



 Image: Second state state

The development objective of the Nile Basin Climate Resilience Growth Project is, **'to strengthen cooperative water resources management and development to facilitate climate resilient growth in the Nile Basin'.** 

he Nile Basin Initiative has developed the Nile Basin Climate Resilient Growth (NBCRG) Project consisting of two phases to be implemented over a period of seven years starting January 2013. The NBCRG Project is in line with NBI's Strategic Plan (2012-2016). It will enhance NBI's contribution towards the longer-term Shared Vision, 'to achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources.'

NBI recognises that climate change impacts and other regional challenges are best

addressed through regional approaches, and therefore provides that unique platform for dialogue and negotiation to promote regional/trans-boundary perspectives in national planning and development. The NBCRG Project is therefore timely; as it will enhance the capability of the NBI Member States to take advantage of the opportunities provided by the River Nile Basin for win-win cooperative development. The opportunities include: food and energy production and cross-border trade; transport; industrial growth; as well as environment conservation. The project will also contribute to addressing key challenges faced by the countries such as environmental degradation, limited trans-

>> CONTINUED ON PAGE 3

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#### **2** MESSAGE FROM THE EXECUTIVE DIRECTOR



elcome to the second issue of the 2012 Nile News, one of our major channels of communication with our stakeholders and the rest of the world.

This is the last issue for me to communicate to you in my capacity as the Executive Director of the Nile Basin Initiative Secretariat. Since I came on board in September 2010, I have learned a great deal about our Institution and its shared vision and values, the people in our region, and the motivation that drives our Development Partners to continue to support the Nile Basin Initiative to achieve its Shared Vision and to realize tangible benefits for the basin people.

The Nile Basin Initiative has embarked on a transiting phase towards a future permanent Nile River Basin Commission following a success Institutional Design Study which aimed at making a diagnosis of the current institutional architecture, arrangements, operations, practices and financial situation, collaboration linkages with the relevant organizations in Africa as well as identifying feasible and efficient arrangements for the future.

At Nile Basin Initiative we -as NBI institutions- fully believe in and work hard toward facilitating dialogue amongst the Nile Basin countries on joint development and management of shared Nile Basin water resources, and to analyze water resources management and development projects at basin, sub-basin and national levels through the Nile Basin Decision Support System; which will be ready for Member States to use by August 2012. With the support of our Development Partners, the Nile Basin Initiative is and remains instrumental in facilitating, supporting and nurturing cooperation amongst the Member States, and in promoting timely and efficient joint actions required for securing significant benefit to the riparian population. The Nile Basin Initiative platform enables its Member States to continue to benefit from opportunities of cooperative water resources management and development in the basin, building on the USD 1.2 billion already leveraged in investment to date. cover the minimum functionality of the NBI over a period of five years. I call upon the Nile Council of Ministers to consider increasing the Member States contribution to NBI for immediate actions on the national levels in order to operationalize the scaling-up of country contribution as soon as possible - by the fiscal year 2013/2014.

With our extensive experience in integrated water resources management and development, the Nile Basin Initiative is in a unique position to continue to provide support

Since I came on board in September 2010, I have learned a great deal about our Institution and its shared vision and values, the people in our region, and the motivation that drives our Development Partners to continue to support the Nile Basin Initiative to achieve its Shared Vision.

The financial sustainability and the impacts of the current political situation due to the Cooperative Framework Agreement are among the key challenges the organization is facing, but some mitigation measures have been put in place to allow NBI to move forward toward the realization of its Shared Vision.

NBI Member States showed already their determination to remain committed to support its programs and operations in an inclusive manner, and to continue providing strong leadership to the NBI business, to clear the remaining arrears and to also increase their country contribution (which has remained the same amount since the establishment of NBI in 1999 up till now), in order to collectively to Member States to tackle energy, agriculture and food security challenges and to improve the livelihoods of their people.

Wilkhain

WAEL KHAIRY (DR.) EXECUTIVE DIRECTOR

#### >> continued from page 1



boundary context in national planning, climate variability and change, and ultimately poverty, insecurity and instability.

The NBCRG Project is even more critical for the rain-fed agriculture, which is the backbone of most Nile Basin countries' economies, (with over 87 % of cultivated land in the Nile Basin under rain-fed agriculture, and contributing on average 30% of the GDP and employing 68 % of the population), is heavily affected by the increasingly incessant and unpredictable droughts and floods with serious consequences.

Phase one of the project worth about USD 15 million will be implemented in two years (2013-2014) and will focus on the following three components to be implemented by the three NBI Centers (Nile-Sec, ENTRO, NELSAP-CU) and the NBI member States:

#### 1. Advance Nile-Wide Cooperation and Analysis

The aim of this component is to strengthen basin cooperation and provide tools, knowledge products and analysis to increase shared understanding of the Nile River system. This component will be implemented by the NBI Secretariat (Nile-Sec).

2. Promote Sustainable Planning and Development in the Eastern Nile Region The focus of this component is to widen Eastern Nile Technical Regional Office (ENTRO)'s stakeholder base beyond the Ministries of Water (given the challenges in sub-basin hydro-politics), to include power, agriculture, universities, to ensure that they have the capacity and tools needed to manage and develop the sub-basin responsibly, and to provide information to illustrate the possibilities for enhanced cooperation. This component will be implemented by the ENTRO

#### 3. Promote Sustainable Planning and Development in the Nile Equatorial Lakes Region

This component will focus on identifying opportunities to advance responsible and sustainable development, fostering agreement on potential new projects and preparing projects of regional significance up to pre-feasibility level. This component will be implemented by the Nile Equatorial lakes Subsidiary Action Program Coordination Unit (NELSAP-CU). in International Waters in Africa (CIWA) Program, which was designed to respond to the requirements of organizations engaged in international waters and to promote collaboration and development, with the goal "To unlock potential for climate resilient growth through cooperation".

## The NBCRG Project will support growth in the long-term through;

- Preparation of infrastructure projects (e.g. hydropower)
- Further development of the knowledge base and tools to support water-related investment planning decisions in sectors that are critical to the Basin's growth (storage, hydropower, irrigation, etc.)
- Building capacities of institutions (e.g. on dam safety) for well-designed infrastructure investments.
- Enabling regional cooperation investments that can support additional growth-oriented investments.

### The project will also support climate resilience in the long-term through;

- Support for design of an integrated public-domain hydro-meteorological and forecasting/early warning system for the Nile Basin to improve system operations and to better manage floods/droughts.
- Support for knowledge and analysis products relating to climate variability and change.
- Building capacity on mainstreaming climate resilience in water resources development.

## To complete project preparation and processing for effectiveness, the following actions are planned to take place in the remaining period of 2012:

August	Appraisal mission (NBTF, CIWA, GIZ)
September	Negotiations
November	World Bank Board Review for Approval
December	Project Effectiveness

Phase two worth an estimated USD30 million will upscale and expand the work of phase one and will be implemented over a five year period (2015 - 2019).

The NBCRG project is supported by the World Bank through its 'Cooperation

Facilitating cooperation of shared regional/sub-regional approaches to climate adaptation.

#### **BY JOHN K. OGWANG**

REGIONAL M&E SPECIALIST NILE-SEC, ENTEBBE

## Rwanda to take over Chairmanship of the Nile Council of Ministers



wanda will this July take over the position of chairperson of the Nile Council of Ministers (Nile-COM), the highest governing body of the Nile Basin Initiative (NBI). The Nile-COM is comprised of Ministers in charge of Water Affairs in the

## Stakeholders discuss the future of Nile Basin Initiative

nine NBI Member States, namely Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda.

Rwanda's Minister of Water, Environment and Natural Resources Hon. Ambassador Stanislas Kamanzi will succeed Hon. Charity Kaluki Ngilu, Kenya's Minister of Water and Irrigation who has been Chairperson of the Nile-COM for one year since July 2011.

It is a tradition in NBI to rotate the position of Chairperson of the Nile Council of Ministers every one year, among Member States in alphabetical order.

Hon. Amb. Kamanzi holds a Master's Degree in Environment and Development, from the University of Natal/South Africa. He specializes in Geographical Information Systems and Water Resources Management.



regional workshop to deliberate on the institutional arrangements recommended under the Institutional Design Study (IDS) Phase 1 was held at the Imperial Golf View Hotel, In Entebbe on 13<sup>th</sup> and 14<sup>th</sup> June 2012. The Workshop was part of the planned activities under Institutional Design Studies Phase 2. Key stakeholders, who included Permanent Secretaries from Ministries incharge of Water Affairs in Nile Basin Initiative Member States, engaged in very fruitful discussions paving way for the future Nile

River Basin Organization.

Structured around two major items that is (a) Recommendations from IDS phase 1 regarding strengthening NBI, and (b) Choosing an institutional arrangement from options for the Nile River Basin Commission, the workshop enabled facilitated discussions on the choice of the future Nile River Basin Commission and modalities for engaging all riparian states.

Participants converged on the preferred option for the Nile River Basin Commission

and recommended certain considerations that included: the NRBC should not have capacity below the current NBI, to adopt staged growth and to operate within available resources. The findings of the workshop will be presented to the NBI governance for guidance on the way forward.

#### BY TOM WAAKO

PROJECTS OFFICER NILE-SEC - ENTEBBE, UGANDA

# Water Resources Management Unit at the Secretariat fully established

One of the key outcomes of the soon closing (December 2012) Institutional Strengthening Project (ISP) is the establishment of a water resources management function at the NBI Secretariat. This function includes developing basin wide policies, expanding the knowledge base, providing expert analytical services using the Nile Decision Support System (Nile DSS), as well as monitoring the state of the River Nile Basin. This function will be implemented by the now fully established Water Resources Management Unit, comprising the head of the unit, supported by three regional specialists for modelling, database management, and policy, respectively. Nile News introduces to you the three new staff of this unit.



**Dr. Abdulkarim Seid** is the Head of Unit, providing strategic analytical capacity to support Nile Basin water resources management, planning and development. This is in addition to leading and managing the water resources planning as well as knowledge and policy functions. He will effectively take this position starting January 2013.

Dr. Seid has over two decades of interdisciplinary, multi-cultural and international experiences in the water resources sector, which covers consultancy, research, project management and academia. His more recent (last seven years) of senior level work at the NBI pertains to the development of a regional Nile Basin Decision Support System (Nile Basin-DSS). This has been while working for the NBI's Water Resources Planning and Management (WRPM) Project. Before joining the NBI-WRPM project, Dr. Seid worked for two years as Regional Project Coordinator for two projects in ENTRO.

Dr. Seid obtained his PhD in civil engineering (Rainfall-Runoff modeling) from the University of Technology - Darmstadt, Germany. He graduated with MSc in Water Resources Systems Engineering from the University Of Newcastle Upon Tyne, UK and earned his first degree in Civil Engineering from Addis Ababa University. He also obtained certification on Knowledge Management from the Knowledge Management Institute (KMI) in Washington DC, USA.



**Mr. Ephrem Getahun Hailu** is the Regional Database Specialist responsible for monitoring, upgrading and maintenance of the Nile Basin Decision Support System.

He joined the Secretariat on 1st May 2012 but he is not new to the NBI family, having worked for the Water Resources Planning and Management Project as IT/Database/ GIS/ Knowledge Management Specialist from August 2006 to September 2011. He brings to the Secretariat over 10 years of working experience in the development of information systems, knowledge management and database management.

Mr. Getahun has a Master of Science degree in Agriculture (Soil Science) from the University of Sydney, Australia and a Bachelor of Science degree in Agriculture (Agriculture Engineering) from Alemaya University of Agriculture in Alemaya, Ethiopia. He also has a Post Graduate Diploma in Computer Science from HiLCOE School of Computer Science and Technology in Addis Ababa, Ethiopia and is currently writing his thesis for a Master of Science degree in Software Engineering at the same School. He is a Certified Knowledge Manager (CKM) from the Knowledge Management Institute (KMI) in Washington DC, USA.



**Dr. Mohammed A.A. Mohamed Hassan** joined the Nile Basin Initiative on 14<sup>th</sup> April 2012 as the Regional Water Resources Modelling Specialist. He will lead the analytical work in the Water Resources Management Unit focusing on the operational use and further customization and refinement of the Nile Basin-DSS. He will also provide Help Desk Services to other specialists working with the Nile Basin-DSS at other NBI centers and offices.

Dr. Hassan joins the Water Resources Management Unit with 20 years of experience in water resources modelling, hydrological forecasting, computer programming, GIS and remote sensing.

Dr. Hassan holds a Doctors of Philosophy degree from Open University in the UK; a Master of Science degree in Hydroinformatics obtained from IHE Institute for Water Education in Delft, The Netherlands and a Bachelor of Science Degree in Civil Engineering from Cairo University in Egypt.

The Secretariat staff welcome Dr. Abdulkarim, Mr. Getahun and Dr. Hassan to Entebbe.

#### **BY JANE KYOMUHENDO BAITWA**

REGIONAL COMMUNICATION SPECIALIST NILE-SEC - ENTEBBE

#### **6** NEWS HIGHLIGHTS

## Nile-Sec staff engage in Strategic Planning for the period 2012 - 2016



ile-Sec staff recently engaged in a workshop to discuss and familiarise themselves with the draft Nile-SEC Strategic Plan for the period 2012-2016.

The workshop held from 17<sup>th</sup> to 18<sup>th</sup> May, 2012 at Lake Victoria Serena Hotel, near Kampala also discussed at the overarching NBI Strategic Plan for the period 2012 to 2016. The draft Nile-SEC Strategic Plan as well as the overarching NBI Strategic Plan will be presented to the NBI governance in July 2012, for approval.

BY JANE KYOMUHENDO BAITWA REGIONAL COMMUNICATION SPECIALIST NILE-SEC - ENTEBBE

## NBI Senior Management reviews key strategic issues to be considered during upcoming governance meetings

enior Management from the three Nile Basin Initiative (NBI) centers (Nile-Sec, ENTRO and NELSAP-CU) met in their 13<sup>th</sup> Coordination Meeting to review key strategic issues to be considered by the July 2012 NBI Governance meetings. The issues included the overarching five- year Strategic Action Program II, the five-year Nile-Sec Strategic Action Plan as well as outputs of major studies under the Institutional Strengthening Project (ISP) namely, the Institutional Design Study and Human Resources Study.

The above issues will be discussed during the annual 20<sup>th</sup> regular Nile Council of Ministers (Nile-COM) Meeting on 5<sup>th</sup> July 2012 and the

36<sup>th</sup> Nile Technical Advisory Committee (Nile-TAC) Meeting taking place earlier, from 2<sup>nd</sup> to 4<sup>th</sup> July, 2012. Both meetings will take place in Kigali, Rwanda.

The Coordination meeting also discussed the proposed Nile Basin Climate Resilient Growth Project, a new initiative to succeed the ISP which is due to close on 31<sup>st</sup> December, 2012. Efforts have been made to prepare new successor initiatives that respond to the current context and challenges of NBI.

Last but not least, the meeting took a critical examination of the coordination among the three NBI centers and generated Ideas for enhancing the coordination, with emphasis on strengthening coordination among the technical teams.

The 13<sup>th</sup> NBI Coordination Meeting was held from 15<sup>th</sup> and 16<sup>th</sup> June, 2012 in Entebbe, Uganda. The Coordination meetings, held once every six months, are important fora that bring together management staff from the three NBI centers to update each other on the progress of activities, plan the way forward and consider synergies.

#### **BY TOM WAAKO**

PROJECTS OFFICER NILE-SEC - ENTEBBE, UGANDA

## MARA RIVER BASIN MANAGEMENT PROJECT Improving living conditions of the basin communities and protecting the environment



#### PROJECT OBJECTIVES

- Establish a sustainable cooperative framework for the joint management of the shared water resources of the Mara River Basin.
- Develop an investment strategy and conduct pre-feasibility and feasibility studies.
- Build capacity at all levels for sustainable management and development of Mara River Basin.
- Implement small-scale investment projects to build early confidence among the Mara River Basin communities.

he Mara River Basin is shared by Kenya and Tanzania. The basin is experiencing environmental degradation, primarily because of increasing population pressure. This has led to deforestation, increased soil erosion, increased effluent discharges into the river, pollution from mining activities, and threats to fishing in the lower reaches of the river. The environmental degradation of the basin is closely linked to its socio-economic development. Poverty leads to over-use of the basin's resources, while the degradation reduces the ability of the resource base to provide a sustainable livelihood. These issues cross national borders and require 'a whole of' basin approach to their management. It is in recognition of the above threats that the Mara River Basin Management Project is developing a framework for trans-boundary development and management of the water resources of the basin, so that subsequent development oriented investments will be sustainable in the long-term. The project is also preparing proposals for such development investment for subsequent

The Mara River Basin Management Project has generated a number of benefits some of which have already been realized by the two countries while others are in the pipeline.

REALISED BENEFITS						
Kenya	Tanzania					
<ul> <li>At least 10,000 residents of Bomet town supplied with clean and safe water following construction of the Bomet water supply providing 1,200m<sup>3</sup> per day.</li> <li>Over 10,000 people in Teso district supplied with clean and safe water through the Angurai Water and Sanitation project.</li> <li>Pollution control and solid waste management in Malaba Town benefiting 500,000 town dwellers</li> <li>Hydro meteorological monitoring stations installed along Mara River.</li> <li>Trans-boundary policy frameworks, policies, guidelines, data and information base for water resources management developed.</li> </ul>	<ul> <li>More than 5,000 residents provided with water for irrigation, livestock and domestic purposes as a result of construction of Bisarwi small holder irrigation dam.</li> <li>At least 10,000 residents of Kayanga town, Karagwe district provided with clean water following construction of Kayanga water supply system.</li> <li>Hydro meteorological monitoring stations installed along Mara River.</li> <li>Trans-boundary policy frameworks, policies, guidelines, data and informa- tion base for water resources management developed.</li> </ul>					
Potential Benefits (Kenya & Tanzania)						
<ul> <li>Framework for trans-boundary sustainable joint management of the Mara River sub-basin, enhancing cooperation between the two countries.</li> <li>Increased power production, accessibility and reliability, leading to economic growth and better quality of life.</li> <li>Enhanced watershed management leading to increased land productivity, food security, water conservation as well as increased and good quality flows.</li> <li>Enhanced management and income from tourism and wildlife.</li> <li>Enhanced and sustainable utilization of wetland products for improved livelihoods.</li> </ul>						

- Expansion of irrigated agriculture, improved productivity of existing small and large scale agriculture through efficient water use.
- Norera and Borenga medium dams in Kenya and Tanzania respectively will provide water for irrigation, domestic water supply, fisheries and flood control.
- Better positioning to adapt to climate change through water infrastructure projects.



#### **8** OUR VALUE ADDITION

funding. The Mara River Basin Management Project is coordinated under NBI's Nile Equatorial Lakes Subsidiary Action Program Coordination Unit, based in Kigali, Rwanda. The Project Management Unit is located in Musoma, Tanzania. In Kenya, the project operates in the districts of Molo, Bomet, Narok South, Chepalungu and Transmara East while in Tanzania, it is in the districts of Tarime, Serengeti, Musoma and Rorya.

The role of NBI includes the following:

- Harmonizing the legal, institutional and policy frameworks for the two beneficiary countries.
- Identifying large scale development investment opportunities in the basin.
- Conducting pre-feasibility and feasibility studies for the identified large-scale development projects.
- Training staff at national and basin levels.
- Sensitizing the community about environmental management issues and development options.
- Establishing basin wide sustainable hydro-meteorological network and baseline for water quality.
- Implementing selected small-scale irrigation, water supply and environmental management projects.

#### **JOSEPH K. TERER**

PROJECT MANAGER MARA RIVER BASIN MANAGEMENT PROJECT MUSOMA, TANZANIA

## Egypt, Ethiopia and Sudan in joint efforts to address watershed degradation in the Eastern Nile

Through the Eastern Nile Watershed Management Project, Egypt, Ethiopia and Sudan have jointly devised comprehensive interventions that contribute to poverty alleviation and improvement of living conditions of the people that depend on these watersheds. The Eastern Nile Watershed Management Project is one of the priority projects identified by the three Eastern Nile countries and is coordinated by NBI's Eastern Nile Technical Regional Office (ENTRO) based in Addis Ababa, Ethiopia.

he Eastern Nile watersheds especially the steeper, upper Ethiopian highlands are severely degraded due to poverty-driven over exploitation of natural resources and they constitute the most critical clusters of watershed hotspots, without whose prior restoration all future water resources infrastructure development and management will be rendered of limited economic benefit to any one of the three countries.

The annual economic cost of watershed degradation in Ethiopia is currently estimated at USD 670 million and expected to reach at least USD 4.5 billion in 25 years unless the problem is addressed urgently. Watershed degradation impacts are not confined in the Ethiopian highlands, but run all along downstream in Sudan and Egypt. Between 157.2 and 207.2 million tons of sediment are transported annually from the Ethiopian highlands along the Blue Nile, Tekeze and Sobat main sub-basins of the Nile. These sediments entail huge costs also downstream in Sudan and Egypt, including hydropower underperformance, high infrastructure maintenance costs and dredging costs of clogged irrigation channels.

Integrated watershed management - a system of multifaceted interventions -(e.g. increasing agricultural productivity through improved farming systems, marketing, education, health care, energy supply, alternative employment, population policy, etc.) - that target poverty alleviation and enhancement of sustainable

livelihoods, is the proven way to address the root causes of watershed degradation. This is exactly what Egypt, Ethiopia and Sudan are promoting through the Eastern Nile Watershed Management Project coordinated by NBI's Eastern Nile Technical Regional Office (ENTRO).

The NBI, working together with officials from the Ministries in charge of Water Affairs from each of the three countries who take the lead, is responsible for the following, among others:

#### **PROJECT OBJECTIVE**

Increase adoption of sustainable land and water resource management practices through the following:

- Building national capacity; facilitating stakeholder consultation as well as information and knowledge sharing.
- Establishing a long-term coordinated system of monitoring and knowledge development for effective watershed planning.
- Conducting detailed project preparation for the Eastern Nile watersheds hot spots in an investment ready format.
  - Providing a political and technical platform for consultation among Egypt, Ethiopia and Sudan.
  - Establishing the baseline and characterizing the watershed system.
  - Working out the environmental, social and economic distribution among the three Eastern Nile countries, of the positive and negative effects arising from the watershed management interventions. Identifying critical hotspots and

"Before this project (Read: The Eastern Nile Watershed Management Project), we started our conservation work at the farm land in the valleys and plains. But every year, floods originating from the hilltops used to wash away the terraces and our conservation work. However, since this project was introduced, we start our conservation work from the hilltop and progressively move down to the farm land in the valleys. This has progressively reduced the volume of the floods and the terraces are able to withstand successive floods. The community now understands the benefit of the new approach introduced by the project and is now participating with enthusiasm." – **Desalgne Gelaw, Community Facilitator, Tana Beles Project.** 

watershed management investment projects for national implementation.

- Identifying the institutional requirements and implications for a basin wide watershed intervention.
- Preparing watershed management investment projects.

joint investment, which are critical for future water resources development infrastructure (e.g. dams) in the region. Eight watershed projects in the three countries are under implementation, one of which is cross-border (Lake Nasser-Nubia Watershed Management Investment our conservation work at the farm land in the valleys and plains. But every year, floods originating from the hilltops used to wash away the terraces and our conservation work. However, since this project was introduced, we start our conservation work from the hilltop and progressively move down to the farm land



- Establishing basin wide sediment and water quality monitoring system, and.
- Enhancing regional capacity and coordination.

#### **RESULTS TO-DATE**

The Eastern Nile Watershed Project has so far achieved commendable results including the following:

- Shared i.e. regional understanding of the watershed problem and the three countries' commitment for joint action.
- Identification of a long-term watershed program for Eastern Nile including investment projects, capacity building and institution building.
- · Identification of watershed hotspots for

Project).

Securing investment for the projects (loans and grants) from development partners and from national government budget.

#### LOOKING AHEAD

The project will work toward sustaining the regional added value i.e. the process of cooperation and the expansion of the results (programs and projects) as well as maintain the core approach of centring its activities around improving livelihoods, for it is threatened livelihoods ultimately that drive watershed degradation.

"Before this project (Read: The Eastern Nile Watershed Management Project), we started in the valleys. This has progressively reduced the volume of the floods and the terraces are able to withstand successive floods. The community now understands the benefit of the new approach introduced by the project and is now participating with enthusiasm." -Desalgne Gelaw, Community Facilitator, Tana Beles Project.

#### **BY WUBALEM FEKADE**

HEAD, SOCIAL DEVELOPMENT AND COMMUNICATION UNIT (ENTRO, ADDIS ABABA) &

#### **BY JANE KYOMUHENDO BAITWA**

REGIONAL COMMUNICATION SPECIALIST (NILE-SEC, ENTEBBE)

## Uganda to use the Nile Basin Decision Support System for Water Resources Planning

he Nile Basin Decision Support System (Nile Basin-DSS) is a stateof-the-art tool providing Nile Basin Initiative (NBI) Member States with a common analytic platform and knowledge base to support the cooperative development and management of the Nile Basin water resources.

The Nile Basin Initiative (NBI) in collaboration with Member States has piloted the tool to answer questions relating to the physical system of the Nile including river flow patterns, past and present trends in climatic variables versus stream flows, and the water balance in different parts of the system. More importantly, the Nile Basin-DSS is being used to answer questions about expected benefits and potential impacts of planned development interventions.

Uganda, through the Directorate of Water Resources Management has so far used the Nile Basin-DSS to conduct two pilot studies. The first pilot case was on 'Improved water resources utilization in the Mobuku-Sebwe catchments in Western Uganda'. The objective of this pilot case was to find solutions to escalating pressures on water resources in the Mobuku-Sebwe Catchments arising from increased competition among different water uses as a result of population growth, increased industrialization and the need for improved socio-economic well being. The figure 1 shows sample results.

The second pilot case was on 'Water use in Kyoga Basin and its effects to proposed downstream hydro power development'. Owing to increased pressure for food production due to increasing population growth coupled with inconsistent climate patterns, there has been evident need to practice irrigation for increased food productivity. The Kyoga basin has potential sites for irrigation which have so far not been utilized. However, due to the increased need for food production, the total area under irrigation is expected to increase accordingly and this might have impact on the downstream planned hydropower developments in the Kyoga Nile; Karuma, Ayago, and Murchison hydropower plants.

The Nile Basin-DSS was applied on this case with the objective of examining the effects of water use for irrigation in the Kyoga basin, on downstream hydropower developments in the Kyoga Nile. It was discovered that projected irrigation in the Kyoga basin has little impact on the Nile flows and the power production in the Kyoga Nile. As a result, introducing reservoirs within the basin to take care of irrigation was recommended. However, the benefits of these development scenarios have to be weighed against the irrigation returns.

#### Preparing Catchment Based Investment

Plans with the help of the World Bank - It has been decided that tools to enhance proper catchment planning and management be used and the Nile Basin-DSS has been identified as the appropriate tool for use in integrated catchment planning and management and shall therefore be applied once the guidelines are ready in September 2012.

#### Setting up a Water Information System (WIS) – This System will involve all the four



### Figure 1 – Comparion of irrigation reliability and total firm power for all scenarios

### PLAN TO USE THE NILE BASIN DECISION SUPPORT SYSTEM

Following the pilot cases, the Directorate of Water Resources Management is now planning to use the Nile Basin-DSS in various undertakings. The following have so far been identified:

#### Preparing a Water Resources Development

and Management Strategy - This Strategy, which is a master plan for water resources development and management, requires integrated methodological frameworks, processes and tools which can manage complex dynamic systems like river basins. The Nile Basin-DSS tool is very useful in such an undertaking. Water Management Zones in the four regions of the country as well as the Central office in Entebbe. Data and studies conducted in the four Water Management Zones will have to be accessed by the central office so as to provide assistance and advice as and when needed.

#### **BY BENJAMIN SSEKAMULI**

NATIONAL DECISION SUPPORT SYSTEM - UGANDA &

#### SOWED SSEWAGUDDE

SENIOR WATER OFFICER- INTERNATIONAL AND TRANS-BOUNDARY WATER MANAGEMENT, MINISTRY OF WATER AND ENVIRONMENT - UGANDA

## Why you should be interested...



#### NBI to launch first ever State of the River Nile Basin Report

Experience has shown that the operation of common basin monitoring tools can contribute to mutual trust and joint policy making. The NBI has prepared the first ever State of the River Nile Basin Report, which among other things is expected to generate discussion among NBI Member States on broad basin issues and trigger common policy interventions to address challenges. The Final version of the report is expected in October 2012.

This strategic-level document presents a basin-wide picture of prevailing physical and socio-economic conditions, pressures and threats to the water and environmental resources of the Nile basin, the potential of the water and related natural resources of the basin to meet common development goals as well as opportunities for collaboration between Member States to solve common problems and reach win-win outcomes.

The report provides an invaluable summary of key indicators of the health of the Nile Basin to inform decision-makers, Members of Parliament, senior government officials and the general public, and can be used to inform decision-making on the management of the river system. The first edition presents a baseline for the basin while subsequent reports to be published every three years will show trends over time.

#### **BY JANE KYOMUHENDO BAITWA**

**REGIONAL COMMUNICATION SPECIALIST (NILE-SEC, ENTEBBE)** 

## **Nile Basin Country Statistics**

Country	Total Area(GIS)	Area in the Nile Basin	% of total Basin Area	% of Total Country Area	*Country Population 2012	Population in the Nile Basin 2012	Percentage of country population living in the Nile Basin 2012
Burundi	28,062	13,860	0.44	49.39	8,749,387	5,147,477	58.8%
DR Congo	2,401,941	21,796	0.69	0.91	69,575,394	2,643,865	3.8%
Egypt	996,960	302,452	9.52	30.34	83,958,369	80,377,080	95.7%
Eritrea	121,722	25,697	0.81	21.11	5,580,862	2,096,985	37.6%
Ethiopia	1,144,035	365,318	11.50	31.93	86,538,534	34,862,524	40.3%
Kenya	593,116	51,363	1.62	8.66	42,749,418	16,962,930	39.7%
Rwanda	24,550	20,625	0.65	84.01	11,271,786	9,310,974	82.6%
South Sudan	635,150	620,626	19.54	97.71	9,614,498	9,516,014	99.0%
Sudan	1,864,049	1,396,230	43.95	74.90	36,107,585	31,538,569	87.3%
Tanzania	933,566	118,507	3.73	12.69	47,656,367	10,244,308	21.5%
Uganda	241,248	240,067	7.56	99.51	35,620,977	35,418,768	99.4%
Total	8,984,399	3,176,541	100	35.36	437,423,177	238,119,493	

\*Source: UN Population Division. World Population Prospects. 2010 Revision Compiled by Milly Mbuliro, GIS Officer, Nile-Sec -Entebbe

## What's on? July - September 2012

Dates	Activity	Venue	
July 2 - 4	36 <sup>th</sup> Nile-TAC Meetings and	Kigali	
July 5	20 <sup>th</sup> Nile-COM	Kigali	
July 6 - 7	2 <sup>nd</sup> Parliamentarians Forum	Kigali	
July 9 - 19	ISP Implementation Review Mission	Entebbe, Addis Ababa, Kigali (All NBI Centers)	
August 1 - 15	CIWA/NBCRGP Appraisal Mission	Entebbe, Addis Ababa, Kigali (All NBI Centers)	
August 26 - 31	World Water Week	Stockholm	
Sept. 23 - 29 (tbc)	CIWA/NBCRGP Negotiation		
Sept 23 - 29 (tbc)	Institutional Health Check	Entebbe, Addis Ababa, Kigali (All NBI Centers)	

Compiled by Tom Waako, Projects Officer, Nile-Sec -Entebbe

## **Quiz question**

The Nile Basin is endowed with hydropower potential. What is the published figure of this hydropower potential?

Send your answer to: editor@nilebasin.org



#### **SHARED VISION**

To achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile basin water resources

#### SEND US YOUR COMMENTS AND VIEWS



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