laws on noise pollution. Equipment comprising of amplifiers, speakers (some whose size was one metre high and 50cms wide), dvds and dvd players was also seized.

Following the arrest the Nairobi Provincial Director of Environment Mr. Titus Simiyu has said that the Authority will not relent in its quest to ensure noise regulations are adhered to. Mr. Simiyu further warned that any violators of the Noise Regulations will face the law.

Speaking to the media after a crackdown in Muthurwa Market Mr. Simiyu said NEMA has put in place plans to ensure that sanity prevails in Nairobi and its environs. "We will not allow noise makers to interfere with the peace and tranquility of Nairobi. "The arrested suspects were detained at Langata police station and arraigned in court. Equipment confiscated from the suspects includes ten large



Arrested violators of the Noise Regulation arrive at a Police station to be charged. An exhibit of a loud speaker is mounted on top of the vehicle.

speakers, amplifiers and DVD players.

In 2009 the Environment Minister Hon. John Michuki gazettedthe Noise and Excessive Vibration Pollution Control Regulations, 2009. NEMA

NEMA has put in place plans to ensure that sanity prevails in Nairobi and its environs. works closely with provincial administration to ensure that noise pollution is minimized. Area chiefs and district officers play a significant role in assisting NEMA inspectors to identify violators of noise regulations.

During the arrests Mr. Simiyu stated that the Authority had identified other major hot spots on which it would conduct crackdowns. The hot spots include routes plied by public service vehicles. He also noted that Tom Mboya and Moi Avenue would also be inspected.

NEMA Celebrates ISO 9001 Certification and New Logo

By Jacqueline Marita

■ EMA was declared ISO 9008:2008 certified on 3rd October 2011. ISO 9001:2008 is a set of universally understood and accepted quality practices and principles for Quality Systems Management at improving service delivery in organizations. The ISO certification process was borne out of a desire by the NEMA Board of management to implement a management system that conforms to international standards as well as meets the requirements of Public Service Reforms.

17th November 2011 NFMA staff, stakeholders, representatives Government ministries, state corporations, representatives from the private sector among others gathered at the Kenyatta International Conference Centre to celebrate with NEMA the certification and launching of new NEMA logo. During the launch members of the public were taken through the ISO certification process. The public was informed that the process begun with the NEMA Management and staff being taken through an 9001:2008 awareness training programme by consultants. Internal auditors were identified and trained on documentation of all quality processes in accordance with required standards. All departments implemented and conformed to the quality processes as documented. External and NEMA internal auditors carried out audits of the quality management system. Areas of non conformities to the standard were identified and corrective actions implemented which resulted in the certification.

Members of the public were also



(Centre) Mr. Ali Mohammed, Permanent Secretary Ministry of Environment and Mineral Resources, (right) Dr. Edwin Muinga, Member NEMA Board of Management, (left) Dr. Ayub Macharia, NEMA Ag. Director General display the NEMA ISO 9001:2008 certificate.

informed that the new logo highlights NEMA's drive to attain world-class standards, professionalism and quality service delivery.

The new logo composition comprises of a butterfly, leaf and a hand cradling the world. The entire composition highlights three important colours which represent the environment that is green (plant and animal life), blue

(water) and brown (earth where all natural resources are found). The composition also signifies the fact that NEMA acts locally and thinks global. This illustrates NEMA's drive to attain world-class standards.

The leaf represents plant life (flora) whereas the butterfly represents the animal kingdom (fauna). The butterfly represents the fragility of the environment

:2008 Launch





Permanent Secretary Mr Ali D. Mohammed (right) unveils the new NEMA logo. Looking on is Ag. Director General NEMA Dr. Ayub Macharia.



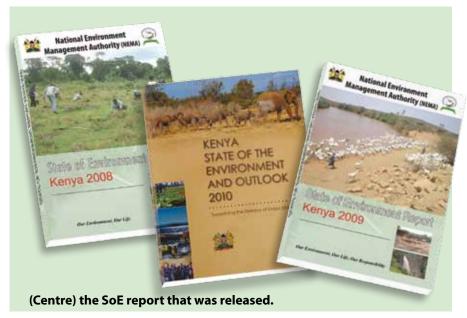
Pupils from Musa Gitau Primary School perform a verse during the launch.

which needs to be protected. The composition illustrates the interdependence of animals, plants and water on one another for co-existence. The hand is shown cradling the environment in a caring embrace. This illustrates that we (humans) are all expected to play an important role in taking care of the environment.

Following the ISO 9001:2008 certification, NEMA is better positioned to deliver on its

strategic initiatives through commitment to continued excellence in service delivery to its customers. This is an important step as it will not only ensure quality service provision but enrich the Authority's efforts geared towards progressive realization of a clean and healthy environment for all.

During the launch members of the public were also reminded of the commitment by the NEMA Board of management to put constant checks on NEMA's processes by measuring performance, assessing opportunities for improvement and instituting necessary action to ensure that the Authority confirms to stipulated customer servicestandards, henceenabling it to maintain the certification and quality customer standards. With the certification members of the public are set to receive enhanced quality services from NEMA.



State of Environment (SoE) report released

By Morton Saulo

The 2010 Kenya State of Environment (SoE) and outlook report has been released. The report highlights progress made towards sustainable development. It was developed in fulfillment of Section 9 (2) of the Environmental Management Co-ordination Act 1999 which mandates NEMA to prepare the report for submission to the National Assembly.

The report provides timely, accurate and relevant information on various facets of the country's environment in order to ensure sustainable use. It also provides a basis for efforts to restore environmental integrity. The SoE further aims to capture and present accurate and timely information on the environment and natural resources that is relevant to decision making. It also forms the basis for the preparation of operational sector policies, enhancement of the integration of environmental concerns into the development processes, and preparation of environmental action plans.

The report provides timely, accurate and relevant information on various facets of the country's environment in order to ensure sustainable use

The report is divided into four parts, the first part being environment, people and development. The part consists of discussions on environment, economic development, social economic issues including poverty, gender and climate change in Kenya. Part two is an analysis of the state of the environment. The chapter contains an integrated assessment of biodiversity, forests, and woodlands, land agriculture, and livestock. It further contains an analysis of water, coastal and marine resources, health and environment. Under each theme, opportunities for sustainably deriving benefits from resource base and or reversing environmental degradation have been identified. Data on environmental evaluation of the resources has been included. The purpose of this is to emphasize the need to safe guard and improve the asset base of ecosystems, economic goods and services as well as social value/services at the national and community/household levels.

The third part of the report is about emerging issues. These are concerns that are exerting an increased impact on the environment and people. These emerging issues cover new environmental phenomena or old issues analyzed in new perspectives. Some of the emerging issues are categorized as those that are external to the country but pose a potential future threat.

The last part of the report is Environmental Governance. This part consists of an analysis of the environmental outlook from 2010 to 2030 and uses the aspirations of Kenya Vision 2030 as targets to measure the impact of environmental actions over this period.

The report concludes by providing a brief treatment of various policy options for addressing the myriad environmental challenges and opportunities tracked into the future in the scenario settings.

The preparation of the report was guided by the drivers, pressures, state, impact and resources (DP-SIR) and opportunities frameworks. These frameworks were selected because of their potential to address the delicate nexus between environment and development and the impacts of environmental changes on people's livelihoods. A participatory approach was also adopted in preparing the SoE in recognition of the obvious benefits that accrue from drawing on the expertise of a broad base of stakeholders.

The report was produced through technical and financial assistance from the United Nations Environmental Programme (UNEP).



An exhibitor at the RCE conference explains his stove product to Mr. Ali D. Mohammed the Permanent Secretary Ministry of Environment and Mineral Resources (left) and Dr. Ayub Macharia Ag. Director General NEMA (second right).

Kenya hosts 1st Regional Centres of **Expertise Conference**

By Agnes Kamiri

Kenya hosted her first ever National Regional Centre's of Expertise (RCE) conference on Education and Sustainable Development (ESD). The conference-cum-exhibition ran under the theme 'RCEs-Turning a Green Leaf Towards Sustainability' between 15th and 16th November 2011 at the Kenyatta International Conference Centre. The event was graced by a guest speaker Mr. Basil from RCE Mbarara from Uganda as well as well as other renowned speakers from within the country.

The Conference brought together 8 RCEs from across the country.

Three of the RCE's are registered by the United Nations University and five are in the process of being registered. The RCE's in the country include RCE Mau complex hosted by Egerton University, RCE Greater Nairobi hosted by Kenyatta University, RCE Kakamega, hosted by Masinde Muliro University, RCE Pwani, hosted by Pwani University College and RCE Upper Eastern, hosted by Kenya Methodist University. Others include RCE Nyanza hosted by Maseno University, RCE Narok, hosted by Narok University College and RCE Upper Rift, hosted by Moi University.

The conference featured exhibi-

tions ranging from herbal remedies, recycled products, energy efficient solutions, and educational institutions. The conference marks an important milestone in Education for Sustainable Development (ESD) undertakings in Kenya.

Some of the recommendations from the conference include: production of an ESD country report for Kenya to integrate progress in realization of ESD goals, development of publications on ESD, initiation of a peer-review RCE journal, development of a communication strategy for the Kenya ESD implementation strategy and an initiation of an ESD awards scheme for Kenya.

Outcomes of Cop 17: The Durban Package

By Dr. Anne Omambia

COP 17

- COP is an acronym for Conference of Parties (COP).
- Parties refer to the States that have signed on to the United Nations Framework Convention on Climate Change (UN-FCCC).
- The parties have been meeting annually in COP meetings to assess progress made in dealing with climate change since 1995.
- COP 17 was the 17th Conference that took place at the end of 2011 in Durban South Africa.

The Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the UNFCCC.

- It sets binding targets for 37 industrialized countries and the European Union for reducing greenhouse gas emissions.
- Using the emissions inventory for the year 1990
 as a basis, reductions
 amounting to an average of 5% over the five year period 2008-2012 is
 expected.
- The major difference between the Protocol and the UNFCCC is that while the UNFCCC encourages industrialized countries to stabilize greenhouse gas emissions (GHG's), the Protocol commits them to do so.



Participants during climate talks, in Durban. file photo

The following are the key out puts of the Durban Cop 17 meeting:

- 1. The future of the Kyoto Protocol: The initiation of a second commitment period (starting January, 2013) to the Kyoto Protocol (KP) was agreed in Durban. The European Union (EU) used the extension of the Kyoto Protocol as a bargaining chip to get the long term framework going. As a result of this decision, the EU, plus a number of other developed countries, will now move ahead with Kyoto Protocol 2(KP2).
- 2. A Roadmap to a single new legal instrument—the "Durban Platform": in the four years prior to Durban, governments have been engaged in negotiations on a long-term architecture for climate change beyond the second commitment period of the Kyoto Protocol with the aim to involve all countries in a binding emission reduction agreement. In Durban this was formalised in an agreement to put in place a new, single legal instrument to limit greenhouse emissions that will come into force in 2020. While delayed, this action is welcomed and puts the world back on track. For the first time a legally binding agreement under the climate change convention will not differentiate between developed and developing countries in the need to undertake mitigation actions.
- 3. Implementation of the Cancun Agreements: The implementation of the Cancun Agreements was adopted a part of the Durban package. The outcome has decisions on shared vision, mitigation, adaptation, finance, technology transfer and capacity building.
- The Green Climate Fund (GCF): following an intergovernmental design process in 2011, Durban launched the GCF as a new fund under the Convention. Agreement on the GCF is a significant development for the international climate and development finance architecture.



Morton Saulo (right) of NEMA explains the functions of i-call during the Eye On Earth Summit 2011 in Abu Dhabi.

NEMA launches i-call project

By Morton Saulo

NEMA has launched a mobile phone based e-learning project/platform to educate the public on environmental matters. The platform dubbed I-call does not require internet connection and will be available for free to anyone with access to a mobile phone.

It uses mobile phone technology to disseminate information and messages to the public on various issues geared towards achieving a clean and healthy environment. It features an interactive storytelling mechanism that will lead to the development of an environment conservation culture.

During the launch of I-call NEMA's Ag. Director of Education Ms. Betty Nzioka said ignorance is largely to blame for environmental degradation. "We have noted that mobile phones have a higher rate of penetration, therefore, we can use them to educate people," she said.

Mr. Arndt Bubenzer the managing director Common Sense E-Learning from Austria one of the partners of the I-Call project said the company had opted to use voice connection rather than

data because of its availability. "Because GSM network is most available and everyone does not have internet connection, we opted for the voice to mass the message," stated Mr. Bubenzer.

The I-Call number is 0800 636 200 and 020 360 2600. The project is a partnership that has brought together I-Call consultants, Common Sense E-Learning consultants, NEMA, Safaricom, the Ministry of Environment and Mineral Resources, United Nations Environmental Programme, Global e-Schools and Communities Initiative (GeSCI).



Participants at the GEF National Portfolio Formulation Exercise Workshop.

Five projects awarded Global Environment Facility (GEF) funds

By Dr. Andrew Kwonyike

lobal Environment Facility (GEF) is an independent financial organization which was established to forge international cooperation. It provides grants to developing countries and countries with economies in projects transition for that biodiversity, address international waters, change, land degradation, the ozone layer and persistent organic pollutants. Others include; capacity building and Small Grants Program (SGP). These projects benefit the global environment, linking local, national, and global challenges environmental and promoting sustainable livelihoods. The Facility unites 182 member governments worldwide that work

partnership with international institutions, nongovernmental organizations, and the private sector to address global environmental issues.

GEF funded Five project concepts were approved for Kenya in 2011 by a National Steering Committee and other stakeholders in a National Portfolio Formulation Exercise. The exercise is a new approach which was introduced in 2010 by the Facility as a requirement for the access to resources on three focal areas namely Biodiversity, Climate Change Degradation.

In the new approach referred to as Strategy for Transparent Allocation of Resources (STAR) financial resources are allocated to countries in a transparent and consistent manner based on global environmental priorities, country capacity, policies and practices relevant to successful implementation of GEF projects. As a result, Kenya was allocated US\$ 18.21m and distributed as follows US\$ 8.95m for Biodiversity, 5.0m for Climate Change and 4.26m for Land Degradation.

The five projects that were selected during the national exercise and which met the minimum requirements were:

- a) Mainstreaming Sustainable Forest Management to enhance payment of ecosystem services and support for Reducing Emissions from Deforestation and Forest degradation (REDD) + Readiness activities in Kenya.
- b) Sustainable Charcoal Production and Bio-



energy Technologies to Reduce Greenhouse Gas (GHG) Emissions and promote Income Generating Activities for livelihood improvement in arid and Semi-Arid lands of Kenya.

- c) Scaling up Sustainable Land Management and agro-biodiversity conservation to reduce environmental degradation in small scale agriculture in Western Kenya.
- d) Sustainable Conversion of Waste into clean Energy and other Resources and
- e) Enhancing Wildlife Conservation in the Productive Southern Kenya Rangelands: Institutional Capacity, Ecological Viability and Economic Diversification

About Rio+20: Rio+20 the future we want Background

The United Nations Conference on Sustainable Development (UNCSD) is being organized in pursuance of General Assembly Resolution 64/236 (A/RES/64/236). Heads of states and governments among other representatives are expected to attend.

What is Rio+20?

An Earth summit was held in 1992 in Rio wherein countries adopted Agenda 21 as a blueprint to rethink economic growth, advance social equity and ensure environmental protection. Twenty years on, the United Nations is again bringing together governments, international institutions and major groups to agree on a range of measures that can reduce poverty while promoting decent jobs, clean energy and a more sustainable and fair use of natural resources.

Rio+20 Conference is expected to take place in Brazil on 20-22 June 2012 to mark the 20th anniversary of the 1992 United Nations Conference on Environment and Development (UNCED). The Conference is expected to provide a historic opportunity to define pathways to a safer, more equitable, cleaner, greener and more prosperous world for all. Rio+20 is further meant to provide a chance to move away from business as usual and to act to end poverty, address environmental destruction and build a bridge to the future.

Why do we need Rio+20?

The world now has a population of 7 billion people. It is estimated that by 2050, this number is expected to be 9 billion. Many of the world's people currently live on \$1.25 a day or less. Others do not have access to electricity or proper sanitation facilities. Furthermore, many go hungry every day. Greenhouse gas emissions continue to rise thus increasing the effects of climate change.

If we are to leave a habitable world to current and future generations, sustainable development challenges such as economic, social and environmental need to be addressed now. If not addressed, we will incur far greater costs in the future, including more poverty and instability, and a degraded environment. Rio+20 Conference will thus provide an opportunity to think globally, and act locally to secure our common future.

Continued on page 13

Solar panels.



Rain water harvesting.

Kenya finalizes

By Dr. Andrew Kwonyike

The country is on its final stages of the preparation of its position paper on RIO+ 20. The country's position paper is to be presented at Rio de Janeiro, Brazil, on June 20-22, 2012. The objectives of the Conference are to secure renewed political commitments for sustainable development, assessing progress and identifying remaining gaps in the implementation of the outcomes of the major summits on sustainable development. The conference will also address new and emerging challenges. The conference will further focus on how to build a Green Economy to achieve sustainable development and eradicate poverty.

Prepared by NEMA along with other stakeholders from relevant government ministries and departments the country position paper proposes the strengthening, consolidating and transforming of United Nations Environment



country's position paper to RIO+ 20

Continued from page 11

Rio+20 will tackle the following issues:

- Making the transition to greener economies while focusing on poverty eradication.
- Protecting oceans from overfishing, the destruction of marine ecosystems and adverse effects of climate change.
- Making cities more liveable and more efficient.
- Broadening the use of renewable energy sources that can significantly lower carbon emissions, indoor and outdoor pollution, while promoting economic growth.
- Better managing forests to provide a broad range of benefits
- Improving the way we conserve and manage our water resources, in order to promote development and guard against desertification.

In Kenya, innovative finance mechanisms have stimulated new investments in renewable energy sources, including solar, wind, small hydro, biogas and municipal waste energy, generating income and employment.

Adopted from Rio+20 United Nations Conference on Sustainable Development. The Future We Want www.uncsd2012.org

Programme (UNEP) from a programme in to an international specialized organization such as the World Environment Organization or United Nations Environment Organization based in Nairobi, Kenya.

The paper also proposes universal membership to the organization which should also enjoy stable and predictable funding. It recommends that there should be financial burdens on member states especially developing countries. It also calls strengthened for decentralized offices.

From the RIO+ 20 the country expects political messages

a n d commitment t o sustainable development, universally agreed, time bound, results oriented sustainable development goals (SDGs) that embrace but q o beyond the Millennium Development Goals (MDGs). The country also expects agreement on the development of comprehensive national development strategies with monitoring m e c h a n i s m s governments, private sector and civil society to ensure implementation of the outcomes of the summit. It also proposes for there to be a clear and consensus definition of Green Economy.



Pictorial



NEMA Director General Professor Geoffrey Wahungu plants a tree to mark the 2012 World Environment Day celebrations at Bamburi Haller park.



Assistant Minister for Environment & Mineral Resource Hon. Ramadhan Kajembe (centre), NEMA Director General Prof. Geoffrey Wahungu (Right) and Snr. Deputy Secretary Ben Mugambi visit an exhibition stand during the 2012 WED in Mombasa.



Prof. Geoffrey Wahungu flags off 2012 WED day walk in Mombasa. On the left is the Director Education Dr. Ayub Macharia.



Prof. Geoffrey Wahungu welcomes ister Hon. Chirau Ali Makwere who



Environment and Mineral Resource off newly acquired county inspecti NEMA Prof. Geoffrey Wahungu (lef



Prof. Geoffrey Wahungu receives I-Bubenzer of common sense consul Nzioka.



Environment and Mineral Resources Minen he paid NEMA a courtesy call.



es Minister Hon Chirau Ali Makwere flags on vehicles. Looking on is Director General t) and other NEMA and ministry officials.



call mobile mentor award from Andt tants. To his right is Vicky Onderi and Betty



Environment and Mineral Resources Minister Hon. Chirau Ali Makwere waters a tree that he has planted at NEMA headquarters in Nairobi.



NEMA compliance officer George Oyoo (2nd right) explains to Environment Minister Chirau Makwere how a noise meter works. On the extreme left is DG NEMA Prof. Wahungu, Benjamin Langwen director compliance (2nd left) and Dr. Kennedy Ondimu (third right).

Environment
Minister Hon Chirau Ali Makwere
signs the visitors
book at the NEMA
Director General's
office. Looking on
is NEMA Director
General Prof. Geoffrey Wahungu.



Commemoration of World Wetlands Day 2012



Assistant Minister of Environment Hon. Rev. Julius Murgor, Environment Secretary Dr. Alice Kaudia, Ag. Director General NEMA Dr. Ayub Macharia and other officials survey the map of Singida wetlands during the 2012 World Environment Day Commemoration.

By Morton Saulo

very year, the National Environment Management Authority (NEMA) co-coordinates the commemoration of World Wetlands Day (WWD) on February 2. This date marks the adoption of Ramsar convention on wetlands. Kenya signed this agreement in 1990.

The 2012 WWD theme was "Wetlands and Tourism", aimed at raising public awareness and consciousness on the link between wetlands tourism and wetlands management. The country has several wetlands which have contributed immensely to the tourism sector due to their unique biodiversity, which makes a key part of any Kenyan

tourism experience.

These include the Ramsar sites (Lakes Nakuru, Naivasha, Baringo, Elementaita, Bogoria) and rivers such as the Mara, Ewaso Ngiro North and South; Swamps including; Shompole, Lorian and Kimana as well as marine wetlands that include coral reefs, mangrove, seagrass beds and sandy beaches on the shores of the Indian Ocean that attract both local and International tourists.

According to conservationists, promoting sustainable tourism in wetlands can significantly contribute to improved livelihoods of the people using them as a resource. "Solution to poverty reduction and improved livelihood can be real-

ized by embracing the wise use principle," says Water and Wetlands Programme Officer at International Union Conservation of Nature Eastern and Southern Africa Regional Office, John Owino.

It is to be appreciated that the government is striving to protect wetlands, and has prioritized Water-Based Tourism under Kenya Vision 2030. This year, Ombaka Primary School in Kisumu County had a rare and life time opportunity to grab national and global exposure when it hosted celebrations to mark this years' World Wetlands Day.

The event served as spring board upon which stakeholders should lay strategies to boost tourism by making use of wetlands.

Kenya joined other nations in marking World Wetlands Day

An event the director general of National Environment Management Authority (NEMA) Director General, Dr Ayub Macharia explained its importance to WAHINYA HENRY

Q.) What is the significance of the 2012 World Wetlands celebrations theme: Tourism and wetlands to Kenya, especially in line with Kenya Vision 2030.

A.) World Wetlands day is celebrated on February 2 each year. It is a date set aside to mark the convention on Wetlands on the the actual date in 1971, in the Iranian City of Ramsar.

The 2012 theme is intended to demonstrate how protecting wetlands provides essential habitat for fish, birds and a variety of other animals. Such birds and animals are a great tourist attraction and provide recreational opportunities for local and foreign tourists.

The relationship between communities, tourism and wetlands is quite strong. In ecological, social and economic terms, wetlands are among the most valuable and productive ecosystems on earth, that provide important opportunities for sustainable development.

Most wetland areas are sources of community livelihood, food, craft, manufacture, medicine herbs, fish, water and fodder for livestock. They are also an important source of harvesting plants for building materials. Wetlands stabilize the coastal shoreline, hence prevent against erosion from waves and currents.

Kenya's coast is a major tourist holiday attraction site given 60% of tourists prefer the location to others.

Q.) What are wetlands and what are their importance?

A.) Wetlands refer to areas that are permanently, seasonally or oc-



Environment Assistant Minister Hon. Rev. Julius Murgor leads a procession to mark 2012 World Wetlands Day celebrations.

casionally waterlogged with fresh, saline, brackish or marine water including both natural and man made areas that support characteristic plants and animals. They include swamps, springs, dams, rivers, lakes, deltas, estuaries, mangroves among others.

Wetlands act as filters, whereby they filtrate pollutants from land. Large wetlands filter storm water, hence improving water quality in water resources while flat plan wetlands assist in recharge of ground water.

Q.) How would you rate the country's efforts in wetlands conservation?

A.) NEMA has developed tools of sustainable management of tourism development within wetland areas to safeguard them from undue disturbance. Such tools include Water Quality Regulations (2006) and Waste Management Regulations (2006) as well as the Wetlands Regulations (2009). Similarly, the Environmental Impact Assessment Regulation (2003) requires that all

developments within wetlands be subjected to Environmental impact assessment.

Currently, the Authority together other stakeholders have developed Strategic Environmental Assessment (SEA) Guidelines to help mitigate the adverse impacts of developments including tourism on aquatic ecosystems and associated catchment areas. The SEA guidelines are meant to guide programmes, policies and plans touching on wetlands and other ecosystems.

Q.) What are some of the challenges faced in the conservation and preservation of wetlands?

A.) When it comes to addressing sustainable wetland management from the perspective of community and tourism, encroachment is a serious impediment. This results in wetland alteration, birds and fish death. Urban development is another challenge that leads to **Continued on page 23**

NEMA to develop wetland monitoring and assessement strategy for Kenya

By Morton Saulo

New EMA is in the process of developing a Wetland Monitoring and Assessment Strategy (WEMASK) for Kenya. WEMASK will provide scientific sound strategies for monitoring and assessing status and trends of wetlands countrywide.

Wetlands constitute important ecosystems in landscapes. They are rich in both renewable and non

renewable re-sources, which primarily benefit humans. They play critical roles in the environment including supporting biodiversity, water purification, water storage and flow regulation, water provision and carbon sequestration. However, the capacity of wetlands ecosystems are threatened by both natural and anthropogenic influences such as land use changes,



NEMA Participates in The 2011 Nairobi Trade Fair

By Morton Saulo

NEMA participated at the 2011 Nairobi International Trade Fair (NITF) with a view to creating environmental awareness and educating the public on various environmental regulations. The Authority also utilized the forum to interact with the general public and receive feedback on various aspects related to environmental laws, NEMA operations and service delivery as well as general complaints.

The Authority participated in four award categories. These categories were the best stand that interprets the show theme, best non agricultural based statutory board, best stand exhibiting information communication technology and documentation services and best stand demonstrating the application of environmental quality and standards. NEMA emerged third best in the latter category.





NEMA stand at the Nairobi International Trade Fair.



Visitors listening attentively to a NEMA programme.

NEMA risk management policy

By Jacqueline Marita

rganizations operate in an uncertain world. All processes undertaken towards achievement of organizational objectives, involve uncertainty which implies that things may not go as planned. This uncertainty may be referred to as risks which need to be managed. Risk management is a process whereby organizations methodically address the risks that their activities could face. Risk management improves decision making, planning for efficient use/ allocation of capital and resources within the organization. It also promotes compliance with internal and external requirements.

NEMA senior management participated in a Risk Management Workshop. The purpose of the workshop was to: identify areas prone to risk and that would hinder the Authority from achieving its objectives, as well as sensitize management on risks affecting the Authority, review proposed mitigation measures and enhance risk appetite for management.

During the workshop, Management was briefed on the key need for risk assessment and mitigation. The managers were further trained on various responses to risk. These include: prevention of risks whereby countermeasures are put in place to either stop the threat or problem from occurring or prevent it from having any impact on a project or business. Another response is risk reduction whereby actions are taken to either reduce the likelihood of a risk developing or limiting the impact on the project to acceptable levels. Transference of risk is whereby the management of the risk is passed to a third party for



NEMA management and officers at the Audit Risk Retreat.

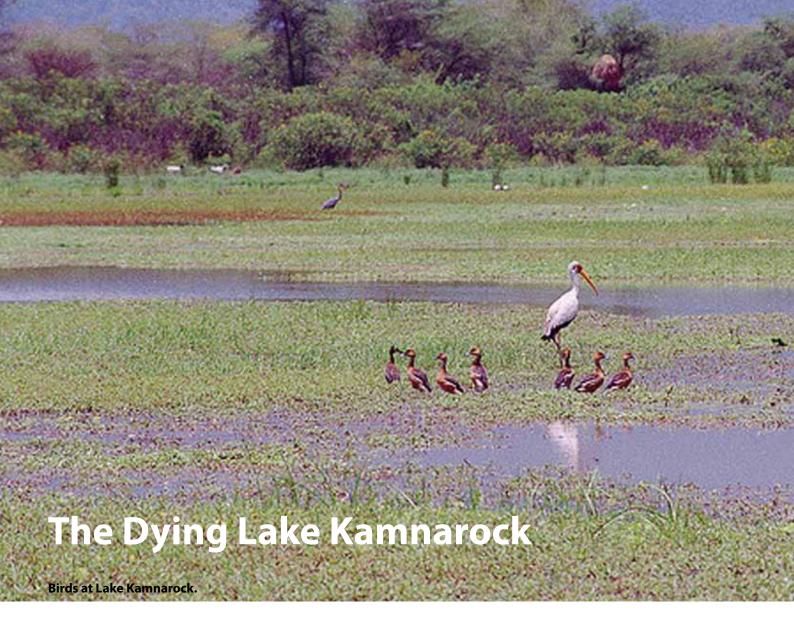


Diagram: courtesy

instance, through an insurance policy or penalty clause, such that the impact of the risk is no longer an issue to the Authority. Acceptance of risks involves the tolerance of the risk because nothing can be done to avoid the risk. Hence a reasonable cost is set aside to mitigate it or its likelihood and impacts at an acceptable level. This involves the development of contingency plans to deal with unforeseeable circumstances as and when the risk occurs. These include risks of emergencies and disasters.

An example of risk management of driving ones car was presented, whereby future risks are dealt with through servicing and taking up of insurance packages. Current risks are dealt with or mitigated by ensuring all gauges and lights are in proper working condition, checking repair schedules, pressure of tyres among others.

In his remarks to open the workshop the Ag. Director General, Dr. Ayub Macharia reminded the Management team that good companies are run when risks are recognized and addressed. He also stated that identified risk areas would be prioritized in the strategic and work plan. Dr. Macharia also stated that the identification of corruption risks earlier undertaken, combined with the identification of audit risks and mitigation measures identified will enhance NEMA's efficiency and service delivery. He also urged Management to endeavour to implement the mitigation measures identified.



By Wahinya Henry

ake Kamnarok on the floor of the Great Rift Valley in Kerio Valley, several kilometers from Kabarnet town was at one time a sight to behold before it dried up. The outcome of the death of the lake was disappearance of the numerous animals, rivers and hundreds of mammals.

Hundreds of tourists who previously trooped to the site to sample the wonder of the local game reserve next to the one square kilometer lake lying on an expansive 87 square-kilometer piece of land have also vanished.

Thousands of crocodiles and hundreds of elephants and other

species of mammals found in the wetland have disappeared as a result of the lake drying.

Across the country, similar ecological disasters have not spared a number of wetlands elsewhere. Among them is Nairagia Enkare dam currently completely silted due to erosion and sedimentation from wheat farming around Suswa. Kimana wetland of Kajiado has also receded due to change from group ranching to individual agricultural use.

Several wetlands in Trans Nzoia, Uasin Gishu, Kericho and Meru are threatened. Of the 432 dams that existed in Nyandarua, only 287 remain vibrant. Several conservationists, have expressed their concern at the continued degradation and drainage of wetlands given their fragility. Wetlands refer to areas that are permanently, seasonally or occasionally waterlogged with fresh, saline, brackish or marine water including both natural and manmade areas that support characteristic plants and animals. They include swamps, springs, dams, rivers, lakes, deltas, estuaries, mangroves among others.

"Wetlands are sensitive ecosystems that provide numerous direct and indirect values to Kenyans, notes Dr Walubengo the executive director of Kenya Forest Network. Dr Walubengo asserts that the country's wetlands



and riparian areas, remain at risk as a result of man's uncontrolled encroachment and overexploitation of wetland resources.

"These interfere with the living and non living aspects of the environment resulting in problems such as pollution, loss of biodiversity, degradation of life support systems and global climate change," says Dr Walubengo.

"Degradation of wetlands is triggered by physical modification of the landscape, depletion of wetland biological resources in disregard of the Constitution of Kenya 2010, which provides for sound conservation and protection of ecologically sensitive areas," says Dr Macharia, Ag. Director General NEMA.

Kenya joined other nations in marking World Wetlands Day,

Continued from page 17

diversion of solid and water waste management into wetlands. When a wetland is reduced as a buffer zone, the outcome is pollution along the zone while planting of alien tree species and unsustainable burning and grazing are other challenges.

Q.) Some lakes in Kenya, for instance Lake OI Bolossat, and Lake Kamnarok in the Rift Valley are under threat because of human encroachment.

What is NEMA doing to ensure that this important wetlands are protected.

A.) NEMA has developed some tools for this purpose. These tools include development of site-specific management plans for Lakes Ol Bolossat, Jipe, Sio-Siteko and Kamnarok through participatory processes.

Monitoring of pollution levels is being done in Nairobi River, Sosian, Tana and Nzoia. There are plans to spend over Sh 20 milion this year on wetland related issues in terms of monitoring, awareness raising, ICZM and training of locally based committees in order to protect them.

- **Q.)** What are some of the events that you have lined-up for the day?
- **A.)** The National celebrations for this year will be held at Ogenya Singida wetland in Nyando, Lake Victoria Basin. Counties have been staging their own activities, others have lined events to be held on the material day and after to popularize and raise awareness about the importance of wetlands and the theme.
- **Q.)** Are the current legal instruments sufficient to ensure the survival of wetlands
- **A.)** Legal instruments are being developed. These include the development of a Wetlands policy and Integrated Coastal Zone Management policy. These documents are awaiting to be presented to Cabinet by the Ministry of Environment and Mineral Resources.

The Authority is undertaking several restorative activities including rehabilitation of degraded wetlands and their riparian areas, national wetland inventory and production of an atlas. These are intended to support the wise-use of wetlands as required by Ramsar Convention.

The Constitution of Kenya has provided a new shift towards devolved wetland management; implying that collaborative initiatives and community participation will be key in delivering the aspirations of the new law as exemplified under articles 11, 42 and 69 and the national blue print

Article 42 has entrenched the right to clean and healthy environment for all and we are re-aligning the Environment Management Coordination Act (EMCA) 1999 to embrace these perspectives. We shall continue to monitor the status of wetlands and regulate tourism development within wetland areas.

NEMA board Uganda

By Jacqueline Marita

-he National Environment Management Authority (NEMA) Kenya, hosted the NEMA Board of Management of Uganda. The purpose of the visit was for the NEMA Board of Uganda to undertake bench marking of best environmental practices with NEMA Kenya. Other objectives of the visit were to review and share environmental management practices and corporate governance with a view to strengthening how the two Authorities undertake environmental management.

The NEMA Board of Uganda also visited other environmental institutions namely: the National Environment Tribunal to learn about the resolution of environmental disputes and conflicts. The delegation also visited the Department of Survey and Remote Sensing to understand how natural resources information is used to facilitate informed decision-making for sustainable environment management.

During the opening meeting, the NEMA Board of Uganda indicated that some of the key areas that the team were interested in learning about was how NEMA will operate in a decentralized system that is NEMA-Kenya's decentralization to counties. Other areas of interest to the Uganda team were on environmental compliance and management. The Uganda Board of management also indicated their interest in resource utilization, biodiversity conservation, oil production, waste management, revenue and benefit sharing.



NEMA Uganda and NEMA Kenya Board Members and officials at NEMA Kenya Headquarters.

During the discussions, a key area of interest that came up was on oil development and production. NEMA Uganda Board of Management stated that they were at the core of oil development and exploration in Uganda. Consequently they indicated that they had developed three pillars to drive oil exploration. The pillars are environmental, economic and resources. During the meeting it was stated that much of the oil in Uganda is in national parks with the richest oil well being in a park. Consequently NEMA Uganda is working with authorities handling matters of parks such as forests, water, lands and natural resources and fisheries.

The Uganda Board also stated that before oil exploration commences environmental impact assessment (EIAs) are undertaken. The Uganda Board recommended that strategic environmental impact assessment (SEA) should be undertaken before any oil development and production commences in Kenya. The purpose of a SEA would be to evaluate overall impacts of proposed oil development and production

visits **NEMA** Kenya



on the environment and propose mitigation measures. The Uganda Board also recommended that a multisectoral composition of executives of heads of key institutions to assist in adjudication of oil development and production. NEMA Uganda also indicated that it had developed a sensitivity atlas highlighting where a lot of oil is situated and that it was in the process of developing new regulations and policies to focus on oil and gas development and production.

On issues of decentralization, NEMA – Kenya informed NEMA



NEMA Uganda and NEMA Kenya Board Members and officials at the opening meeting.

Uganda that by 1st July 2012 NEMA would decentralize to counties. Counties would be able to process their own environmental issues for instance processing of low risk EIA licenses. NEMA headquarters would continue to process medium and high risk EIAs. However medium risk EIAs would also be decentralized to counties once staff numbers were increased to cope with the work load.

On funding NEMA's budgetary requirements, NEMA Kenya indicated that it requires at least ksh 2billion to meet its operations. However NEMA Kenya indicated that it did not receive all required funding from the exchequer in the current financial. NEMA – Kenya thus indicated that its other funding streams are from appropriation in aid funds which are gotten from its licensing regime. Donors who include Danish International

Development Agency (DANIDA) and the United Nations Environment Programme (UNEP) also support NEMA's programmes.

NEMA Kenya also indicated that it undertakes its enforcement using its environmental inspectors as well as police officers who are part of the environmental police unit. This had greatly enhanced inspection for the Authority especially where inspections are undertaken in highly sensitive circumstances or hostile environments.

Other cross cutting challenges that were discussed that face the two Authorities were lack of public awareness on the need to protect and conserve the environment, inadequate human and financial resources and weaknesses in environmental legislation. Solutions to address the highlighted challenges were also discussed.

KARA Hosts NEMA and Directorate



Participants at the KARA breakfast meeting.

By Jacqueline Marita

enya Alliance of Residents Associations (KARA) hosted officials from the National Environment Management Authority (NEMA) and Nairobi City Planning to a breakfast meeting. The purpose of the meeting was to discuss environmental issues affecting the city handled by NEMA and City Planning. These issues include issuance of environmental impact licenses, change of user licenses among others. The meeting was attended by resident associations from Metropolitan Court, Embakasi, Buruburu, Ruai, Ngei, Denis Pritt Road, Karen, Kitengela among others.

During the meeting Mr. Tom Odongo the Director City Planning explained that change of user is meant to respond to changing economic structures of the city that were not envisaged when planning was done. "Applicants applying for change of user are required to adhere to a number of conditions key of which is the need to put up a notice of the intended change in newspapers and on the site however many developers were not adhering to this requirement" Mr. Odongo said. This was resulting in the

City Council approving change of user of certain developments only for residents in surrounding areas to raise objections later.

Mr. Odongo stated that following the expiry of Nairobi's Master Strategic Plan the Government of Kenya was working with the Japanese government as a strategic partner to develop a programme to address water, solid waste, health issues and to develop a new master plan.

Morever Mr. Odongo noted that City Planning through the City Municipal Programme with the assistance of the World Bank is developing alternative disposal sewerage systems to meet environmental standards, public spaces recovery, rehabilitation and maintenance in order to make them accessible to the public. These plans are to fit in to the Nairobi Strategic Plan which will link in to the master plan.

The Planning director also noted that private sector participation was necessary. Institutions such as architectures, planners, engineers, surveyors and service providers would be involved so as to promote participation in various matters such as change or extension of user.

Mr. Odongo informed partici-

pants that automation of building plans processes was being undertaken. "This is envisaged to result in change of user, sub-divisions among others being undertaken electronically in what would be referred to as E-construction permits thus facilitating the carrying out of audits to bring down illegal structures in residential areas" said Mr. Odongo.

Members of KARA made the following comments to the Planning director's presentation: the development of the Nairobi Strategic Plan needs to be prioritized and that there should be transparency in change of user processes. Members also raised issues about developments such as petrol stations, business centres, illegal structures, food courts and bars mushrooming in residential areas as well as land grabbing, drainage and adoption of roads.

The NEMA, Ag. Director General Dr. Ayub Macharia explained how increased population had resulted in huge demand for economic and social services. These was creating environmental challenges such as encroachment on rivers, water, land and air pollution, increased waste

of Nairobi City Planning



Mr. Tom Odongo Director City Planning clarifies a matter during the breakfast meeting. Besides him (from left) is Dr. Ayub Macharia NEMA Ag. Director General and Mr. Henry Ochieng Programs Manager Kenya Alliance of Resident Associations.

generation and disposal challenges, diseases and demand for adequate infrastructure such as sewerage and drainage.

Dr. Macharia highlighted that NEMA requires all upcoming urban developments to be subjected to environmental impact assessment (EIA). Existing facilities are also required to undertake environmental audits of their facilities in order to identify any environmental challenges that they experience and how they mitigate against these.

Participants present were also informed that NEMA was engaging lead agencies such as councils and the Ministry of Public Health to ensure that the environment is protected. Dr. Macharia further explained that the Authority had developed guidelines on sand harvesting, asbestos, E-waste, integrated land use among others. These are found on the NEMA website www.nema.go.ke. Dr. Macharia also informed participants about monitoring of illegal dumpsites and effluent discharges.

The Ag. Director noted that the production of the annual State of Environment report was providing actionable policies to address en-

vironmental issues such as forest cover, air, land and water pollution, climate change with the aim of assuring a clean and healthy environment for all.

Dr. Macharia further stated that the usage of raw untreated sewerage to irrigate crops was illegal and the Authority was working with the

The development of the Nairobi Strategic Plan needs to be prioritized and that there is need for transparency in change of user processes

Ministry of Agriculture and Ministry of Health to uproot vegetables grown using sewerage.

While commenting on Dr. Macharia's presentation, members stated the public needs to be engaged in the review of Environmental Management and Co-ordination Act 1999 so that a law can be developed that will promote sustainable development. Issue of noise, encroachment of wetlands and roads, increase in the growth of slums and illegal structures, quarries situated near residential areas poor

drainage leading to the blockage of roads, mosquito breeding sites and the risk of drowning children were raised as challenges faced by residents. The influx of telecommunication masts and transformers next to buildings was also raised. Participant felt that this was resulting in the public being exposed to electromagnetic radiation and emissions which could have harmful effects on them.

Dr. Macharia informed participants that zoning was key for purposes of controlling developments. Members were informed that the National Radiation Board is supposed to regulate emissions while NEMA's role is to ensure that the masts are situated in correct areas. On quarries, the Ag. Director General stated that the quarries in Nairobi are situated in a unique belt; hence there was need for residential houses to be situated away from quarry sites.

The meeting concluded with resident associations agreeing to work closely with NEMA and the City Council as agents who can assist in identifying issues in order for them to be addressed by NEMA and City Planning.

Tribute To The Late

By Jacqueline Marita

The Board of Management, directors and staff of the National Environment Management Authority (NEMA) were deeply saddened by the passing on of Hon. John N. Michuki the late Minister for Environmet and Mineral Resources. On behalf of the Authority the NEMA Board of Management Chairman Hon. Francis Ole Kapora sent sincere condolences to the family and members of Kangema Constituency.

In his message the Board Chairman stated "as an Authority we are immensely dismayed by Hon. Michuki's death. This is because the Authority recognizes the key role that Hon. Michuki played in the Ministry of Environment and Mineral Resources in championing environment conservation and protection".

In particular the Board Chairman stated that the Authority remembered the late Hon. Michuki as being a person who passionately believed in rules: living by them and enforcing them. His conduct always complied to laid down procedures and rules, written or unwritten and he expected others to comply with the same. Hon. Ole Kaparo also stated that the late Hon. Michuki was very disciplined and expected everyone else to be disciplined. He was firm and fair on matters he believed in. "The late Hon. Michuki was a great reformer and he did this without shouting. He brought change where he thought change was needed, with clarity of mind and firmness of purpose. Indeed NEMA joins



Permanent Secretary Ali Mohammed (left), the Late Hon John Michuki (centre) and Hon Francis Ole Kaparo after planting trees to commemorate World Environment Day 2011.

the entire country in mourning the loss of this great man," said Ole Kaparo.

In addition the Authority will remember the late Hon. Michuki:

- Advocating for NEMA to be allocated more financial resources to enable the Authority effectively undertake its mandate. The resources were able to facilitate the recruitment of staff and development of infrastructure to
- serve the people of Kenya.
- 2. For his thorough and deep understanding of the Environmental Management and Co-ordination Act 1999 which establishes NEMA. His understanding enabled him to institute policies and programmes aimed at ensuring a clean and healthy environment is assured to all the people of Kenya.
- 3. Passionate support for the roll

Hon. John N. Michuki



The late Hon. John Michuki, Hon. Francis O. Kaparo - Chairman NEMA Board of Management and Dr. Ayub Macharia NEMA Ag. Director General enjoying a presentation during the 2011 World Environment day celebrations held at Kiruri Boys Secondary School in Kangema.

out and enforcement of the Environmental Management and Coordination (Noise and Excessive Vibration Pollution Control) Regulation, 2009. This Regulation greatly helped to bring the negative effect of noise to the public limelight and why it is necessary to enforce it.

- 4. Greening of schools initiative: The late Hon. Michuki's advocacy of schools to harvest rain water and young people to plant trees aimed at increasing the country's forest cover with a view to minimizing the effects of climate change on the country.
- 5. Advocating for the protection of the Country's water towers through the rehabilitation of

Naivasha catchment.

- 6. As an efficient leader and avid reader the late Hon. Michuki always sought to understand concepts before making a decision. This constantly resulted in him making well thought out and informed decisions. Furthermore the late Minister had high regard for all staff both at senior or junior level and he continuously recognized and acknowledged the role played by all.
- 7. His strong advocacy for a clean and healthy environment resulted in the development of a programme to clean up the Nairobi River. This initiative aimed at restoring bio-diversity to the river and

- creating recreational points along the course of the river. Today Nairobi River is clean and bio-diversity including fish is available therein.
- It is from the above that we as an Authority can in his death celebrate his long and productive life and career.

NEMA's vision is "to be a world class environmental management authority that ensures a clean, healthy, secure and sustainably managed environment for all. NEMA will continue to develop and implement programmes identified by the late Hon. Michuki with a view to assuring a clean and healthy environment to all Kenyan's. By so doing we shall ensure Hon. Michuki's legacy lives on.

