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The Experiential tour organized by Nile Basin Initiative to Zambezi Watercourse Commission (ZAMCOM) and Zambezi River Authority (ZRA)

The Experiential tour organized by Nile Basin Initiative (NBI) to Zambezi Watercourse Commission and Zambezi River Authority in Zambia was a real success in mobilizing stakeholders from the member countries of the Nile basin. Leading personalities such as the Permanent Secretaries from foreign Affairs, Water and Finance as well as the NBI Technical Advisory Committee members from nine countries attended the event, which enabled them to learn and share their experiences.

The Nile Basin Initiative in Partnership with the Zambezi Watercourse Commission (ZAMCOM) and Zambezi River Authority (ZRA) organized the experiential tour that was conducted back to back with the hydro diplomacy training in Harare Zimbabwe

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MESSAGE FROM THE EXECUTIVE DIRECTOR



« It is with immense gratitude that I express my heartfelt appreciation to everyone who has been directly or indirectly involved in this exceptional 25-year journey. »

With great pleasure we share this fourth edition of the Nile News for the Financial Year 2024.

The Nile Basin Initiative (NBI) on February 22, 2024, celebrated years of existence in a remarkable way. Not only was this date commemorating the establishment of the Nile Basin Initiative (NBI) in 1999 it signified key milestones – the 25th anniversary of the partnership among the 10 Nile Basin countries, facilitated by an all-inclusive institution.

This occasion holds significant importance, particularly when considering the prevailing atmosphere of mistrust, suspicion, and doubt that plagued the Nile Basin countries prior to 1999. The achievement of fostering confidence and trust amongst these nations is

truly commendable and deserves recognition.

The NBI, consisting of the Secretariat (Nile-SEC), the Eastern Nile Technical Regional Office (ENTRO) and the Nile Equatorial Lakes Subsidiary Action Programme Coordination Unit (NEL-SAP-CU), has played a pivotal role of fostering a culture of water cooperation. This collective entity serves as a platform for Member States to engage in collaborative discussions on the responsible management and utilisation of the common water resources, with the goal of benefiting all the parties involved and addressing common challenges that no country can tackle alone. Through its various components, NBI has successfully nurtured a spirit of joint stewardship and facilitated meaningful dialogue among the Nile Basin nations.

The primary objective of each Member State is to enhance the quality of life for her citizens. This objective aligns well with the NBI Shared Vision Objective: “to achieve sustainable socio-economic development through the equitable utilization of, and benefit from the common Nile Basin water resources.” The NBI, through its collective efforts, strives to ensure that the utilisation of the shared Nile Basin water resources is carried out in a manner that is fair, sustainable, and conducive to the socio-economic wellbeing of all Member States.

The achievements of the NBI and the evident benefits derived from cooperation to-date are a testimony to the visionary founders, dedicated staff throughout the years, generous donors,

and the unwavering commitment of Member States, as well as the invaluable contributions of our strong partnerships. It is with immense gratitude that I express my heartfelt appreciation to everyone who has been directly or indirectly involved in this exceptional 25-year journey.

« I wish to extend my warmest greetings to all citizens of the Nile Basin and our esteemed partners as we embark on a glorious journey of the next 25 years! May these years be filled with tremendous achievements, shared prosperity, and sustainable development. »

This edition of the newsletter highlights the experiential tour to the Zambezi basin commission of the permanent secretaries from Finance, Foreign Affairs and Water Ministries. Similarly, NBI enhanced its visibility beyond its traditional Member States by participating in the 10th world water forum which took place in Bali Indonesia during its side event.

I wish to extend my warmest greetings to all citizens of the Nile Basin and our esteemed partners as we embark on a glorious journey of the next 25 years. May these years be filled with tremendous achievements, shared prosperity, and sustainable development.

Dr. Florence Grace Adongo
Executive Director

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and thereafter visited the Kariba dam on the Zambia side. The experiential learning tour targeted senior government officials from the Ministries of Foreign Affairs, Water Resources and Finance and the NBI Governance who are decision makers and influence the decision-making processes regarding trans-boundary water management. This tour offered an interactive and practical approach to learn and share experiences of these two basin organizations in managing the water resources of the Zambezi River, Africa's 4th largest man-made river.

The Nile Basin Experiential Learning Tour was officially opened by the Permanent Secretary of the Ministry of Lands, agriculture, fisheries, water, and rural development who was represented by Eng. Tatenda Mawokomanda. She noted that the management of the two river basins provides an opportunity for sharing experiences and gaining insights on strategies to foster interregional cooperation.

This Experiential Tour enabled the NBI team to gain a better understanding of the management of the Kariba dam on both sides where the dam is located and showcase cooperation be-



Experiential tour of Permanent Secretaries in Kariba Dam in Zambia

tween the countries that this unique resource which is a true reflection of transboundary cooperation, development and peacebuilding between these countries.

This study tour was the 3rd that the NBI has conducted as part of its peer-to-peer learning program. Participants learnt more about ZAMCOM and ZRA in terms of their cooperation framework, institutional governance, investment, development and infrastructure. It is also an opportunity for the two host basin organizations to learn more about NBI's management approach, flagship projects and governance.

The specific objective of the experiential learning tour were the following:

- ▶ sharing the experience of joint infrastructure development of

Kariba Dam along the Zambezi transboundary water course, and compare to Nile experience e.g. from Rusumo Falls Hydropower

- ▶ share experience of the ZAMCOM especially regarding cooperative basin investment planning/preparation and to compare to experience from Nile Basin in developing the Nile Basin Investment Programme (BIP)
- ▶ to develop essential skills of relevant officials of NBI Member states in negotiation and conflict management.
- ▶ create awareness on transboundary water cooperation in the Nile basin and foster relations amongst senior officials who are not part of NBI regular governance structures

The experiential learning tours are envisaged to promote sharing of good practices in the management and development of transboundary water resources. In addition, they facilitate learning from flagship projects that are successful in management and development of Transboundary Water Resources. NBI will benchmark good practices that can be promoted for replication in the rest of the Nile Basin Member states.

Concluding the study tour, the three basin organizations agreed that this collaboration should be strengthened, and made recommendations that help them to learn from each other and avoid repeating the same errors. In this respect, ZAMCOM has announced its



Building the future of Nile Cooperation celebrating 25 years of Nile Basin Initiative



Nile Celebrations in Republic of Burundi officiated by the Vice President -Hon Prosper Bazombanza

The Nile Basin Initiative celebrated its 25th anniversary this year (Silver Jubilee). A quarter of a century at the service of transboundary cooperation between ten member states united around a river and a common destiny to alleviate poverty and build peace.

The Nile Basin Initiative is a regional inter-governmental partnership launched by the Nile Basin countries on February 22, 1999, to manage and develop the shared Nile Basin water and related resources in a cooperative manner, share substantial socio-economic benefits, and promote regional peace and security. There are 10 NBI Member States: Burundi, the Democratic Republic of Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda. Eritrea participates as an observer.

This celebration of 25 years of the Nile Basin Initiative was a unique moment to reflect on the achievements of transboundary cooperation between Member States while assessing the high level of commitment and success. It was officiated by vice president of the republic of Burundi Hon. Prosper Bazombanza.

This year, the Council of Minister's meeting came at a special time when



Knowledge expo during the Nile Day in Burundi

NBI celebrated its 25 years of existence. The meeting made significant strides to engage with the development partners during the Strategic Dialogue round table to strengthen the Nile cooperation through exploring options of institutional sustainability.

This remarkable milestone offers an opportunity for reflection on the successes and challenges of the last 25 years of Nile cooperation and consolidates Member States' commitment to the Basin cooperation agenda.

The main theme "Unlocking the benefits from Nile Transboundary Cooperation" is equally evocative of the benefits from Nile cooperation, as it allows us to review the progress made so far. The Nile Basin Initiative has achieved satisfactory results in the fields of water, energy and food security, while maintaining a sustainable ecosystem and efficient transboundary cooperation. One of the most significant achievements is undoubtedly the construction of the Rusumo hydropower dam between Burundi, Rwanda and Tanzania, reinforcing the shared vision between the destinies of these states.

However, Nile Cooperation continues to face significant challenges including high population growth rates, water scarcity, poverty, unsustainable use, exploitation of water related ecosystems, increasing environmental degradation, which are exacerbated by climate change.

This extraordinary meeting was an opportunity to receive guidance on very critical issues that would shape the trajectory of NBI and member states in the future.

Finally, the NBI had an opportunity to showcase some of the unique interactive tools, knowledge and communication products as well as project outputs developed and shared with the wider public during its existence.

Pape Ndiaye
Communication Consultant



Nile-Com Members during the Nile Day Matching in Burundi

World Meteorological organization (WMO) and Climate Risk and Early Warning Systems (CREWS) strengthen the capacity of 11 West and Central African countries to use meteorological tools for early forecasting



Group Photo for Central Africa Project Steering Committee Meeting

The World Meteorological Organization (WMO) invited eleven Central and West African countries to Kigali, Rwanda, to participate in a Regional Workshop on the Flash Flood Guidance System (FFGS) in collaboration with Climate Risk and Early Warning Systems (CREWS) Central Africa to review and adopt an implementation plan for the improvement of severe weather forecasting and warning services in Africa.

Held in Kigali, Rwanda, from June 18 to 20, 2024, the meeting provided an opportunity for delegates from 11 Central and West African countries to exchange views on early warning systems, disaster risk reduction and the improvement of national and regional meteorological services.

Experiences from various regional agencies such as AGRHYMET Regional

Over three days, national and regional delegates from West and Central Africa presented their meteorological and hydrological early warning and disaster risk services, and shared the constraints and challenges they face in terms of technical (expertise, data) and financial capacities.

Center of HydroMeteorology, Commission International du Bassin du Congo Oubangui Sangha (CICOS) in 11 countries, as well as technical and implementing partners such as UNDRR, the World Bank and USAID, provided an overview of the current situation.

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disaster risk services. They shared the constraints and challenges they face in terms of technical (expertise, data) and financial capacities.

National hydrological and meteorological directorates also learned about the new early warning tools introduced



Dr. Ernest AFIESIMAMA the WMO Regional Officer for Africa and Olufemi Osidele Chief Executive Officer

by the WMO, such as the FFGS (Flash Flood Guidance System) and FANFAR in collaboration with CREWS and HCR. Launched in West Africa, FFGS and FANFAR are pilot projects that will strengthen the capacities of countries in terms of meteorological, hydrological and disaster risk warnings.

In addition, FFGS and CREWS launched their steering committee meeting and drew up a roadmap for future activities based on the terms of reference shared by the WMO.

The last day was devoted to the focal points to deepen their understanding of the technical tools made available to States by the FFGS and FANFAR. In addition, the workshop formulated recommendations in terms of training, information sharing and allocation of responsibilities between the various services involved in early warning. Ca-



capacity-building of focal points will optimize meteorological and hydrological forecasting tools for African countries.

The prospect of regional and national coordination and cooperation through FFGS and CREWS Central Africa is

the Workshop was officially closed by Dr. Ernest AFIESIMAMA the WMO Regional Officer for Africa who appreciated all the participants for their active participation and all the regional partners for the support accorded to the workshop but with special thanks to NBI Experts for the excellent logistical support.

underway to enable Africa to provide effective responses to the problems of early warning and disaster risk, with solutions based on innovation, technological tools, anticipation and dissemination. They aim at strengthening multi-hazard early warning systems, improve regional cooperation frameworks for climate and weather forecasting. Others include dissemination tools, contingency planning and response capacities in each of the beneficiary countries.

Finally, the Workshop was officially closed by Dr. Ernest AFIESIMAMA the WMO Regional Officer for Africa. He appreciated all the participants for their active participation and all the regional partners for the support accorded to the workshop. He gave special thanks to NBI Experts for the excellent logistical support.

Ms. Juliet Nakasagga -Knowledge Management Officer and Mr. Pape Ndiaye Communication Consultant NBI

The Nile Basin Initiative at the World Water Forum in Bali: NBI Leadership at the heart of transboundary cooperation



High level engagement during the NBI side event at the 10th World Water Forum

The 10th World Water Forum was held in Bali, Indonesia, from May 18 to 24, 2024. The theme of the forum was “Water for Shared Prosperity”. The World Water Forum is the leading international event on water issues, organized every three years since 1997 by the World Water Council, in partnership with the host country. It provides an opportunity for experts, decision-makers, academia and politicians to meet, discuss and decide on the future of water in the world, particularly in the context of climate change, which affects all water-related policies.

The Nile Basin Initiative was led by its Executive Director Dr. Florence Grace Adongo and accompanied by a strong delegation.

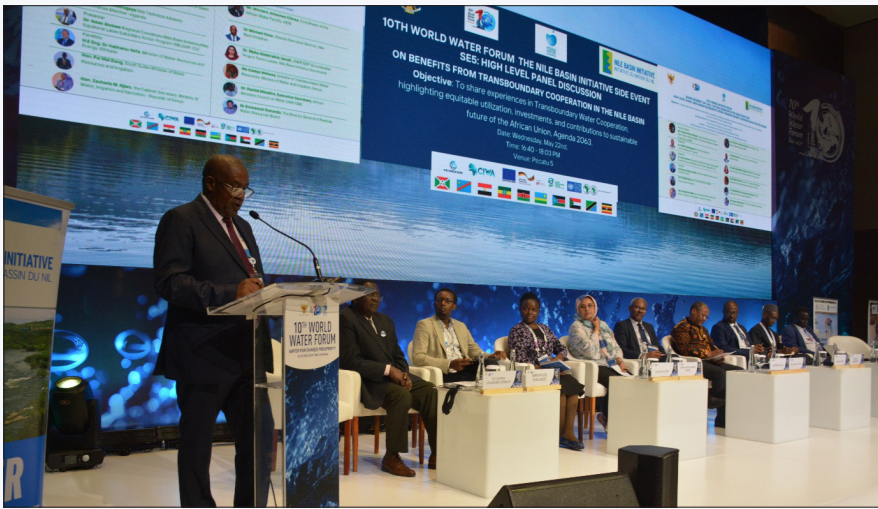
Participation in this forum aimed at the following objectives:



NBI Executive Director Dr. Florence Adongo meeting with Mr. Saroj Kumar, World Bank Global Director for water during the 10th WWF in Bali

1. Meet with technical and financial partners to strengthen existing partnerships and create new ones
2. Increase the organization’s visibility through communication initiatives
3. Promote NBI’s achievements by continuing the celebration of the organization’s 25th anniversary.

Bearing these objectives in mind, the NBI delegation met with the World Bank team, led by Mr. Saroj Kumar Jha, Global Director of the Global Water Practice. The meeting provided an opportunity to strengthen the partnership between the two institutions and to consider future areas of collaboration. These included sharing of data,



Nile Basin Initiative side event during the 10th World Water Forum in Bali Indonesia

information and knowledge, as well as other potential areas that could be developed in the future with regard to transboundary cooperation around the Nile.

Following the World Bank, the Executive Director met with the UNEP delegation led by Dianna Kopansky, Head of the Ecosystem Unit. The meeting focussed on strengthening cooperation on (1) water security, environmental sustainability, climate change adaptation and transboundary water governance and finance. All these issues are part of the NBI's ten-year strategy 2017-2027.

« Through its participation, the NBI succeeded in strengthening partnerships, mobilizing resources and raising the NBI's profile and visibility.

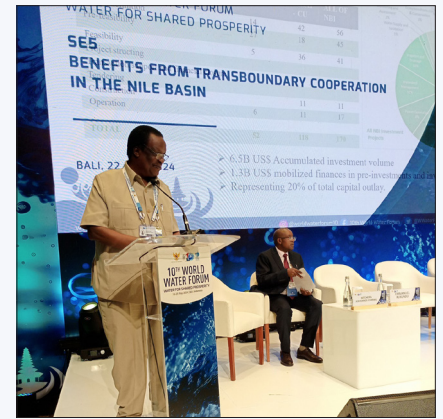
The Nile Basin made a positive contribution to the forum. »

The NBI Delegation then met with DHI led by its Vice President Mr. Stefan Szykarski and its Partnership and Resource Mobilization Officer Ms. Louise Heegaard to discuss future areas of cooperation with NBI, notably, through a training and capacity building portal

learning from the Bangladesh experience organized by DHI.

Pursuing the objectives set by the NBI, Dr. Adongo also took part, as President of ANBO, in high-level panels on transboundary cooperation, where she shared the institution's 25 years of successes and challenges. These two major panels enabled the Executive Director to emphasize NBI's leadership in terms of transboundary cooperation in Africa, and how this experience can serve other African basin organizations.

To conclude, the NBI organized its own side event entitled "The Benefits of Transboundary Cooperation in the Nile Basin". This event gave the NBI the opportunity to highlight the insti-



Hon. Sam Cheptoris Nile Com Chair and Minister for Water and Environment Uganda officially opened the NBI side event in Bali Indonesia

tution and its successes over the past 25 years. For partners such as AM-COW, the AfDB and Nile Basin member countries, the NBI is an example of cooperation that needs to be strengthened and replicated in other ANBO member African basins that were part of the audience.

Through its participation, the NBI succeeded in strengthening partnerships, mobilizing resources and raising the NBI's profile and visibility.

The Nile Basin made a positive contribution to the forum.

Ms. Juliet Nakasagga - Knowledge Management Officer and Mr. Pape Ndiaye Communication Consultant NBI



NBI Executive Director Dr. Florence Adongo meeting with the Vice-President of DHI during the 10th World Water Forum

The Nile Basin Initiative Climate Change Study

The Nile Basin Initiative undertook a climate change study that culminated into a dataset comprising down-scaled projections of precipitation, maximum and minimum temperature. The data set available on its website is stored in the netCDF format. To assist users in extracting information for various studies, small executable programs were developed to assist in extracting timeseries based on the coordinates in degrees decimal of the area of interest or on a shapefile in the geographic projection. The study had the following objectives:

- a. Selection of General Circulation Models (GCMs) that are informative and representative for impact study in the Nile Basin Countries.
- b. Development of bias corrected downscaled data that is actionable for specific type of end use such as water resources planning, flood mitigation, and drought analysis,
- c. Development of data guide for method and tools used, and training NBI staff in downscaling and bias correcting to build internal capacity.

This study included bias correction and downscaling of Regional Climate Model by the Coordinated Regional Downscaling Experiment (CORDEX) and General Circulation Models (CMIP5 GCM). An extensive data Quality Control and Quality Assurance (QA/QC) was performed to make sure the final product is consistent and thoroughly vetted. Various approaches were used to ensure that the output was of the highest quality and these included: 1) the projections from each GCM was independent of other models, 2) the model had the capacity to reproduce historical mean climate well, 3) their ability to reproduce seasonal variation,



Climate Readiness workshop in Kampala, Uganda

« Three future time periods, each 30-years long were selected to generate future scenarios. These are near term projections (2006 to 2035) mid- century (2036 to 2065) and end of century (2066 to 2095) outlooks. The datasets have been used extensively by different NBI projects. »

4) their capacity to reproduce annual variations, 5) closeness to consensus that measures whether projection from a GCM conforms with mean consensus in future times, and 6) whether they can reproduce extremes through the 10th or 90th (return interval of once in ten years) of wet/dry and cold/warm conditions. A combination of these metrics provided insight as to which of the GCMs have better performance and selected to develop the dataset.

Bias correction for both RCM and GCMs were done using the quantile mapping technique that is one of the good approaches and widely used in practice. The method accounts for potential RCM/GCM bias by looking at a given parameter's entire probability distribution rather than just the mean

as is the case in some climate change impact studies.

Historical period of 1970 to 2000 was used to correct retrospective climate projection data. Global observation-based datasets with the NCEP/NCAR re-analysis were aggregated at daily and monthly time steps. Monthly data was used along with CRU data to assess GCM retrospective runs while daily variables were used to assess whether a bias correction would be needed to the CORDEX data.

Three future time periods, each 30-years long were selected to generate future scenarios. These are near term projections (2006 to 2035) mid- century (2036 to 2065) and end of century (2066 to 2095) outlooks. The datasets have been used extensively by different NBI projects.

The datasets and associated tools can be downloaded from the Nile Basin Initiative website.

Mr. Vincent Ssebugwawo
Senior Water Resources Specialist

Diplomatic Corp accredited in Uganda committed for Nile Cooperation



Diplomatic Corp accredited in Uganda committed for Nile Cooperation

The Nile Basin Initiative hosted the group of African Ambassadors accredited in Uganda, to reinforce the framework of cooperation between the Nile member countries, and above all to show the diplomats resident in Uganda the benefits of the cooperation that the NBI has been able to achieve over the past 25 years.

The Diplomatic Community of Africa accredited to Uganda has played a key role in promoting the aspirations of NBI among the riparian countries. The Diplomats of the Nile River Riparian States met in 2018 to discuss and express support for European Union to fund the transboundary project on the Nile. The project was approved by the EU Commission and has successfully facilitated the development of guidelines for transboundary water policies; supported the installation of a transboundary Hydrometeorological system that includes field stations and a data management system, and development of a modelling framework for planning and optimal management and development of the Nile basin water resources.

The Nile Basin Initiative organized a follow up meeting to update the diplomats on the programmes that are being implemented by NBI. In the recent past, the diplomatic community

« The aim of the meeting was to raise awareness on the importance of transboundary cooperation challenges for the Nile Basin, despite the tangible results achieved over the past 25 years for the benefit of member states, and to consolidate the commitment and partnership of the diplomatic corps accredited to Uganda. »

were invited to the NBI Secretariat and witnessed the handing over of the land title of NBI land from the Government of Uganda to the Nile Basin Initiative under the leadership of the Executive Director Dr. Florence Grace Adongo

The progressive support by the Diplomatic corps is critical



Ambassadors during the exhibition at the Nile Basin secretariat in Entebbe, Uganda



UNDP Country Resident handing over vehicle to NBI Executive Director

for NBI work as this distinguished community facilitates/promotes good stewardship of public goods to partner states. Management of NBI has been receiving reports from the capitals where the Ambassadors have been reporting the NBI

activities to their headquarters. These concerted efforts create a critical mass of awareness and appreciation making mobilization of stakeholders on transboundary priorities lighter.

The aim of the meeting was to raise awareness on the importance of transboundary cooperation challenges for the Nile Basin, despite the tangible results achieved over the past 25 years for the benefit of member states, and to consolidate the commitment and partnership of the diplomatic corps accredited to Uganda.

Mr. Pape Ndiaye
Communication Consultant



Tree planting by ambassadors

Nile Basin Initiative implements the Nile Basin Hydrological Monitoring Systems



Installation of Hydromet equipment by experts in the field

The NBI Secretariat in collaboration with the national teams completed the NBI hydromet project as approved by the Nile Council of NBI Hydromet project as per the approved design and implementation plan validated by the Nile Council of Ministers in its 23rd meeting on 4th June 2015, in Dodoma-Tanzania.

The project financed by BMZ-EU (Federal Ministry of Economic Cooperation and Development, Germany and European Union) was organized around the following main components:



- ▶ Updating the system design specifications and implementation plan,
- ▶ Civil works constructions to be undertaken by national/local contractors
- ▶ Procurement of equipment for the regional stations, (iv) Installation of new equipment, (v) Upgrading National and Regional Data Centres,
- ▶ Capacity building for national staff to support the hydrometric system installation and operation,
- ▶ Developing of Information products.

The Nile Basin hydrological monitoring system was implemented in two phases consisting of: Updating the design and implementation plan of the hydrologi-

cal monitoring system based on field visits and national & regional consultations, and Installation and operationalization of the Nile Basin Regional Hydrological Monitoring Network.

A total of sixty stations were designed. Installation and configuration was completed for forty three stations with the support of national hydrological monitoring teams as follows: Burundi (2), Kenya (6), Rwanda (6), South Sudan (5), Sudan (2), Tanzania (8), and Uganda (14). Security and other challenges in DR Congo (1), Sudan (13) and Ethiopia (2) halted the progress of the implementations. Capacity building of the national teams on installation, operation and maintenance was conducted in the member state countries. NBI continues to provide the necessary technical support to member states especially in the system troubleshooting and emerging issues.

The NBI has handed over the stations to Burundi, Rwanda, South Sudan and Uganda. These memorable events were graced by high level dignitaries from the NBI states and widely covered by different media houses.

Mr. Pape Ndiaye
Communication Consultant NBI



Nile Basin Initiative countries engaged for the sustainability of the Hydrological Monitoring System



Hydromet experts in the field, Jinja, Uganda

The first workshop for the Regional Working Group on Hydrology was hosted by the Nile Basin Initiative in Kampala to address transboundary water resources management issues especially on hydrological monitoring. This workshop allowed the experts from Nile countries to share experiences and have a common understanding of the use of Hydrological Monitoring System.

Through the financial support from the German Federal Ministry of Economic Cooperation and Development (BMZ) and European Union (EU), the NBI has collaborated with the Member States to establish a comprehensive suite of regional hydrological monitoring system that collects, transmits and manages real-time river flow and lake level information to the national and regional data centres via dual transmission with GSM (module and satellite technologies)

To improve this hydrological monitoring system, experts from the Nile Basin countries came together to take the lead and gain a global understanding of

the system's use in terms of generating information products, data sharing and to identify the group's roles and activities for system operation, maintenance and data generation at national level.

The dissemination of this hydrological information will enable the countries of the Nile basin to realize the benefits of transboundary cooperation, the need to learn from each other, and the application of early warning systems in the prevention of flood damage. The maintenance and operationalization of

the monitoring system was also one of the objectives of the Workshop. It will enhance better coordination and reinforcement of the States' capacities to generate information products within the NBI's countries.

Following the handover of hydrological stations to NBI member states such as Rwanda, Burundi, South Sudan, Uganda and, in the near future, Kenya and Tanzania, the Regional Expert Group will take over from the countries by setting up a protection and maintenance system capable of securing the hydrological stations, while providing NBI member states with real capabilities in water information systems through a better approach to hydrological systems and a better knowledge-based decision-making process.

The Regional Working Group nominated by the countries will ensure the maintenance, the operationalization and the sustainability of the Regional Hydrological Systems.

Pape Ndiaye
NBI Communication Consultant



Regional Expert Working Group workshop in Kampala, Uganda

Leadership of the Nile Basin Initiative honored at the second “Women in Water Diplomacy Global Network Forum” in Vienna



NBI Executive Director Dr. Florence Grace Adongo participates the Women in Water Diplomacy Network conference, Vienna Austria

The 2024 Global Network Forum include four intensive days of joint learning and experience exchange with an expected 80-100 Network members, leading global water experts, and Network supporters from around the world. Additionally, the program will include innovative networking and informal engagement activities as well as collective celebration of International Women’s Day!

Addressing the need for women’s empowerment in the water sector, the “Women in Water Diplomacy Global Network Forum” took place in Vienna from 4th to 7th March 2024. The event, which gathered more than 80 water management experts and networks from across the globe, provided a platform for exchange on best practices and experiences on gender mainstreaming and addressing strategic challenges related to water management and security among women water professionals from around the world.

The Women in Water Diplomacy Network was initiated in 2017 to improve gender equality in high-level decision making in transboundary basins with focus on women’s leadership in regional dialogues around shared waters. The Network was developed in the Nile Basin and later adapted and replicated in other water regions including Central Asia and Afghanistan and other partner basins across Africa, Asia, and the Americas through the 2022 Global Network Strategy ‘A Path Forward for Women, Water, Peace and

Security.’ In person ‘Network Forums’ have long been a central feature of Network engagements. The Women in Water Diplomacy Network in the Nile has held three Basin Forums prior to the pandemic including in October 2017 in Uganda; December 2018 in Ethiopia; and January 2020 in Kenya. Each of these three Nile Basin Forums are described in the Network’s inception and development report ‘Laying the Bedrock of Transformation.’ In 2022, the Network convened its first Global Network Forum and released its Global Strategy at the 2022 World Water Week in Stockholm, Sweden.

The 2024 Global Network Forum include four intensive days of joint learning and experience exchange with an expected 80-100 Network members, leading global water experts, and Network supporters from around the world. Additionally, the program will include innovative networking and informal engagement activities as well as collective celebration of International Women’s Day!

For the Nile Basin Initiative, the objective was achieved. Indeed, this second edition of the Women in Water Diplo-

macy was an opportunity to reward its Executive Director, Dr. Florence Grace Adongo, for her leadership in the management of transboundary basin organizations. She received recognition from her peers for her role in cooperation in the Nile basin, but also for her commitment to building peace and stability in the Nile region. The award is timely, as the NBI is celebrating 25 years of existence, marking its impact in strengthening gender equality and equity in women’s leadership.

The Women in Water Diplomacy Global Network Forum aligns with the United Nations Sustainable Development Goals, particularly Goal 5 (Gender Equality) and Goal 6 (Clean Water and Sanitation). Building on the collective expertise and collaboration of women in the water sector, the event has the potential to make a tangible impact on inclusive forward-looking water governance and contribute to the Water Action Agenda derived from the UN 2023 Water Conference.

Pape Ndiaye
Communication Consultant NBI

The Nile River Basin Investment Program: A Collaborative Approach to Basin Wide Investments



Vice President of the Republic of Burundi Hon. Prosper Bazombanza with Hon. Sam Cheptoris, Nile COM Chair launching the Nile River Basin Investment Plan during Nile Day 25th

The Nile River Basin Investment Program (NR-BIP) is a high-visibility flagship regional program of jointly identified transformative investment projects that are aimed at driving climate-resilient socio-economic development of the Nile River Basin while reversing environmental degradation within its watershed.

The NR-BIP (Nile River Basin Investment Program) is a response to the directive from the 2017 Summit of Heads of State and Government (HoSG), which directed the NBI to facilitate the preparation of investment projects that support Nile riparian countries to drive and attain socio-economic development while reversing environmental degradation in the basin.

The NR-BIP was jointly prepared by the Regional Economic Commissions (RECs) and Lake/River Basin Organizations (L/RBOs) operating within the Nile River Basin. The participating regional organisations in the NR-BIP are the African Union Development Agency – New Partnership for African Development (AUDA-NEPAD); Common Market for Eastern and Southern Africa (COMESA) and its specialized institution-the Eastern Africa Power Pool (EAPP); East African Community (EAC) and its specialized institution, the Lake Victoria Basin Commission (LVBC); Intergovernmental Authority on Development (IGAD); and the Nile Basin Initiative (NBI). The Nile River Basin Investment Program provides a means for identifying, prioritizing, marketing, mobilizing resources for coordinating implementation, monitoring and evaluating investment projects drawn from multiple sectors and sources, including the countries, RECs, L/RBOs and other actors in the Nile Basin.

The NR-BIP areas of investments include (i) Water Security and Climate Resilient Water Resources Management; (ii) Food Security and Agricultural Water Management; and (iii) Energy Security, Regional Power Trade, Hydropower Generation, Other Renewable Energy Sources.

The African Development Bank is targeted to lead the efforts to mobilize investment financing for the program in partnership with AUDA-NEPAD. The Virtual PIDA Information Centre (VPIC) with the African Infrastructure Database (AID) is the tool that will be used in the monitoring and evaluation of the NR-BIP and dissemination of information of the projects portfolio. The African Infrastructure Database (AID) is a tool for collection, compilation, validation, storage and sharing of infrastructure project information in Africa while the Virtual PIDA Information Centre (VPIC) is a web portal for disseminating information on the PIDA Program, including project profiles from the AID.



2nd NR-BIP Task Team Meeting, April 23-25, 2024, Addis Ababa, Ethiopia.

From January to July 2024, one regional and four institutional-level AUDA-NEPAD AID tools trainings, one core task team meeting, two consultative task team meetings, and 2nd EAPP mission were held. The NR-BIP project and program implementation document was prepared, the NR-BIP long list project portfolio was compiled, and criteria for screening and prioritization of projects were developed and revised at the core task team and task team level. For all regional organizations, the institutional level and NRBIP dash board are created and are maintained on the AUDA-NEPAD AID Tool.

Dr. Adanech Yared Jillo, PhD
Nile River Basin Investment Program Regional Coordinator/Expert

Conjunctive surface groundwater management Pilot Designs

“Enhancing conjunctive management of surface and groundwater resources in selected Transboundary aquifers: Case study for selected shared groundwater bodies in the Nile Basin”.

The Nile Basin Initiative is currently implementing the project entitled “Enhancing conjunctive management of surface and groundwater resources in selected Transboundary aquifers: Case study for selected shared groundwater bodies in the Nile Basin”. This project aims at fostering the more effective utilization and protection of three selected shared aquifers in the selected sub-basins in the Eastern Nile and the Nile Equatorial Lakes region through further improving the understanding of the available groundwater resources and demonstrating ‘conjunctive management that optimizes the joint use of surface and groundwater.

National and International consultants were recruited to conduct pilot project designs for conjunctive management of surface and groundwater. The pilot designs were developed through deep and continuous engagements with stakeholders along the three transboundary aquifers to enhance ownership and promote sector – sector/national and regional cooperation.

The consultation meetings followed extensive field visits and ground measures used to generate and develop reasonable project designs. The stakeholder’s consultation meetings were planned to support the consultants’ continuous engagement with the national experts in the basin for the enhancement of the design’s development and the integration of the pilot designs in the national and sub-basin water resources future development plans.



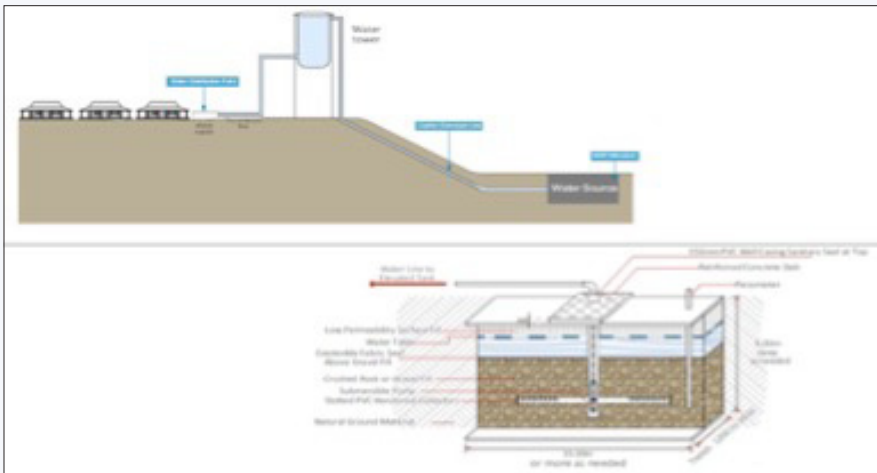
« The subsurface structure will also function as a storage reservoir below the ground. A groundwater monitoring network comprised of 40 wells was designed to cover the full extent of the Kagera aquifer. »

Following a thorough ground investigations and consultations meetings, the selection was set on the type of conjunctive use of water resources approach. The pilot project technology (MAR) managed aquifer recharge was recommended by most Nile Basin countries and the shared aquifer diagnostics analysis report (SADA report). The technology was to be ascertained by field investigations and ground measures to generate the most reasonable and most effective design.

Two designs of MAR technology were developed by consultants, verified by national experts and modified to adjust to the current social needs and inter-

national standards on drinking water supply following the SDG 6 for water and sanitation.

The MAR structure in Kagera region was proposed to provide potable water to the small communities within the vicinity of the aquifer area. The intervention involves the construction of a subsurface high permeability ditch for the collection and storage of groundwater in sufficient quantities to meet the domestic water demand of targeted communities. The structure will be designed to serve about 500 persons (20-30 m³/day). The proposed structure will be oriented within the native aquifer in a normal direction to the natural flow gradient and with an adequate dimension to ensure sufficient yield over a wide range of hydrologic conditions. The subsurface structure will also function as a storage reservoir below the ground. A groundwater monitoring network comprised of 40 wells was designed to cover the full extent of the Kagera aquifer. The wells will be fitted



MAR structure Kagera region

with multiparameter probes to measure the water level as well as selected water quality parameters.

Water tables vary considerably in the Mount Elgon aquifer, typically from 10 to 70 meters, depending on distance from the main riverine recharge source and extent of local extraction. With per capita water demand expected to double over the next 15–20 years, combined with population increases, water supplies are under increasing pressure. A Managed aquifer recharge structure (MAR) is intended to take advantage of water supplies available during the rainy seasons when river flows are up to 15 times greater than in the dry season, and artificially augments recharge to increase underground water supplies for future use. The MAR intervention at Mount Elgon area, can help stabilize or raise groundwater levels, improving the availability of primary water supply for potable uses and making water supplies more secure. The MAR induced infiltration technology for Mount Elgon region will be constructed by check dam sites, supplied by injection borehole, solar pumps, above ground intake well, piezometers and treatment plants.

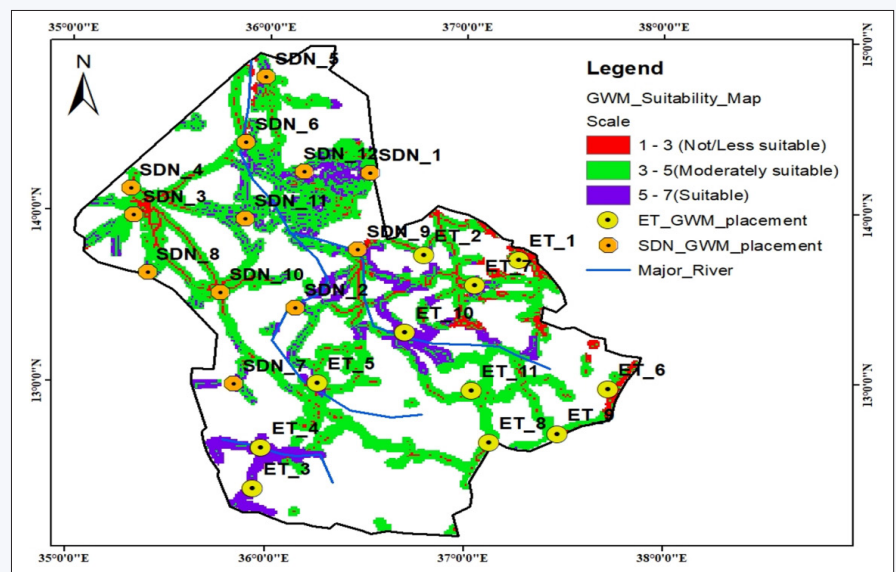
For Gedaref Adegrat shared aquifer area a regional monitoring system was

designed. The monitoring system was generated using a multi criterion analysis for three major parameters including, 1) availability of ground- surface water 2) environmental aspects 3) socio economic aspects, among various sub criterion including accessibility to motor roads, urban dwellings, power supply, etc... the final lay out of the monitoring network was represented using a suitability map showing potential sites for monitoring. The design recommended twelve sites in Sudan and eleven sites in Ethiopia using solar pumps and online/offline motorized sensors for reading water levels and other water quality parameters.

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MAR technology is not a newly introduced technique in Africa and the Nile Basin region, the technology has been in use for generations. The knowledge regarding the improved MAR technology will provide opportunities for improved water supply that will have positive impacts on health and economic performance at all levels of community, but to fully satisfy the unmet water demand, that will require further investment in surface groundwater investigations, share of knowledge and best practice. Water quality is of paramount importance, and use of recharge protection zones, managed extraction points, education, water quality monitoring and appropriate technologies will be important to achieve potable water at the household level.

Maha Abdelrahim Ismail, PhD
UNDP/GEF Groundwater Project Team
Leader



MAR induced infiltration concept.,

Capacity Building: Global Water Partnership Eastern Africa (GWPEA) Strengthening NBI and Basin Organisations in International Water Law and Water Cooperation



Nile Basin Initiative (NBI) has been participating in the Pan-Africa Capacity Building Workshop on International Water Law and Water Governance for improved practices in transboundary water investments in Africa since 2022. The annual training is Hosted by Global Water Partnership Eastern Africa (GWPEA) in Uganda.

The regional training is aimed at strengthening capacities of institutions of countries and basin organisations in Africa in addressing issues related to transboundary water resources management through enhancing knowl-



edge and skills necessary for promoting cooperation among countries.

The NBI-led Nile cooperation has benefited from this training which started from pure IWL training and gradually shifted to include negotiation. In line with this, NBI and GWPEA are forging closer collaboration in hydro diplomacy.

Given the importance of transboundary water in Africa where nearly 80% of Africa's freshwater resources are transboundary, the IWL training has been conducted every year since 2015 (except the COVID years) targeted at Pan Africa level. Over 400 participants from across African countries, mostly RBOs, Government transboundary water focal points, Regional Economic Commissions (RECs) repre-

sentatives. Some Non-Governmental Organizations (NGO), academics and youth have been trained.

The training has created an enabling environment and clarified mutual responsibilities and accountabilities amongst riparian countries that seek to mobilise investments into regional water infrastructure projects.



DID YOU KNOW?

The Nile Basin Initiative 25 years of existence has enhanced fruitful cooperation and encompassed a wide array of transformative investment projects spanning various sectors of Member States' economies, such as energy, water, environment, agriculture, climate, and more. These collaborative initiatives have yielded numerous benefits, playing a vital role in advancing the realisation of our Shared Vision Objective.



Burundi



DR Congo



Egypt



Ethiopia



Kenya



Rwanda



South Sudan



The Sudan



Tanzania



Uganda



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