

# WORLD WETLANDS DAY (2014) CELEBRATIONS IN KENYA

## REPORT

**Theme : Wetlands and Agriculture: Partners for Growth**



FEBRUARY 2014



## Acknowledgements

Numerous individuals and their institutions have worked extensively and tirelessly in the preparations to mark the World Wetlands Day 2014 and its build up activities through the National Organizing Committee (NOC) coordinated by the National Environment Management Authority – NEMA- Kenya. The World Wetlands Day 2014 celebrations would not have been made a success without the efforts of these individuals and their institutions. For that, we would like to acknowledge with appreciation all the committee members both at the local and national levels respectively.

We thank the Ministry of Environment, Water and Natural Resources (MEWNR), Kenya Wildlife Service (KWS), National Museums of Kenya (NMK), African Wildlife Foundation (AWF), Laikipia Wild Wildlife Foundation (LWF), Wetlands International, Kenya Country Office (WIKO), Kenya Wetlands Biodiversity Research Team (KENWEB), Kenya Wetlands Forum (KWF), Safaricom, Kenya Literature Bureau (KLB), Water Capacity Building Network (WaterCap), Lake Victoria Environment Management Project Phase (LVEMP II) – Kenya, Uganda, Tanzania, Rwanda and Burundi, World Wild Fund for Nature(WWF), Lake Victoria Basin Commission (LVBC), County Governments of Laikipia and Busia, Mumias Sugar Company, Water Resources Management Authority (WRMA) and NEMA for their key role in the organization and successful celebrations. Special acknowledgement and thanks is given to the County Organization Committees (COCs) for ensuring that all preparations on the ground went smoothly.

We appreciate the cooperation and support particularly from the general public for taking part in the exhibitions, competitions, entertainments and listening to the various speeches and presentations during this important awareness raising campaign.

## Table of Contents

Acknowledgements .....	i
Table of Contents .....	iii
List of Plates .....	iii
Acronyms .....	iv
1.0 Background and Introduction .....	1
1.1 Awareness Creation and Build-Up Event .....	1
1.1.1 Interactive Panel Discussion .....	3
1.1.2 Tana Delta Buildup Event .....	4
1.1.3 Print Media .....	5
2.0 Main Event in Busia .....	6
2.1 Cleanup .....	10
2.0 Procession .....	10
2.3 Visit to the Sio-Siteko Wetland by dignitaries .....	11
2.4 Bicycle Competition .....	13
2.5 Tree Planting .....	14
2.6 Exhibitions .....	16
2.7 Entertainments .....	17
2.8 Remarks and Speeches .....	18
2.9 Awards .....	25

## List of Plates

**1(a):** A wareness material used during the Laikipia buildup event: Panel Discussion

**1(b):**A community member participates in IPG during the buildup event celebrations at Marula wetland , Rumuruti, Laikipia County

**1(c):** Pupils following the proceedings during the event

**2(a):** Participants take part in the cleanup exercise in Busia town

**2(b):** Dr Kaudia flags off the procession

**2(c):** Dignitaries, community members and school pupils walk to the venue

**2(d):** Dr. Ondimu, NEMA with other dignitaries at Sio-siteko wetland

**2(e):** Dignitaries are taken around the wetland site

**2(f):** Mr. Stephen Katua, the Deputy Director Coastal Marine and Fresh waters sub-department NEMA, gives an account of Sio-siteko wetland to the dignitaries.

**2(g):** Mr. Wangalwa, The Deputy Governor flags-off bodaboda competitors

**2(h):** Bodaboda competitors start off the race

**2(i):** Dr. Kaudia, MEWNR, plants a tree to mark the celebrations

**2(j):** Prof. Wahungu,NEMA, plants a tree to mark the celebrations

**2(k):** Mr. Maluki, chairman NEMA board of management, plants a tree to mark the celebrations

**2(l):** Dr. Alice Kaudia, the environment secretary Ministry of environment and Chief Guest is lead through part of exhibitions by Mrs. Betty Nzioka, the Deputy Director Environmental awareness NEMA during WWD 2014.

**2(m):** Right; Exhibition in form of trees species by the Kenya Forest Service; Left: Participants from LVEMP II give an account on wetland management and conservation in the Lake Victoria basin.

**2(n):** A community women group entertains guests

**2(p):** Environment Secretary Dr Alice Kaudia delivers the keynote address on behalf of the Cabinet Secretary Prof Judi Wakhungu.

**2(q):** The dignitaries when they visited the NEMA stand during the World Wetlands Day held at Busende Primary School in Busia County.

**2(r):** NEMA DG Prof Geoffrey Wahungu introduces key stakeholders that NEMA closely works with during the WWD 2014.

**2(s):** NEMA Board Chairman Mr. Maluki Mwendwa makes his speech.

**2(t):** Busia Deputy Governor Mr. Kizito Wangalwa welcomes the guest of honor to make the key note address the national celebrations.

**2(u):** The representative of LVBC while giving a speech during the WWD 2014 celebrations

**2(v):** The representative of Danish Embassy while giving her speech during the WWD 2014 celebrations.

**2(w):** The program manager, Wetland International while giving her speech during the WWD 2014 celebrations

**2(x):** Prof. Wahungu, Director General NEMA issues a certificate of participation to a member of Busia Brass band during the WWD 2014 celebrations.

**2(y):** Mr. Wangalwa, the Deputy Governor Busia County presents a token to Mr. Moses Bwire, the best cyclist during the WWD 2014 celebrations.

**2(z):** Dr. Kaudia, the Environment Secretary MEWNR, while presenting a copy of wetland atlas to headteacher Busende primary school.

## Acronyms

<b>NEMA</b>	National Environment Management Authority
<b>MEWNR</b>	Ministry of Environment Water and Natural Resources
<b>LVEMP II</b>	Lake Victoria Environment Management Project
<b>KFS</b>	Kenya Forest Service
<b>KWS</b>	Kenya Wildlife Service
<b>NOC</b>	National Organizing Committee
<b>DG</b>	Director General
<b>LWF</b>	Laikipia Wildlife Forum
<b>WRMA</b>	Water Resources Management Authority
<b>GDP</b>	Gross Domestic Product
<b>WWD</b>	World Wetlands Day
<b>MOA</b>	Ministry of Agriculture
<b>IUCN</b>	International Union for Conservation of Nature

## 1.0 Background and Introduction

The Convention on Wetlands of International Importance, called the Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The Convention was adopted on 2nd February 1971 in the Iranian city of Ramsar and came into force in 1975. Kenya became a Party to the Ramsar Convention in 1990 and enlisted Lake Nakuru as the first Ramsar site – wetland of international importance. Apart from this, other wetlands of international importance in Kenya include Lakes Baringo, Bogoria, Naivasha and Elementaita and the newest, Tana Delta.

2014 being the UN International Year of Family Farming – the Ramsar Convention chose Wetlands & Agriculture, as the World Wetlands Day theme for 2014. This theme describes the intimate though delicate linkage between wetlands and food production/ agriculture. The slogan; *Wetlands and Agriculture: Partners for Growth*, places a focus on the need for the wetlands, water and agricultural sectors (to work together both enhanced ecological integrity/resilience and livelihoods improvement. This theme resonates very well in Kenya's context, being a developing state and grappling with challenges of food security, must therefore embrace sustainable agriculture in order to meet the overwhelming food and dietetics requirements by the ever increasing population (inter-censal growth rate stands at 3%), as envisioned in the National Development Blueprint, Kenya Vision 2030.

Wetlands have often been seen as a barrier to agriculture, and they continue to be drained and reclaimed to make farming land available. But the essential role of wetlands in support of agriculture is becoming clearer and clearer, and there are successful agricultural practices and technologies which support healthy wetlands.

### 1.1 Awareness Creation and Build-Up Events

The theme for WWD 2014 invoked a paradigm shift from the quite often sectoral approach in natural resource management to a more sustainable and integrated natural resources management, taking cognizance of the interconnectedness between ecosystems and livelihood derivation. Agriculture and wetlands are critical and interconnected sectors demanding multipronged approaches in fostering sustainable food production wetlands ecosystem resilience. Wetlands provide essential services and goods including harboring huge biodiversity with enormous economic returns (Gross Domestic Product), act as microclimate enhancers, climate change mitigation roles, as well as water provisioning -required in performing several functions including agro-production.



In order to raise public awareness on these important ecosystems and the services and goods derived from them, the NOC undertook several actions both buildup event celebration- a panel discussion as well as using media – both print and electronic). Some of these are briefly described here-below:

The National celebration was held on the 2<sup>nd</sup> February 2014 at Busende Primary School, Busia County. Prior to national WWD 2014 celebrations, a major buildup event, a panel discussion was held to raise public awareness and consciousness on the importance and linkage between wetlands and agricultural development in Laikipia County. Focusing the vulnerable Marula wetland situated in Kenya's Arid and Semi Lands of Rumuruti, Laikipia, the discussion aimed at generating consciousness to the County level stakeholders and communities on the need to undertake sustainable agriculture around wetland areas. The main audiences included the Rumuruti Prisons, currently undertaking farming within tis swamp-type and riverine wetland, which has posed a big challenge in managing this ecosystem, Water Resources users Association (WRUAs), Ministry of Water, WRMA, KFS, Laikipia Wild Life Forum members and support communities groups, students and CSOs. The Deputy Governor, Laikipia County, Hon. Gitonga, graced the occasion. Other guests included, the representative of the Director General NEMA-Kenya, Deputy Director Coastal Marine and Fresh water-NEMA, the County Director of Environment, WRMA regional and sub-regional Managers, Chief Executive Officer-LWF, Representative of the Ministry of Agriculture, representative from KWS, NEMA Officers among others.



*1(a) A wareness material used during the Laikipia Panel Discussion*



*1(b) A community (WRUA) member participates in IPG during the panel discussion at Marula wetland in Laikipia*

#### **1.1.1 Interactive Panel Discussion**

One of the key awareness activities that the NOC planned was a panel discussion targeting government agencies, private sector, civil society and community members. The discussion themed “**Wetland and Agriculture: Partners for growth**” was held on Friday 16th January 2014 next to the Marula wetland in Laikipia. The discussion provided a platform for knowledge and information exchange between the experts/technocrats from institutions with a mandate on wetland and Agriculture in line with the theme. In addition, the forum provided participants with varied options on best wetland practices through exhibitions. The essence of holding the discussion was grounded on the fact that members of the public must be informed on what the government is doing/intends to do as per Article 57 of the Constitution of Kenya 2010 and this becomes an excellent opportunity for the public to give their viewpoints, concerns and issues regarding the subject area for future planning, policy formulation and execution of various programmes and projects by different stakeholders. As a result diverse stakeholders in terms of institutional mandate constituted the panelists. These (panelists) were derived from the NEMA, County Government, WRMA, Ministry of Agriculture, Laikipia Wildlife Forum, and National Museums of Kenya. The IPD was moderated by Mr. Benard Opaa, Wetlands Officer, NEMA and assisted by Mr. Magut, the County Director of Environment, Laikipia County.

The discussion sought to provide answers to many Frequently Asked Questions (FAQs) about the relationship between wetlands and agriculture. The public was mainly concerned and worried at the rate at which wetlands were being degraded through conversion for agriculture and human settlement. More concerns were raised regarding NEMA’s role in controlling developments through the EIA process



especially for those developments that were being erected within wetlands and associated riparian areas.

### **1.1.2 Launching of Tana Delta as Kenya's Sixth Ramsar site**

In addition to the IPD, it became apparent that Kenya's sixth Ramsar Site had not been officially launched. Designated in October 2012 as a Ramsar Site owing to its potential and importance in terms of biodiversity and socio-economics, the Tana delta was recognized and designated to provide it with the much needed international recognition. This year saw the therefore saw the launch of this important but fragile deltaic wetland in Kenya's coastal region Tana Delta was officially launched as a sixth Ramsar site in a colorful ceremony which was held at Handaraku Village, Tana River County on 30<sup>th</sup> January, 2014. The designation of Ramsar sites is in line with article 2 of the constitution of Kenya 2010 and the government's commitment to Ramsar convention.

The ceremony brought together conservation enthusiasts, wetlands experts and local community on Thursday (January 30, 2014) in Handaraku, Tana River County. It joined the list of other five designated Ramsar sites in Kenya namely Lake(s) Naivasha, Nakuru, Bogoria, Elementaita and Baringo.

This global recognition calls for the conservation of the Tana delta wetlands resources for sustainable development. It aims at eliminating progressive encroachment on and loss of wetlands now and in the future. It acknowledges the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value.

The designation of the Tana River delta as a Ramsar site will encourage partnerships that focus on watershed conservation efforts. It aims at dealing with off-site development that could threaten the biodiversity and ecosystem services provided by the site consequently increasing the area for wildlife conservation at national level.

It will also lead to increased funding for research, management and tourism. The public awareness of the site will also highlight its importance and aesthetic value, leading to an increase in tourism directly stimulating economic development of the area.

At 163,600 hectares, the delta is designated as an Important Bird Area by Birdlife International (IBA) as it shelters globally threatened birds. About 5000 breeding water birds from 13 species use it as a breeding site. The delta is the second most important estuarine and deltaic ecosystem in Eastern Africa. It comprises a variety of freshwater, floodplain, estuarine and coastal habitats with extensive and diverse mangrove systems.

It's diversity in habitats permits diverse hydrological functions and a rich biodiversity including coastal and marine prawns, shrimps, bivalves and fish, five species of threatened marine turtles and the IUCN red-listed African Elephant.

Other sites proposed for designation as Ramsar sites include the Yala swamp, Saiwa swamp and the trans-boundary Sio-Siteko wetland ecosystem.



1(c) Pupils from Handaraku primary school following the proceedings during the launch

### 1.1.3 Print Media

Print media was used to raise awareness about linkage between wetlands and agriculture, emphasizing on the theme. Specifically, the *Daily Nation* of 29<sup>th</sup> January, 2014 with a national coverage was used to advertise the upcoming national celebrations on 2<sup>nd</sup> February 2014 in Busia through a public notice on a newspaper (See plate). This was followed by a detailed coverage of Kenya's wetland issues, emergent issues and actions taken so far by the government to sustainably manage the wetlands on newspaper supplements that appeared on the both the *Sunday Nation* and the *Standard on Sunday* of 2<sup>nd</sup> February, 2014 (see plate). All these avenues were used to hype the national event at Sio-siteko transboundary wetland in Busia County while calling for action. The public notices and supplements are here below.

REPUBLIC OF KENYA



MINISTRY OF ENVIRONMENT, WATER AND NATURAL RESOURCES

## WORLD WETLANDS DAY 2014

In Kenya, wetlands are swamps, marshes, bogs, shallow lakes, ice-free lakes, dams, riverbanks, floodplains, water catchment areas, floodplains, the papyrus, lakehores, mangroves, tea grain fields, daffs, estuaries, coral reefs, the seashore and associated riparian areas. They occupy about 2% to 4% of Kenya's land surface, approximately 14,000 km<sup>2</sup> and fluctuate up to 5% during the rainy seasons. Wetlands, the kidneys of the earth, perform essential functions such as recharge of underground water; water filtration and storage; source of food, medicine and materials for many communities; moderate climate; harbor diverse plants and animals; regulate floods and stabilize shorelines, among other functions. Despite the numerous goods and services they provide, they have received little recognition and continue to face serious threats making them the most degraded and rapidly lost ecosystems in the world.

**Ramsar Convention, 1971 and World Wetlands Day:** The Ramsar Convention ([www.ramsar.org](http://www.ramsar.org)) is an intergovernmental treaty dealing purely with wetland ecosystems, promoting their sustainable management and utilization. The Convention on Wetlands was adopted on 2<sup>nd</sup> February 1971 in the Iranian city of Ramsar. This is marked annually as the World Wetlands Day (WWD). Kenya has been a party to the convention since 3<sup>rd</sup> October 1990 and has designated 4 wetlands as Ramsar sites: wetlands of international importance. These include Lake Nakuru, Nakuru, Bogoria, Baringo, Elementaria and the coastal, Tana Delta, which will be officially launched as a Ramsar site at Miglia, Garissa on 30<sup>th</sup> January 2014. The designation of Ramsar sites is in line with article 2 of the Constitution of Kenya 2010 and the government's commitment to the Ramsar Convention.

**World Wetlands Day 2014 - Theme and Relevance to Kenya:** 2014 is the UN International Year of Family Farming, as the Ramsar Convention chose Wetlands & Agriculture as the WWD theme for 2014. The slogan for WWD 2014 is Wetlands and Agriculture: Partners for Growth, which places a focus on the need for integrated management in recognition of the important interdependency between farming and wetlands. Wetlands have often been seen as a barrier to agriculture and continue to be drained and reclaimed to make farming land available. However, the essential role of wetlands in supporting agriculture is becoming clearer, demonstrating successful agricultural practices which support healthy wetlands. In Kenya, many communities undertake farming within and around wetlands. However, the challenge has been to make sustainable agricultural practices and technologies adaptable to the local needs of the communities in order to enhance both acceptance and community resilience, especially in the face of a rapidly changing climate.

Buy-Sikoko Transboundary wetland is the site for the National WWD Celebrations on 2<sup>nd</sup> February 2014 at Buy-Sikoko Primary School, Busia County. This wetland is shared by both Kenya and Uganda, providing numerous ecosystem goods and services but faces many threats, resulting in its degradation. Though an integrated Wetland Management Plan (IWMP) exists for this wetland, the implementation of the same has not been realized, partly due to lack of resources and commitment from various actors. It is for this reason that Buy-Sikoko wetland was selected to mark WWD 2014 in order to not only profile it, but also to mobilize stakeholders across different regional, national and county levels towards achieving its sustainability. In this regard, Kenya will also host regional delegates from the East African Community (EAC) partner states.

Members of the public are invited to attend and participate in the Tana Delta and Busia event. For more information, kindly contact Mr. Bernard Opa on 0720 963 436 or [bernard@kenya.go.ke](mailto:bernard@kenya.go.ke)



Public notice on Daily of Wednesday 29 January 2014



## MINISTRY OF ENVIRONMENT, WATER AND NATURAL RESOURCES

### WORLD WETLANDS DAY 2014 ON 2 FEBRUARY 2014 AT BUSENDE PRIMARY SCHOOL, BUSIA COUNTY, KENYA



## Why protection of wetlands must be a priority for all

**BACKGROUND**

Wetlands have been defined as the wet, low-lying areas of the landscape that are periodically flooded. They have also been described as "biological supermarkets" because of the diverse food webs and rich biodiversity they support. They are considered to be important ecosystems, which contribute significantly to national economies. However, despite the numerous goods and services they provide, they have received little recognition and continue to face serious threats mainly from the actions of their various users. Many great wetlands have been drained or converted to other uses and their benefits have not been understood.

Wetlands (Wetland) are ecosystems and globally every year on 2 February. The observance was at national level in 1997, and has since been taken up by many governments, organizations, institutions and communities to undertake activities aimed at raising public awareness about wetland values and benefits, sustainable development and the use of wetlands.

### WORLD WETLANDS DAY 2014 THEME AND RELEVANCE TO KENYA

2014 is the 17th anniversary of the United Nations World Wetlands Day. The theme for 2014 is "Wetlands and Agriculture". This year's theme Wetlands and Agriculture focuses on the growing awareness of the

need for Wetlands, Water and Agricultural activities to work together for a sustainable future. Wetlands are generally productive ecosystems. In Kenya, millions of people heavily depend on wetlands for food and services such as water, food, medicine, security and other services to the country's GDP. However, many wetlands are faced with challenges which include pollution, effects of fires and land-use changes, wetland degradation and drainage mainly for agriculture and other purposes. Inappropriate land-use and unsustainable practices leading to the degradation of wetlands are a major threat to the country's economy, security and livelihoods and others that are essential for development. All these coupled with rapid population growth and climate change have put wetlands at a critical juncture. The country has had to develop wetland management and conservation strategies to ensure that wetlands are protected and their benefits are realized. The country has to be equipped with the following six wetlands at Busende Primary School:

### GOVERNMENT'S EFFORTS IN ENSURING SUSTAINABLE WETLAND MANAGEMENT

Land and Environmental Management, Kenya is a party to the Ramsar Convention. The international treaty provides a framework for the conservation and sustainable use of wetlands. The country has to be equipped with the following six wetlands at Busende Primary School:

Malindi, Mtwara, Rongai, Ruvu, Sabaki, Tana, and other wetlands in the country. Tana Delta is the largest Ramsar site in the country and was officially launched on 1st January 2004.

At the national level, the Environmental Management and Coordination Act (EMCA), 1992 provides for the protection of wetlands and other resources. Further, Environmental Management and Coordination (Wetlands) Regulations, 2006 provide for the wise use and sustainable management of wetlands. In addition, the Environmental Management and Coordination (Water Quality) Regulations, 2006 protect aquatic ecosystems from pollution by setting appropriate standards for effluent discharge.

### VENUE FOR THE NATIONAL EVENT

The 2014 World Wetland Day will be celebrated on 2nd February and will focus on the State Ramsar Wetland in Busende Primary School in Busia County.

In addition, a wetland stand for both Kenya and Uganda provides materials, equipment and services. However, the wetland stand also has a role in promoting crop production, growth, changes in land use and pollution. These have consequently resulted in the degradation of this important wetland in the Lake Victoria Basin (LVB).

## Message by Cabinet Secretary, Ministry of Environment, Water and Natural Resources



Prof. Jullia Wadhwa

Wetlands are complex and vital ecosystems providing numerous benefits to both nature and mankind. They regulate water flow, exchange gases, filter sediments and other pollutants, stabilize shorelines and wetlands, and are of enormous importance to humans supporting biodiversity, tourism, recreation and other of high economic importance for promotion of water and fisheries and other wetland-dependent activities. In Kenya, wetlands cover approximately 1,000 km<sup>2</sup> of the land area of the country. They are rich in living and non-living natural resources, and are important sources of food, medicine, timber, fuel, and materials for building and handicrafts.

The Government of Kenya

understands the importance of the environment and in particular wetlands, play in sustainable development. It is committed to achieving Vision 2030, the national development blueprint, which aims to make Kenya a middle income country providing high quality life for all its citizens by the year 2030. Wetlands, particularly the coastal wetlands, are critical for the country's economy, security, and livelihoods and other.

My Ministry has embarked on the following management interventions in order to ensure wetlands degradation in Kenya, development and sustainable use of wetlands. The Ministry has also undertaken national wetland inventory to establish the spatial distribution and status of various wetlands in the country. This inventory information is important in development, implementation and monitoring of wetland conservation strategies at national and county levels. We are all urged to ensure that we all play our part in the management of our national wetlands so as to contribute to the sustainable development of the country.

provides without moment of what is happening to various wetlands in Kenya and provide mitigation actions. The Marine Plan for the Conservation and Management of Water Catchment Areas, 2004, provides a framework for the management of wetlands within a catchment area in order to achieve conservation and sustainable management of the country's water resources. The country's water resources are becoming more scarce and vulnerable to pollution, particularly in the coastal areas of the country such as the Lake Victoria Basin.

I call upon all Kenyans to support environmental management, and more so coastal protection, to protect their resources from degradation towards wetlands and other natural resources.

## Message by, The Principal Secretary, State Department of Environment, Water and Natural Resources

There are many wetlands in the country ranging from mangroves, rivers, lakes, swamps, floodplains, ponds, and other natural resources. These wetlands are important ecosystems that have contributed to the development of the country's economy, security, and livelihoods and other. The Ministry of Environment, Water and Natural Resources (MWRN) has continued to support sustainable wetland management in Kenya. Some of the measures that have been put in place to protect and conserve wetlands and sustainable

management of wetlands include wetland mapping and planning with partners such as the Lake Victoria Environmental Management Programme II. Examples of wetland management plans developed in Lake Victoria Basin include Kilimo and Kinyereh (Kinyereh) in Kisumu County. These are aimed at improving the health and sustainability of these fragile wetlands as a tool to support the country's economy and services.

The MWRN has also

undertaken national wetland inventory to establish the spatial distribution and status of various wetlands in the country. This inventory information is important in development, implementation and monitoring of wetland conservation strategies at national and county levels. We are all urged to ensure that we all play our part in the management of our national wetlands so as to contribute to the sustainable development of the country.



Dr. Richard Lele

'Our environment, our life, our responsibility'

Media supplement on the Standard newspaper, Sunday 2 February 2014



Sunday, February 2, 2014 / The Standard



## MINISTRY OF ENVIRONMENT, WATER AND NATURAL RESOURCES

### WORLD WETLANDS DAY 2014 ON 2 FEBRUARY 2014 AT BUSENDE PRIMARY SCHOOL, BUSIA COUNTY- KENYA

#### Message by, Chairman, NEMA Board of Management



Mr. Mutahi Ngunjiri

**W**etlands are habitats for a wide variety of animal and plant life which are beneficial and integral to agriculture and food security. The Board of Management of the National Environment Management Authority (NEMA) supports sustainable wetlands management. The Board has mobilized resources and forged partnerships for sustained restoration and rehabilitation of wetlands in Kenya.

*That is the message of wetlands*

is pivotal as it is a single resource and therefore needs to be taken care of by all for sustenance of current and future generations. This will go a long way in reducing dependence on rain fed agriculture and consequently ensuring food security both in Busia County and the country at large. The monitoring of these areas will ensure that we are aware of how wetlands work therefore enabling us to use them in a sustainable manner.

#### Message from Director General, NEMA



Prof. Geoffrey Njiru

**W**etlands contribute directly and indirectly to the national economy through provisioning, supporting, regulatory and cultural services. However, they continue to face a myriad of challenges.

As part of the Authority's commitments to protect wetlands, we have among other activities, undertaken the following:

- Developed management plans for various wetlands including Lake Ol Pejeta in Nyandarua, Lake Victoria Wetlands, Lake Elgeyo in Trans and Rift Valley in Busia, the latter two being trans boundary wetlands.
- Inventoryed wetlands across the country to enhance monitoring and tracking of ecological changes in wetlands.
- Participated in wetlands mapping exercises and

contributed to the development of the Wetlands Atlas.

The Authority has fostered collaboration and strategic partnership with stakeholders to promote conservation and wise-use activities and will continue to:

- Regulate development within and around wetlands through integrated environmental assessments including enforcement of other related wetland management laws.
- Raise awareness - promote public participation and education on wetlands regarding sustainable wetlands management in the country.
- Deliver wetland development and restoration funded wetland APNs.
- Implement strategic Public Private People Partnership (4Ps) measures towards restoration and rehabilitation of wetland ecosystems.

#### Message from Governor, County Government of Busia



H.E. Sam Ngunjiri

the need for water and work together for best shared outcomes.

The integrity of the Country's water resources and agricultural productivity is underpinned by our Wetlands. In Busia county and many other parts of the country during the dry seasons, wetlands are the only places where local communities are able to access quality pasture and support for production of vegetables and other quick maturing crops for household consumption.

My Government has developed the Plan (ICDP) for 2013-2017 which

#### Message from County Executive Committee Member, Water Environment and Natural Resources, Busia County

**T**he Six -Sided wetland which is the focus of the 2014 world wetlands day consists of an extensive wetland and a tertiary wetland sub-system through a system that stretches along the Kenya-Uganda border from Busia District in Uganda and Malindi and Lamu sub-counties in Kenya and drains into Lake Victoria.

The Six Sided Wetland ecological and socio-economic values include collection of cash materials, grazing and fishing, growing of yams, vegetables, vegetables, cotton, sugar, tobacco and livestock. The wetland has sustained water from which



Media supplement on the *Standard* Newspaper of 2 February 2014





## World Wetlands Day 2014

**Ministry of Environment, Water and Natural Resources**  
**LAKE VICTORIA ENVIRONMENTAL MANAGEMENT PROJECT PHASE II**



LITTON, R. B. 1993.

## PROJECT BACKGROUND

**Lake Victoria Environmental Management Project Phase Two (LIVEMP II)** is a regional intervention by the New East African Community (NEAC) Partner States, coordinated by the Lake Victoria Basin Commission (LVBC), to focus on improving the management of lake boundary nature resources in the Lake Victoria Basin (LVB). The establishment of LIVEMP II is to contribute to the EAC's vision and strategic framework for management and development of Lake Victoria Basin to a "a progressive population living in a healthy and sustainably managed environment enjoying equitable opportunities and benefits".

This project is jointly funded by the two Partner States: Governments and the World Bank through the International Development Association (IDA), located International Development Agency (IDA) (Joint Government Fund) (JGF). In Kenya, the Ministry of Environment, Water and Forestry (MWEF) provides the overall coordination and guidance in the project implementation in consultation with other implementing institutions.

The CA measures are used widely to foster extensive areas of riparian ecosystems, including wetland areas, stabilization and improvement of water water treatment facilities, construction of natural resource corridors and other water control.

The GIS systems are used for policy formulation and establishment of the regional effluent discharge standards, development of regional water resources management framework, activities monitoring and sharing of information and knowledge amongst Partner States. The GIS tools are used to support physical assessments in pollution data generation, including census, mapping and introduction of nonpoint-source in Lake Victoria and promotion of Cleaner Production technologies.

In all the East African Partner States, USAMF is being implemented in selected rural sub-counties within the Lake Victoria Basin. KENYA: In Kenya, the project is being implemented in the Siaya and Kisumu districts which consist of areas of traditional and transhumant herding, forest and farmland. GAMBIA: The project is also being implemented along the international bordering between Senegal Sub County in Western Region to Banjul Sub County in Western Region.

The Project is being implemented under six key sectors namely Fisheries, Water, Forestry, Environment, Agriculture and Livestock.

The specific objectives of CUSM 1 are to:

2. Improve the institutional management of state-owned natural resources of Lake Victoria Basin for the shared benefit of all partner states and;
3. reduce environmental stress in Lake Victoria basin's ecosystem integrity (in addressing the environmental stress by:-
- i. Control and generating point and non-point sources of pollution;
- ii. Assessing the health, critical and sensitive areas;



**Activities in This Book Modified by Student Council**

As Guest Lecturer with effect from 10<sup>th</sup> June, 2012 to 30<sup>th</sup> June, 2012 for comprehensive coordination of regular activities that were all pertaining to all the four faculties of UoW from 10<sup>th</sup> June, 2012.

The project is composed of the following four components:

**Component One** Strengthening institutional capacity for managing Shared Water and Fisheries Resources; **Component Two** Foster secure Fisheries owned and Managing; **Component Three** Enhanced Management and; **Component Four** Foster Confidence and Management.

The Project is being implemented through a three-tier structure as follows: (i) At the regional level, policy guidance is provided by the Regional Policy Steering Committee (RSPSC), (ii) At the national level, project implementation is guided by the National Policy Steering Committee (NPSC), (iii) National Technical Steering Committee (NTSC), the National Fiscal Board, Ministry (MOP) in Ministry of Environment, Water and Natural Resources (MOPWEN) and the National Project Coordination Team (NPCT). At the local level, implementation is coordinated by the Sub-County Project Coordination Teams (SCPCT) comprising of five members each.

**LVEMPU** = Kenya efforts in the Environment Sector

The Project has instituted several initiatives for environmental conservation and social welfare management within the main scope of these initiatives include the following:

### 1. Preparation of Wetland Management Plans

OWSP has prepared two Method Management Plans (MMPs) to compare where implementation will guide the investigation and collection of final report requested methods which occupy about 500 hrs. Other methods are Genetic, Immunologic, Ecologic and steps in the analysis of Kinase, Antibody and blood samples.

The expected output of this instruction is selection of required early selection through



Crowns enjoying a Wildland habitat at Vancouver  
in British Columbia.

process. The implementation of these Natural Management Plans will assist in guiding the natural resources conservation and fisheries improvement in the Bay watershed. The plans are meant to guide watersheds and riparian lands management of the watershed. The official launch of the management plans will be on 27 February during the World Water Day and subsequently in the conservation area.

### 3. Environmental Screening of Two Projects Activities

The Community Science Jobs projects implementation approach used by CSJSP is designed to have beneficial impacts on the environment through a novel algorithm to ensure sustainable management of the forest natural resource endowment, as a way of improving spatial conservation efficiency and provision of quality environmental services.

The Environmental and Social Management Framework (ESMF) used by UICAF is a expected to help in the screening, planning and review process.

**Synthetic**, or good or positive advice instrumental and social support. An intervention to reduce it conducted by two CIPs and extension agents to each village by using the ECHO (ECHO) and other income (from which address the effect of a stimulus on the environment).

In the case of ISO, all project activities (ISMP) are conducted through implementing activities oriented to four environmental aspects and conducted individual activities to prepare project reports for the implement activities. All the ISO Committee (from Bangladesh ISO) all projects that had been conducted for Environmental Impact Assessment (EIA) have been based with finance from UNDA. ISMP's description history, characteristics, where and forest resources, conducted through pattern to provide technical knowledge during subject, assessment and conservation.

The expected outcomes of implementing the sub-projects are (i) increased adoption of, and increased interest in, sustainable practices by participating communities in the targeted sub-counties; and (ii) reduced farming losses on the farmers' and other related resources and adherence to environmental standards and conditions.

### 2. Government screening of citizens

**Construction of new sanitary services**  
 Majority of the population living in the urban districts have still not access to modern sanitary facilities (latrines, septic tanks, and drainage). Provision of new sanitary services will support municipal authorities in their efforts to improve the health and hygiene of the population, and disposal of sewage in accordance with the municipal services standards, supporting the construction of a municipal water supply system in order to enhance the quality of life in the urban areas and to improve the public health, sanitation, and road communities. Majority will be given to public sanitation facilities, such as schools, health centres, banking facilities, and markets.

USFWS has entered into a nondiscriminatory fee negotiation priority lease and the plan for construction of age-defining devices identified (USFWS) has complied with the three basic requirements set by the Environmental Management, and Conservation Act (EMCA), and is in the process of making individual commitments to prepare project reports for the construction of aquatic wetland zones in selected areas in the Pacific northwest. The expected outcome is a reduction in the amount of treated water used in the Pacific northwest, by as much as 100 million gallons per day, and a reduction in the amount of treated water used in the Pacific northwest, by as much as 100 million gallons per day, and a reduction in the amount of treated water used in the Pacific northwest, by as much as 100 million gallons per day.

#### 4. Environmental screening of waste water treatment facilities

ESOP II is in the process of establishing selected wastewater treatment facilities in the counties of Santa, Maricopa and Pinal. The objective is to stabilize the wastewater treatment plants to reduce the large amount of effluent which also is receiving primary treated effluent discharged in non-authorized outfalls. The Project is

Media feature on the *Daily Nation* by the Ministry of Environment, Water and Natural Resources, LVEMP II Project, Kenya on 2 February 2014

## 2.0 Main Event in Busia: the National Celebrations

### 2.1 Cleanup of Busia Town

The National Organizing Committee planned a cleanup campaign in Busia town on the 1<sup>st</sup> February, 2014 to act as one of the awareness campaigns. A vehicle playing music traversed the town to sensitize town dwellers and the community members and the general public of the cleanup exercise and the link between wetlands and solid waste – wetlands such as Sio-Siteko act as the recipients of the town's wastes.



*2(a) Participants take part in the cleanup exercise in Busia town*

### 2.0 Procession

In order to draw the attention of the communities towards the event, the NOC planned a procession that started right at the River Siteko bridge, about 600metres from Busende Primary School, the venue where the event was held. A beautiful procession, combining the pupils, secondary school students, guests, *bodaboda* (cyclists) as well as the Sio-Siteko wetland community among others matched through the procession, led by the Busia Brass band from Uganda. The procession was flagged off by the Chief Guest, Dr. Alice Kaudia, the Environment Secretary, who was representing the cabinet Secretary, MEWNR.



*2(b) Dr Kaudia flags off the procession*



*2(c) Dignitaries, community members and school pupils proceed with the procession to venue*

### **2.3 Visit to the Sio-Siteko transboundary Wetland by dignitaries**

The dignitaries were given a wetland treat by visiting the Sio-siteko wetland, a few meters from the venue. A quick drive to the wetland was aimed at providing the guests, non-locals, with the opportunity of knowing where and what the Sio-siteko wetland is, the challenges and benefits of the wetland to the communities and the link to the theme. This was meant to enable the guest gain the real experience about one of the key services that wetlands deliver; food security. Thus the visit was bring the guests up-to-speed with realities of unsustainable agriculture as a key threat to wetland ecosystems in Kenya.





*2(d) Dr. Ondimu, NEMA with other dignitaries at Sio-siteko wetland*



*2(e) Dignitaries are taken around the wetland site*



*2(f) Mr. Stephen Katua, the Deputy Director Coastal Marine and Fresh waters sub-department NEMA, gives an account of Sio-siteko wetland to the dignitaries.*

#### **2.4 Kenya- Uganda Bicycle Competition**

Sio-siteko being a transboundary wetland shared between Kenya and Uganda and also provides numerous ecosystem goods and services; a bicycle race between Kenya and Uganda teams/cyclists was organized. This was one of ways/avenues to create awareness and sensitization about the importance of this wetland to the region. Cycling is one of the key livelihood activities carried by communities living around the border between Kenya and Uganda, Busia. This activity therefore resonated with the communities and helped reached many of them with the message of ensuring wetlands management and sustainable agriculture within and around wetlands. This was supported by the County Government of Busia.





*2(g) Mr. Wangalwa, the Deputy Governor, Busia County flags-off bodaboda competition*



*2(h) Bodaboda competitors start off the race*

## **2.5 Tree Planting**

Despite the prevailing dry weather, guests still managed to plant ceremonial trees to mark the occasion. The trees, mainly indigenous, were planted within the school compound to ensure survivability through watering by the pupils who adopted them. The headteacher was to take a supervisory role to ensure that the trees are grown to maturity.



*2(i) Dr. Kaudia, MEWNR, plants a tree to mark the celebrations*



*2(j) Prof. Wahungu, DG NEMA, plants a tree to mark the celebrations*



*2(k) Mr. Maluki, chairman NEMA board of management, plants a tree to mark the celebrations*

## **2.6 Exhibitions**

The event at Busende Primary School was enmeshed with several exhibitions displaying the benefits of a wetland ecosystem. Stakeholders demonstrated this through exhibitions on the wetland wise-use activities and products which was part of awareness creation.



*2(l) Dr. Alice Kaudia, the environment secretary Ministry of environment and Chief Guestis lead through part of exhibitions by Mrs. Betty Nzioka, the Deputy Director Environmental awareness NEMA during WWD 2014.*





*2(m) Right; Exhibition in form of trees species by the Kenya Forest Service; Left: Participants from LVEMP II give an account on wetland management and conservation in the Lake Victoria Bbasin.*

## **2.7 Entertainments**

There were various performances by school pupils and communities that highlighted the need to wisely-use our wetlands. A range of performances in form of songs, poems were done to depict the linkage between wetlands and Agriculture and the need to ensure sustainable wetland management. Primary school children did wonderful presentations and helped create the much needed awareness and consciousness regarding the roles of wetlands and the challenges they face, particularly in the face of a rapidly changing climate.



*2(n) A community women group entertains guests*



2(o) Left, Busia Brass Band, Uganda performs an acrobatic show; right: Representative of Chief Guest, Dr. Kaudia and the Hon. Wangalwa, the Deputy Governor, Busia County joins school pupils in a jig

## 2.8 Remarks and Speeches

In her keynote address delivered by Environment Secretary Dr. Alice Kaudia, Prof. Judi Wakhungu, the Cabinet Secretary, noted that in many parts of Kenya, wetlands have often been seen as a barrier to agriculture, and they continue to be drained and reclaimed to make farming land available. One of the succinct messages read by Dr. Kaudia was that people need to strike a balance between agriculture and wetland conservation in order to protect the wetlands from extinction.



2(p) Environment Secretary Dr Alice Kaudia delivers the keynote address on behalf of the Cabinet Secretary, Prof Judi Wakhungu.



“But the essential role of wetlands in support of agriculture is becoming clearer and there are successful agricultural practices which support healthy wetlands. This year’s theme is therefore meant to highlight this interdependency relationship between wetlands and good agriculture.”

She further reiterated that the annual celebrations are meant to raise public awareness of wetland values and their benefits and promote the conservation and wise use of wetlands in light of their role in supporting agriculture and ensuring food security in the country.

According to the Cabinet Secretary, the Millennium Ecosystem Assessment has shown that global food production has doubled in the past 40 years, to keep pace with the increasing human population. However, the assessment also showed that this major accomplishment has been realized at the expense of major losses in biodiversity, disruption of global element cycles, problematic eutrophication and toxification of our freshwater resources, and loss of regulating ecosystem functions. She therefore argued that it is important to strike a balance between agriculture and wetland conservation in order to protect the wetlands from extinction. The most effective solutions to the question of balance tend to be those that employ a combination of approaches, including: agricultural practices that help to reduce impacts on wetlands; development of multifunctional agro-ecosystems which are managed to provide the broadest possible range of wetland ecosystem services; and restoration of wetlands to provide functions and services in agricultural landscapes.

She affirmed that the Environment Ministry recognized that wetlands are a key resource in the country’s socio-economic development and the attainment of Vision 2030 though many were in the real danger of disappearing due to human population pressure, urban growth, infrastructure development and unplanned settlement and that the wise use of wetlands is essential for supporting sustainable agriculture production.

She indicated that the Government of Kenya through the ministry of Environment had put up austerity measures to ensure that our wetlands are protected and conserved from degradation activity resulting from land use changes.



*2(q) The dignitaries when they visited the NEMA stand during the World Wetlands Day held at Busende Primary School in Busia County.*

These measures included: formulation and enactment of Wetlands Regulation, 2009 to guide the country on sustainable wetlands management and conservation by promoting wetland wise use; wetlands mapping to produce the first Kenyan Wetlands Atlas that gives the spatial and temporal changes in some of the wetlands in the Country; the launch of a Master Plan for the Conservation and Management of water Catchment areas. The measures set out in the master plan bring to the fore practical and attainable actions that can be implemented so as to curb wetland degradation resulting from both human activities.

On his part, Prof. Geoffrey Wahungu, the Director General NEMA noted that the Authority is aware of the Sio-Siteko Transboundary management plan which was developed through a consultant hired by Nile Basin Initiative. He however, expressed his dissatisfaction since nothing much has been done in implementing the provisions of the management plan.

He vowed that the Authority will work with the county governments to ensure that the plan is implemented. “NEMA commits to work with the County Governments of Busia and Bungoma in ensuring that the vision as stated in the management plan is attained.”



*2(r) NEMA DG Prof Geoffrey Wahungu introduces key stakeholders that NEMA closely works with during the WWD 2014.*

He also urged the local communities to work with the county governments saying “I urge you to work closely with County and National Governments, in exploring the possible sustainable agricultural activities within Sio-Siteko and Sio-Malakisi wetlands as a way of enhancing your livelihoods through value addition to the agricultural products and services, which should be a realization of the Country’s Economic Vision and Strategy under Vision 2030.”

He thanked the National and Local Organizing Committees as well as all stakeholders for their efforts and contributions for ensuring a successful organization and commemoration of World Wetlands Day 2014 at Busende Primary School in Busia County.

Mr. Maluki Mwendwa, the Chairman NEMA board of management cautioned the local communities to undertake farming and other related agricultural activities sustainably.

“Agricultural activities should be done sustainably to so to minimize pressure on this important natural ecosystems. While we harness and develop the agriculture potential of wetlands in our pursuit of Kenya Vision 2030, we must monitor and stop the negative implications which may result from our activities.”



*2(s) NEMA Board Chairman Mr. Maluki Mwendwa makes his speech.*

He cited overfishing, excessive hunting of birds and animals, over abstraction of water, pollution due to excessive fertilizers and reclamation or complete drainage of wetlands as some of the negative aspects that could emerge as outcomes due to an excessive load on wetlands therefore completely destroying them.

These sentiments were also echoed by Deputy Governor for Busia County Mr. Kizito Wangalwa, who represented the area governor Mr. Sospeter Ojaamong at the national celebrations.

“We are yet to discover other precious minerals in our county even if explorations of Samia Hills for coal and iron ore are ongoing. So for the time being, our natural resources in the county remain such resources as the Sio wetlands”.



*2(t) Busia Deputy Governor Mr. Kizito Wangalwa welcomes the guest of honor to make the key note address the national celebrations.*



Occasionally switching into the native Luhya dialect perhaps to clearly drive the point home, he asked the area residents to avoid the temptation to sell their land for short time gains. “Our land is our resource and we must make it count for our county to develop”.

The Director General, NEMA, Prof. Wahungu on his part reminded everyone of the importance of the celebration to raise awareness about the importance of wetlands and ecosystem at large. He maintained that agricultural activities should be put to check to ensure that the dignity of wetlands is maintained. He highlighted some of the efforts that had been made by NEMA in ensuring that wetlands are properly conserved and managed. This included; development of wetland management plans for Ol Bollosat, Lake Jipe, sio-siteko, Ombeyi, Tionosoyiet, Kingwal and Kibirong wetlands; and wetland mapping exercises which culminated to the production of the national wetland atlas. He urged the wetland management plan implementation committees for various wetlands to help in mobilizing funds to ensure their full implementation. He highlighted that NEMA intended to regulate sand harvesting in wetlands through environmental Audit and mentioned the activities to be undertaken which included; delineation of boundaries, controlled harvesting of resources and tree planting.

The representative of Lake Victoria Basin Commission, Dr. Mngodo on his part highlighted various conservation initiatives undertaken by LVBC. He mentioned that LVBC closely works with the community members through community driven developments subprojects to address wetland degradation in the basin. He highlighted the importance of community members to understand and participate in wetlands management and further encouraged the community members and county government to push the agenda of natural resource conservation.



*2(u) The representative of LVBC while giving a speech during the WWD 2014 celebrations*

The representative of the Danish embassy, Ms. Isabela Masinde thanked the Government of Kenya for cooperating with the government of Denmark to ensure that wetlands are properly conserved and managed in the country. She highlighted



some of the support and efforts by the Danish government, which included the publication of the Kenya wetland atlas. She indicated that the Blue swallow bird which is not a native bird to Sio-siteko wetland has always visited the wetland and thus the importance of the wetland.



*2(v) The representative of Danish Embassy while giving her speech during the WWD 2014 celebrations.*

The program Manager, Wetlands International, Ms. Julie Mulonga, reiterated the importance of wetland wise use as one of the key resolutions to Ramsar convention. She pointed out that many wetlands face threats from human actions and believed that the solution lies with the community members who live near the wetland. Giving a case study of Ecosystem Alliance Programme in Tana Delta where the community members are highly involved in the conservation and protection of wetlands, she believed that with full community involvement and stakeholder collaboration wetlands can be sustainably managed.

.



*2(w) The program manager, Wetland International while giving her speech during the WWD 2014 celebrations.*

## **2.9 Awards**

Awards were given to schools, cyclists and community members who ensured that the day was a success. This was intended to promote wise-use of wetlands and to appreciate those individuals and institutions that have done commendable work in ensuring sustainable management and utilization of wetland resources.



*2(x) Prof. Wahungu, Director General NEMA issues a certificate of participation to a member of Busia Brass band during the WWD 2014 celebrations.*



*2(y) Mr. Wangalwa, the Deputy Governor Busia County presents a token to Mr. Moses Bwire, the best cyclist during the WWD 2014 celebrations.*



*2(z) Dr. Kaudia, the Environment Secretary MEWNR, while presenting a copy of wetland atlas to headteacher Busende primary school.*