



AUDA-NEPAD
AFRICAN UNION DEVELOPMENT AGENCY



NILE BASIN INITIATIVE
INITIATIVE DU BASSIN DU NIL



COOPERATIVE INVESTMENTS TO ADVANCE THE NILE DEVELOPMENT AGENDA 2000-2025





The development of the Nile River Basin Investment Program (NRBIP) is a collaborative effort led by the implementing agencies and strategic partners.

FOREWORD

Dear Esteemed Colleagues and Partners,

It is with great pleasure that I introduce the document titled “Cooperative Investments To Advance The Nile Agenda.”

This comprehensive work represents the collective efforts of regional organizations within the Nile Basin, united by a common vision: sustainable socio-economic

development through the equitable utilization of our shared water resources.

The Nile River, with its dual origins and majestic journey to the Mediterranean Sea, binds our nations together in a shared destiny. With a drainage basin spanning vast territories and a population surpassing half a billion people, the Nile Basin represents not only a vital natural resource but also a conduit for regional cooperation and development. Our joint commitment to cooperation, benefit-sharing, and peace underscores the importance of this initiative. As we navigate the challenges posed by water scarcity, energy demands, food security, and environmental sustainability, collaboration becomes our most potent tool.

This document has two main parts. The first part (Chapters 2-9), systematically outlines the collaborative endeavors undertaken by the Regional Economic Communities (RECs), Transboundary Lake /River Basin Organizations (L/RBOs), and other regional organizations, showcasing completed and ongoing projects that underscore the tangible benefits of cooperation. From enhancing water supply and sanitation to fostering agricultural irrigation, from harnessing hydropower to facilitating regional trade, these initiatives exemplify the transformative power of synergy, emphasizing the multiplier effect achieved



Hon. Sam Cheptoris

Minister of Water and Environment of the Republic of Uganda
Chairperson of the Nile Council of Water Ministers (Nile-COM)

when individual efforts converge into a region-wide portfolio. By pooling resources and expertise, we amplify our impact across thematic areas and geographical boundaries.

The second part (Chapter 10) unveils projects at the preparatory stage. The projects presented here serve as a foundation for the future and offer a glimpse into the potential of a new multi-sectoral and multi-agency regional investment program—the Nile Development Agenda. These candidate projects, spanning water supply, hydropower, agriculture, and more, hold the promise of transformative socio-economic development. They represent our shared commitment to a prosperous future for the Nile region.

As Chairperson of the Nile Council of Water Ministers, I extend my deepest gratitude to all the individuals, institutions, and nations whose dedication and cooperation have made this endeavor possible. May this document inspire us to continue our collaborative efforts in advancing the Nile Agenda, for the benefit of current and future generations. I also extend my sincere gratitude to all stakeholder institutions and partners involved in this noble initiative. Let us continue to forge ahead, guided by the spirit of cooperation, synergy, and our slogan — one river, one people, one future.

With warm regards.



1

INTRODUCTION

The Nile is a major north-flowing river that has dual origins in the Ethiopian Highlands and the Nile Equatorial Lake's region, and discharges into the Mediterranean Sea. The drainage basin of the river measures 3.18 million km² (NBI, 2012¹) in area (which is about 10% of the land area of the continent) and traverses the territories of 11 countries (Burundi, the Democratic Republic of Congo, Eritrea, Ethiopia, Egypt, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda). The 11 countries of the Nile Basin have a combined population of 556 million, about 272 of which resides in the basin (NBI, 2020²).

Countries within the Nile Basin belong to several Regional Economic Communities (REC) and other types of regional organization. The regional organizations whose jurisdiction covers part or all of the Nile Basin, include the East African Community (EAC), Intergovernmental Authority on Development (IGAD), Common Market for Eastern and Southern Africa (COMESA), Economic Community of the Great Lakes States (CEPGL), Eastern Africa Power Pool, The Nile Basin Initiative (NBI), Lake Victoria Basin Commission (LVBC), Ramsar Centre for Eastern Africa (RAMCEA), and the Northern Corridor Transit and Transport Coordination Authority (NCTTCA).

This document presents the project portfolios of the regional organizations in two parts. The first part (Chapters 2-9) summarizes the completed investment projects and projects still under implementation/ construction that demonstrate the benefits to the Nile riparian countries from the activities of the regional organizations. When the portfolios of individual regional organizations are reviewed, the impacts appear modest, put when consolidated into a region-wide portfolio, the impacts are significant and multi-faceted. The second part of the document (Chapter 10) presents projects at preparatory stage (feasibility and design level) in the portfolios of the regional organizations. These projects are candidate projects for a new multi-sectoral and multi-agency investment program that will provide the blue print for socio-economic development in the Nile region or the Nile Development Agenda.

The projects under discussion fall in eight categories, namely hydropower development; regional power interconnection and power trade; multi-purpose water storage dams; water supply and sanitation; transboundary lakes environment and fisheries resources management; agricultural irrigation; watershed management in transboundary water basins; and navigation, inland water transport and regional trade.

1 NBI, 2012. Nile State of Basin Report 2012. 244 pp

2 NBI, 2020. Nile State of Basin Report 2020. 278 pp

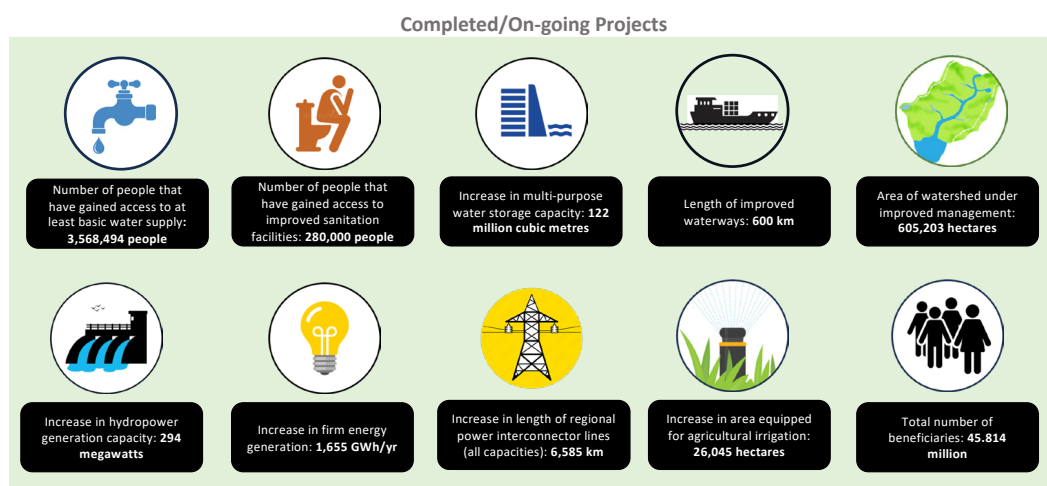
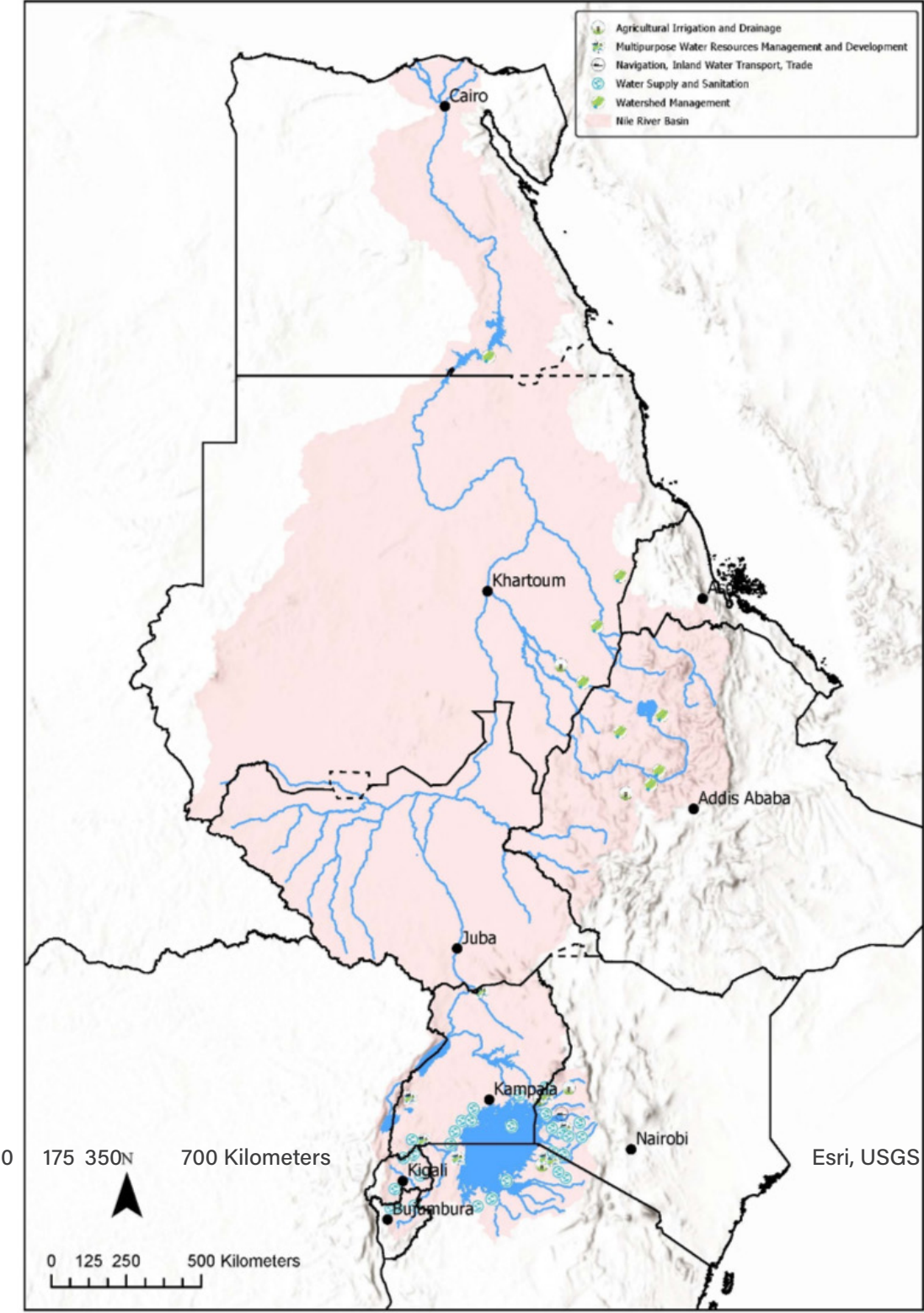


Figure 1: The key results from 53 water-related completed and ongoing investment projects of the Regional Economic Communities and Transboundary Lake/ River Basin Organisations operating in the Nile Basin. The total investment finance for the 53 projects is US\$ 4.71 billion.

Projects Location Map





2

WATER SUPPLY & SANITATION

Access to clean drinking water and adequate sanitation facilities is a basic human right, and essential undertaking for maintaining public health. Contaminated water can spread diseases such as cholera, typhoid, and diarrhea, leading to illness and death. Ensuring safe water and sanitation services helps prevent the spread of waterborne diseases, reducing the burden on healthcare systems, reducing absenteeism, and improving economic productivity and overall well-being. Preventing water pollution from improved sanitation systems is essential for preserving ecosystems and biodiversity of transboundary water basins. However, communities living in transboundary areas may face challenges in accessing these essential services due to geopolitical boundaries or competing interests.

A significant proportion of the population of the Nile riparian countries has no access to safe water supply and improved sanitation. Ensuring equitable access to water and sanitation facilities across borders helps promote social equity and reduces disparities in living standards among populations residing in transboundary regions. Improving access to water and sanitation for communities along transboundary borders helps them appreciate the principles of transboundary water cooperation and benefit sharing, and can help to prevent conflicts over use of shared water resources. The water supply and sanitation projects implemented at regional level in the Nile Basin are outlined below.

Water Supply and Sanitation - Impact

Through the regional level water supply and sanitation projects, a total of 3,568,494 people have gained access to safe water supply while 280,000 have gained access to improved sanitation services (including outputs of multipurpose water resources management and development projects). Municipal wastewater, solid waste and stormwater management systems have been improved in 25 secondary towns in the Lake Victoria Basin. This excludes water supply and sanitation services extended to basin communities through multipurpose water resources management and development projects.



Box 6: Lake Victoria Water And Sanitation Project Phase II (LVWATSAN II)

The LVWATSAN II Project was a project of the Lake Victoria Basin Commission funded by the African Development Bank. The overall objective of the project was to contribute to the reversal of the pollution of the Lake through the improvement of sustainable water supply and sanitation infrastructure in 15 secondary towns within the Lake Victoria Basin. The 15 towns are the following:

- Burundi: Ngozi, Musinga and Kayanza
- Kenya: Keroka, Kericho and Isebania/Sirari;
- Rwanda: Kayanza, Nyagatare and Nyanza;
- Tanzania: Geita, Sengerema and Nansio;
- Uganda: Mayuge, Kayabwe-Bukakata and Ntungamo.

Key project outputs included the following:

- 16 Boreholes and installed with hand pumps for community water supply in Tanzania and Uganda
- 5 water treatment plants rehabilitated, and 14 new water treatment plants constructed in the project target town in the five Partner States.
- 20 public water Fountains have been constructed
- 88 public toilets were constructed and put to use
- 423.4 km of pipeline for water distribution was laid.
- 1190 new connections to the water supply were made.
- 2,562 persons (about 50% women) were trained in hygiene and sanitation



The water intake for Sengerema water treatment plant in Tanzania constructed under the LVWATSAN II Project.



3

HYDROPOWER GENERATION DEVELOPMENT

Energy is a cornerstone of development of nations, impacting economic growth, industrialization, technological advancement, agricultural productivity, service sector growth, job creation, quality of life, global competitiveness, and environmental sustainability. Attaining energy security, thus, is key to ensuring long-term development of nations, and well-being of communities.

The Nile region is well endowed with energy resources in the form of natural gas, oil, hydropower potential, geothermal energy, coal, peat, biomass, solar and wind. Despite this, electricity supply in most Nile countries is inadequate, unreliable, and expensive. About half of the population of the Nile countries has no access to electricity, and more than 90% rely on biofuels (firewood, charcoal and agricultural and animal waste) for cooking. The region's energy deficit is seriously stifling its economic growth while the heavy reliance on biofuels for cooking, is putting immense pressure on the region's forests.

Thermal plants are the dominant source of energy in the region but hydropower is emerging as an increasingly important energy source due to its

renewable and pollution free nature, long economic life and typically low unit energy costs. Only 42% of the region's hydropower potential, estimated at 31,000 MW, has been developed. There is urgent need for the Nile Basin countries to develop the hydropower potential of the Nile because it: (a) helps in the diversification of energy mix thereby reducing dependence on fossil fuels; and (2) provides stable and predictable baseload power supply, which stability is crucial for sectors such as industry.

The regional organizations in the region have been working closely with national governments to support hydropower development through the following ways: carrying out promotion and advocacy for regional hydropower development; carrying out regional assessments and preparing regional masterplans for hydropower development under leadership of the Eastern African Power Pool (EAPP); carrying out project identification and preparation or priority projects to bankable levels; carrying out resource mobilization for upstream project preparation activities as well as downstream investment; and supporting the Nile riparian countries in overseeing the delivery of regional projects.

Power Generation - Impact

The increase in hydropower generation capacity from completed/ongoing projects is **298 MW**, and firm energy generation is **1,655 GWh/year**, benefiting **31.15 million** people.



Box 1: Regional Rusumo Falls Hydroelectric Power Project



The Regional Rusumo Falls Hydroelectric Power Project spans the Kagera River as it forms the border between Rwanda and Tanzania. The project is shared between the three countries i.e. Burundi, Rwanda and Tanzania and includes an 84 MW hydropower generation plant, transmission lines to Burundi, Rwanda and Tanzania and substations. A jointly owned utility/institutional mechanism for the co-management of power generation and distribution line to national power utilities has been set up—the Rusumo Power Company Limited is a Special Purpose Vehicle—publicly financed, publicly owned but privately managed.

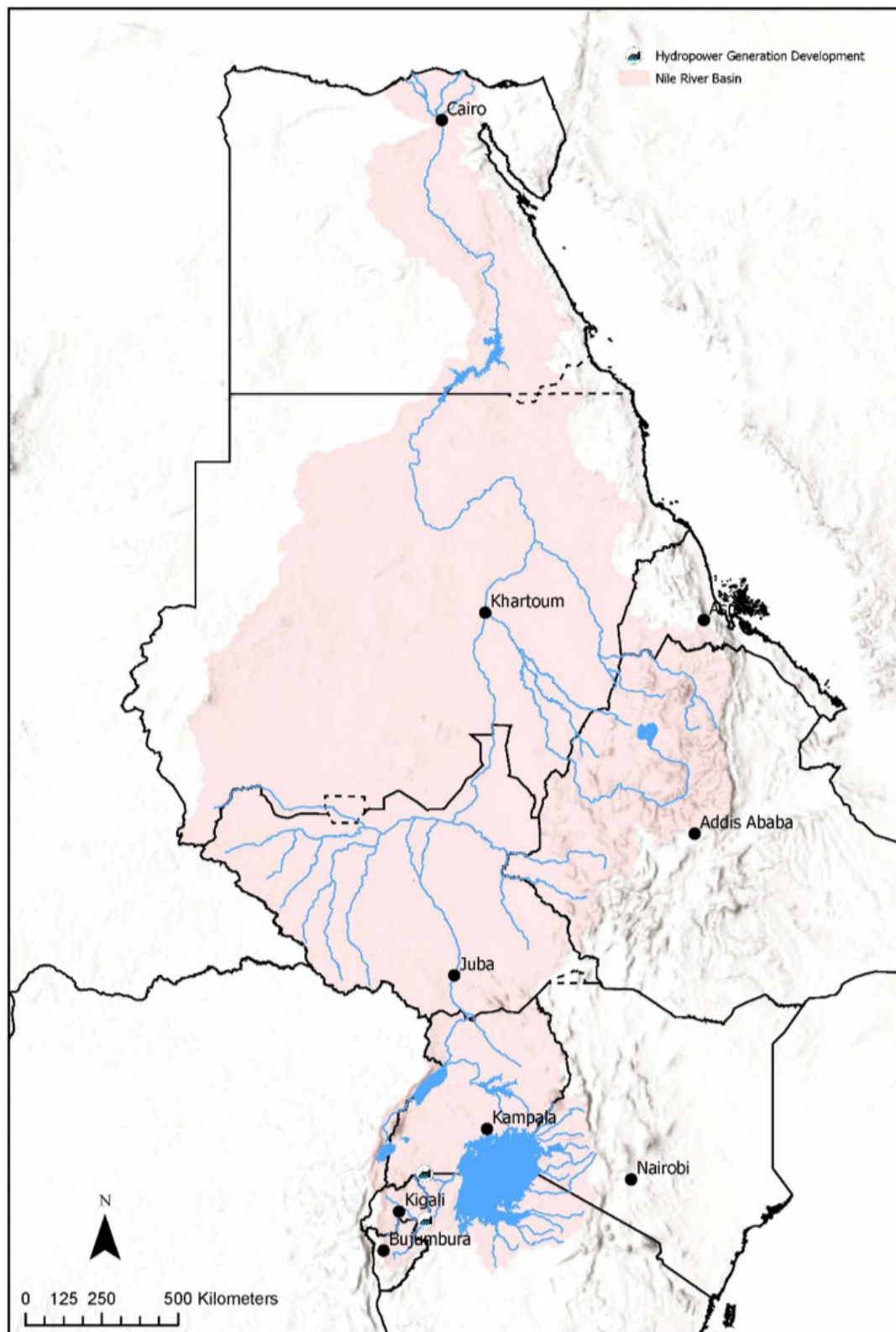
Box 2: Transboundary Cascade Dams In Eastern Nile



The coordinated operation of cascade dams can be through information sharing, collaboration through adaptable planning and even through the joint ownership of infrastructure with shared objectives.

The immense hydropower potential of the Eastern Nile (Baro-Akobo-Sobat, Blue Nile and Atbara), can be optimised through transboundary cooperation and can also support the development of other sectors such as irrigated agriculture.

Hydropower Map





4

REGIONAL POWER INTERCONNECTION AND POWER TRADE

The interconnection of national power grids, and regional power trade, plays a crucial role in creating a robust, flexible, and efficient regional energy infrastructure that can meet the growing demands of the regional community while enhancing sustainability and reliability. Regional power interconnection and power trade enhances the reliability of electricity supply, allowing one part of the region experiencing power shortage to obtain power from other parts of the region having surplus, thereby reducing the impact of local disruptions. Regional power interconnection further enhances the resilience of the overall power system in the region by providing backup support in case

of emergencies, natural disasters, or equipment failures; improves the stability to the overall power system by balancing generation and consumption across a larger geographical area; and contributes to regional cooperation, integration and peace.

Historically, there has been limited interconnection of electricity grids among Nile countries. Each country has tended to operate its own power systems independently. The Eastern Africa Power Pool working together with the NBI's two investment arms – NELSAP-CU and ENTRO – and with the Ministries responsible for energy in the Nile countries, have tried to change this by promoting regional power interconnection. The key projects in this respect are summarized below.

Power Interconnection - Impact

The increase in length of regional power interconnection and transmission lines (all capacities) is **6,585 km**, benefiting **4.173 million** people.



Box 5: Supporting Much Needed Electrification In South Sudan



A recently started and critical project is the 400kv Uganda (Olwiyo) - South Sudan (Juba) interconnection, a USD394 million project over a length of 350km. This project will allow Uganda to export excess power from the Karuma, Ayago, Kiba, Oriang and Uhuru hydropower plants along the Nile.

Equally significant, there are 2GW of hydropower potential in South Sudan from planned schemes such as Bedden, Grand Fula, Lakki and Shukoli whose development can be catalysed through interconnection and associated opportunities for power trade.

Benefits are enormous, not only to Uganda and South Sudan, but to other neighbouring countries as interconnection increases.



The Nile Equatorial Lakes (NEL) Countries Electric Grids Interconnection Project lays the necessary groundwork for the creation of a regional electricity market that would include not only the NBI development programme but also those of the East African Power Pool (EAPP). Set out in the NBI Strategic Action Plan, the project interconnects the grids of five countries (Burundi, Kenya, Uganda, DR Congo and Rwanda) and will help improve the rate of access to modern energy for the population of the Equatorial Nile Basin at a lower cost.

Box 3: The Nile Equatorial Lakes Grid



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5

AGRICULTURAL IRRIGATION AND DRAINAGE

Food security is a serious challenge in the Nile Basin. The level of food production in the basin is unable to cope with the increase in demand from population growth, leading to rising levels of undernourishment. None of the Nile countries is self-sufficient in food: all countries produce less food than the needs of their populations, and are net food importers. Undernourishment is prevalent in all Nile countries except for Egypt, and impacts negatively on poverty reduction, economic growth and public health.

About 87% of the cultivated land in the Nile Basin is under rainfed production systems, and is characterized by small holdings, low inputs, low productivity, and adverse impacts of climate change. Agricultural irrigation, which is a key component of modern agriculture, is not well developed in the Nile Basin. Agricultural irrigation plays a vital role in addressing food security challenges by contributing to increased agricultural productivity, stability in crop

production, and overall resilience in the face of various environmental and climatic uncertainties. The total area under irrigation in the Nile Basin is estimated at 6.6 million ha, but more than 90 percent of this is located in just two countries – Egypt and Sudan. Irrigation uses the equivalent of about 78 percent of the peak flow of the Nile River at Aswan, making it the dominant consumptive water use sector.

The Nile riparian countries, among other things, have been cooperating in agricultural irrigation development. Cooperation in this area is important because it provides an avenue for dialogue and cooperative management of the largest consumptive water user, while working towards attaining regional food security. It also helps to minimize the environmental impacts of irrigation projects, ensuring that the preservation of biodiversity, water quality, and ecosystem health is prioritized during irrigation development. The key irrigation projects cooperatively developed over the year are outlined below.

Agricultural Irrigation And Drainage- Impact

The increase in area equipped for agricultural irrigation from completed regionally planned irrigation projects is **26,045 ha** (includes irrigation development under multipurpose water resources management and development projects) benefitting over **2,255,860** people.



Box 6: Wad Meskin Irrigation Project (Sudan)

This irrigation scheme located on the eastern bank of the Rahad River in Al Gadarif State, South Eastern Sudan, was identified and developed under the Eastern Nile Irrigation and Drainage Study (ENIDS). The current phase (Phase 1) of the project developed an irrigation command area of

7,500 hectares in the Wad Meskin Village. Water for supplementary irrigation is obtained from the Wad Meskin Barrage on the Rahad River, and transported by a 10 m³/sec feeder canal.



Future plans for the scheme are as follows:

Phase 2 would comprise the development of a new irrigation scheme with a command area 100,000 ha, to be irrigated with water diverted from Dinder River by Dinder Barrage via a 100 m³/s canal linking Dinder and Rahad Rivers. Phase 2 also includes the widening and extension of the Wad Meskin feeder and main canals.

Phase 3 would comprise the construction of the Roseires Canal possibly upto the Dinder Barrage, where it would be linked to the Phase 2 conveyance system. Further extension to 185,000 ha is also to be considered.



6

WATERSHED MANAGEMENT

The Nile Basin is richly endowed with terrestrial and aquatic ecosystems comprising of biologically diverse assemblages of plant and animals. Increasing pressure is being exerted on the natural environment in the Nile Basin leading to its degradation and destruction. Expanding agriculture and livestock husbandry, bushfires, rapid urbanization, mining, unsustainable extraction and exploitation of natural resources, and natural disasters, are the leading causes of environmental degradation in the basin. The root causes of the rapid degradation of the basin's environment are population growth, poverty, civil insecurity, general economic growth, climate change, and weak policy, legal, institutional frameworks. The degradation manifest in many forms, including land-use change, habitat destruction, habitat fragmentation, decline in biodiversity, and water pollution.

Countries of the Nile region have been cooperating over many years and under different frameworks to manage the watershed of the Nile and halt its degradation. Cooperative watershed management

is important because it: (a) supports the protection and restoration of the natural function of floodplains, wetlands and forests, including flood buffering, increasing water infiltration, water purification and maintaining dry season water flows; (b) preserves natural habitats and ecosystems thereby supporting the conservation of biodiversity; (c) as a special focus, aims to protect headwater regions or 'water towers' from where the streams that feed the transboundary rivers originate; (d) contributes to improving navigation and lifetime of reservoirs by reducing soil erosion, sediment transport and sedimentation in river channels and reservoirs; (e) helps to build local resilience and adaptation to impacts of climate change through imparting knowledge and skills on sustainable watershed management practices; and (f) fosters cooperation and dialogue between riparian countries, which can help prevent conflicts arising from water scarcity, pollution, reservoir siltation, or competing demands for water. The watershed management projects implemented by regional organizations operating in the Nile Basin are listed below.

Watershed Management-Impact

The area of watershed under sustainable management practices from completed regionally planned watershed management projects is **626,704 ha**, while the beneficiaries from watershed management interventions are **1,132,000** people.



Box 6: Tana and Beles Integrated Water Resources Development Project



The Tana and Beles project was a project to develop enabling institutions and investments for integrated water resources planning, management, and development in the Tana and Beles Sub-basins. The project had four components: (a) sub-basin Resources planning and management; (b) natural resource management investments focusing on watershed development and flood management; (c) growth-oriented investment facilitation; and (d) Project Management. The project was funded by the World Bank and Federal Government of Ethiopia to a tune of US\$ 74.46 million and benefitted 400,000 people.

The project objective was to develop enabling institutions and investments for integrated water resources planning, management, and development in the Tana and Beles Sub-basins. Project interventions included providing access to clean drinking water and providing farming inputs; supporting alternative income-generating activities such as beekeeping and livestock rearing; implemented physical (e.g. soil bunds and trenches) and biological (e.g. increasing soil cover by planting trees and fodder crops) treatments to slow and reverse degradation, and developing an Integrated Water Resources Management (IWRM) plan for the two sub-basins. Community members were also involved in an innovative monitoring and evaluation of hydrological and sedimentation process at the affected watersheds. The project also established the Tana and Beles sub-basin offices, and supported training of watershed management experts from Egypt, Ethiopia and Sudan. The project sponsored study tours within the Nile Bains and to China and India.

Some of the quantitative achievements of the project are the following: 23 hydrometric stations rehabilitated and 7 new stations constructed; 20 groundwater monitoring stations were established; 19 flood early warning stations established and 1 weather radar installed; a water quality monitoring network comprising 25 sampling stations was established; and 96 samples were taken and analysed; watershed development plans for 163 community watersheds were prepared; 44,355 households adopted improved soil and water management practices; 7,671 ha have been planted with new forest; 5,506 ha of existing community forests were protected; 14 small scale irrigation schemes with an irrigation command area of 1,000 ha were rehabilitated benefiting 3,300 households. 14 irrigation cooperatives were established; 18 primary schools were rehabilitated and 91 primary schools were provided with equipment; 15 health posts were rehabilitated while 36 health posts were provided with equipment; 6 village water supply schemes were rehabilitated benefiting 74,000 people; and 26,066 farmers trained in soil and water conservation and watershed management measures.

Photo credit: Africa Geographic



7

TRANSBOUNDARY LAKES ENVIRONMENT & FISHERIES RESOURCES MANAGEMENT

The drainage area of the Nile River has a number of lakes, small to large, that together with associated wetlands, support diverse communities of aquatic flora and fauna. Some of the lakes are wholly located within one country, while others are shared by two or more countries. The lakes that cross international boundaries include Victoria, Edward Albert, Cyohoha, Rweru, Jebel Aulia Reservoir, and Lake Nubia/Lake Nasser. Cooperation among riparian countries in the management of the transboundary lakes is essential to ensure equitable and sustainable use of the shared water, fisheries and other ecosystem resources, and for promotion of regional peace and stability.

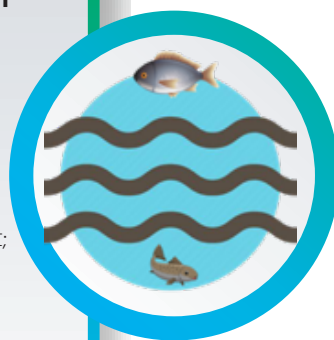
Specifically, transboundary cooperation in the management of shared lakes is important because it: (a) can prevent conflicts over resource allocation and use (such as fishing rights) and promote a fair distribution of benefits through, inter alia, establishing legal frameworks that define

the rights and responsibilities of each riparian country and provide a structured foundation for addressing the sustainable management and development of the shared lakes; (b) it allows countries to jointly address environmental conservation challenges that the lakes face, such as habitat degradation, pollution, and over-extraction of resources; the collective approach enhances the chances of preserving biodiversity and maintaining ecosystem health; (c) enables countries to develop emergency response plans and coordinate efforts to mitigate the impacts of natural and man-made disasters on the lakes; and (d) facilitates the building of trust, promotion of diplomatic relations, and reducing the likelihood of tensions and conflicts thereby contributing to regional peace and stability.

The regional actors in the Nile Basin have over the years developed a number of projects that support collaborative efforts at the sustainable management and development of transboundary lakes in the Nile Region. The key projects are listed below.

Transboundary Lakes Environment And Fisheries Resources Management - Impact

Lake environment and fisheries management programs have been implemented on four transboundary lakes: Lake Nasser/ Nubia; Lakes Edward and Albert and Lake Victoria. Interventions under the programs include development sustainable lake and fisheries management plans, strengthening policy and legal frameworks for joint management of shared lakes; establishing joint management institutions for lake management; implementing watershed and pollution control activities; training farmers in sustainable agricultural practices, training fishermen in sustainable fisheries and aquaculture production practices, and climate change adaptation measures. The interventions have benefitted 1.2 million people.



Box 6: Lake Victoria Environmental Management Project I and II.

LVEMP I: The Lake Victoria Environmental Management Program, phase I was executed from 1997 to 2004 and was a comprehensive program funded by the World Bank and GEF, and implemented by the three founding members of the East African Community (Kenya, Tanzania and Uganda). LVEMP I was aimed at rehabilitation of the lake's ecosystem for the benefit of the population in the catchment, their national economies and the global community. The Program had eight components that were located within different relevant government departments in the three Partner States. The components were: (1) control of water hyacinth infestation; (2) strengthening of fisheries research and management; (3) water quality and ecosystems

management; (4) management of industrial and municipal effluents; (5) conservation of soils and water, and management of agrochemical use within the region; (6) capacity building; (7) involvement of local communities and other stakeholders; and (8) project management. The achievements of the project included the establishment and joint operation of a network of lake water quality monitoring stations; estimation of nutrient, sediments and other pollutant loads into Lake Victoria from non-point land sources, industrial and municipal effluents, and atmospheric wet and dry deposition. The project also carried out capacity building through training of students at MSc and PhD levels, and provision of field water quality measurement equipment.



The LVEMP Project made an important contribution to controlling water hyacinth infestation on Lake Victoria

LVEMP II: - 2009 to 2017: The Lake Victoria Environmental Management Project Phase Two (LVEMP II) was financed by the Global Environment Facility (GEF), World Bank (IDA), SIDA and the Governments of Kenya, Tanzania, Uganda, Rwanda and Burundi. The project had an ecosystem monitoring component under which East African Community standards for

discharge of municipal and industrial effluents were harmonized and approved by EAC Council of Ministers. LVEMP II also had interventions on water quality including establishing a Lake Victoria Basin-wide Water Resources Information System (WRIS) and partial development of a water quality monitoring protocol for Lake Victoria Basin

Box 6: Multinational Lakes Edward and Albert Integrated Fisheries and Water Resources Management Project (LEAF II)

The Multinational Lakes Edward and Albert Integrated Fisheries and Water Resources Management Project (LEAF II) had as its objective to ensure sustainable utilization of fisheries and allied natural resources of the Lakes Edward and Albert Basin through harmonized legal framework and policies. The project had two main interventions: (a) fisheries resources development and management, and (b) integrated water resources management. The project benefited 400,000 people in the two countries.

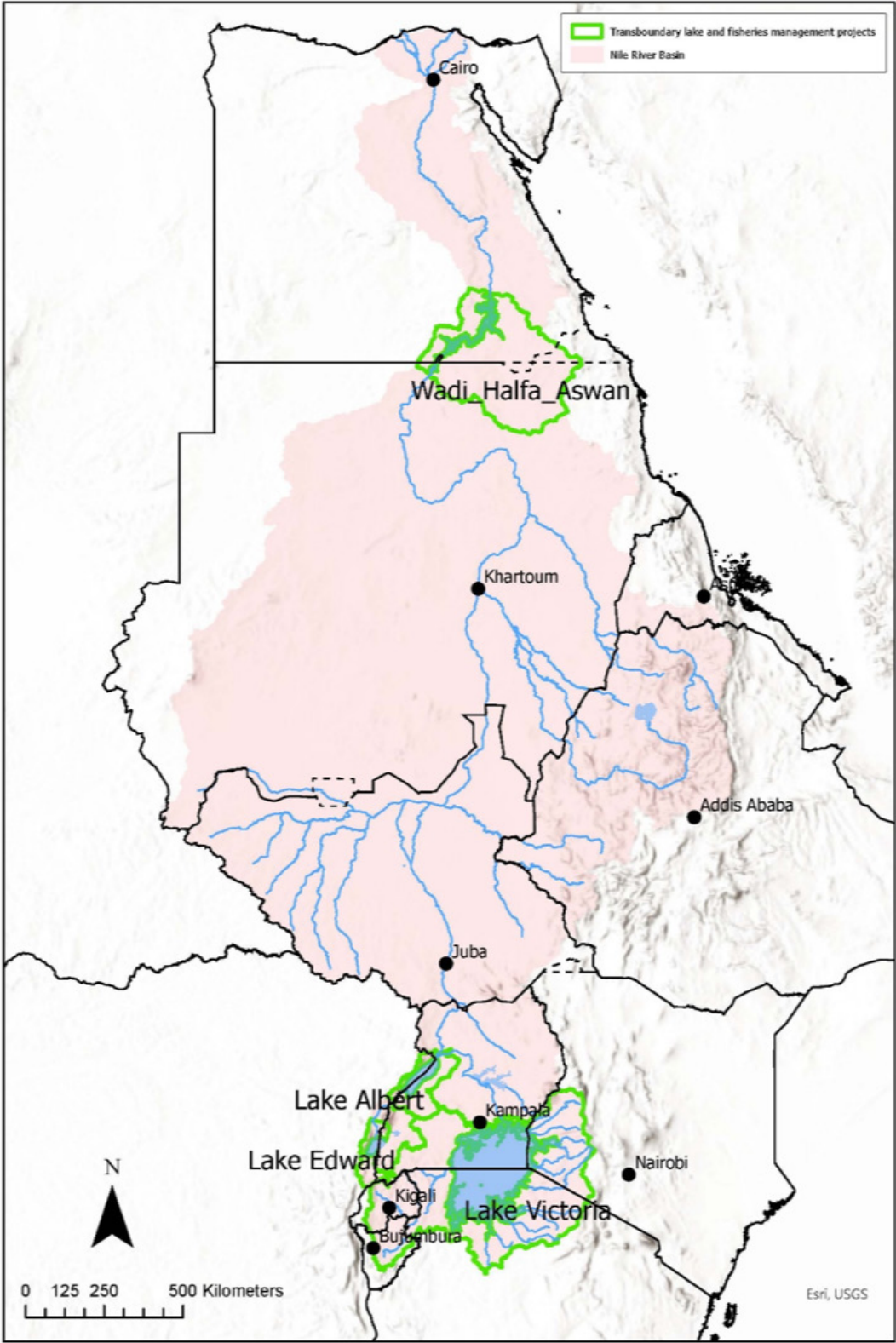
Interventions under the project included the following:

- Conducting of two Fisheries Framework Surveys and Catch Assessment Surveys to estimate the number of fishermen, fishing vessels, fishing gears, and catch species and catch volumes on the two lakes;
- purchased patrol boats and
- Adoption of harmonized priority legislative and policy provisions in fisheries and aquaculture adopted by the two countries for both lakes;
- 4 patrol boats (two per country) were procured; patrols to control illegal fishing activities were intensified including joint patrols by the two countries.
- 606 people trained and equipped with skills in financial literacy as well as in the alternative livelihood enterprise of commercial goat rearing (62% women; 38% men).
- A Basin Strategic Investment Plan was prepared.
- A permanent transboundary basin organization for Lakes Edward and Albert was designed and an agreement for its establishment was endorsed by the two countries.
- Water quality monitoring networks covering the two lakes, and their watersheds was designed.
- Two fully equipped mobile water quality testing laboratories were supplied, one per country.
- Bathymetric surveys of the two lakes were conducted and bathymetric maps for the two lakes prepared.
- A basin-wide aquatic invasive weed management plan was developed.



One of the fisheries patrol boats supplied under the LEAF II Project

Transboundary lakes and fisheries management map





8

MULTI-PURPOSE WATER RESOURCES MANAGEMENT AND DEVELOPMENT PROJECTS

Among the types of projects prepared and supported by regional organizations in the Nile region are multi-purpose water resources management and development projects. This type of project typically (but not always) comprises of a small-to medium size dam and reservoir that address various water-related challenges while providing a range of benefits to the riparian countries residing in their vicinity. Multipurpose dams are an important tool for attaining water security, building resilience of communities and ecosystems to impacts of climate change, and fostering cooperation among riparian states.

The specific functions served by multi-purpose reservoirs include the following:

- Water storage for multi-purpose use; water flow regulation by storing water in wet seasons and releasing it in the dry season or during droughts for multi-purpose use, including agriculture and hydropower production, livestock watering, and drinking water supply.
- Flood control, by storing excess water during periods of heavy rains, and releasing it gradually.
- Hydropower energy production – the dam may have one or more turbines used to generate electricity from water storage in the reservoir.
- Ecosystem function – water can be stored in reservoir and released to meet environmental flow requirements during the dry season.
- Recreation and tourism – recreation facilities may be constructed on the banks of the reservoir, and recreation and tourism activities like boating, fishing, and sight-seeing may be promoted at the reservoir.
- Sedimentation control – Reservoirs trap sediment, preventing it from flowing downstream and causing interference of downstream hydropower plants, sedimentation in irrigation canals and along navigation channels.

Multipurpose WRMD Projects – Impact

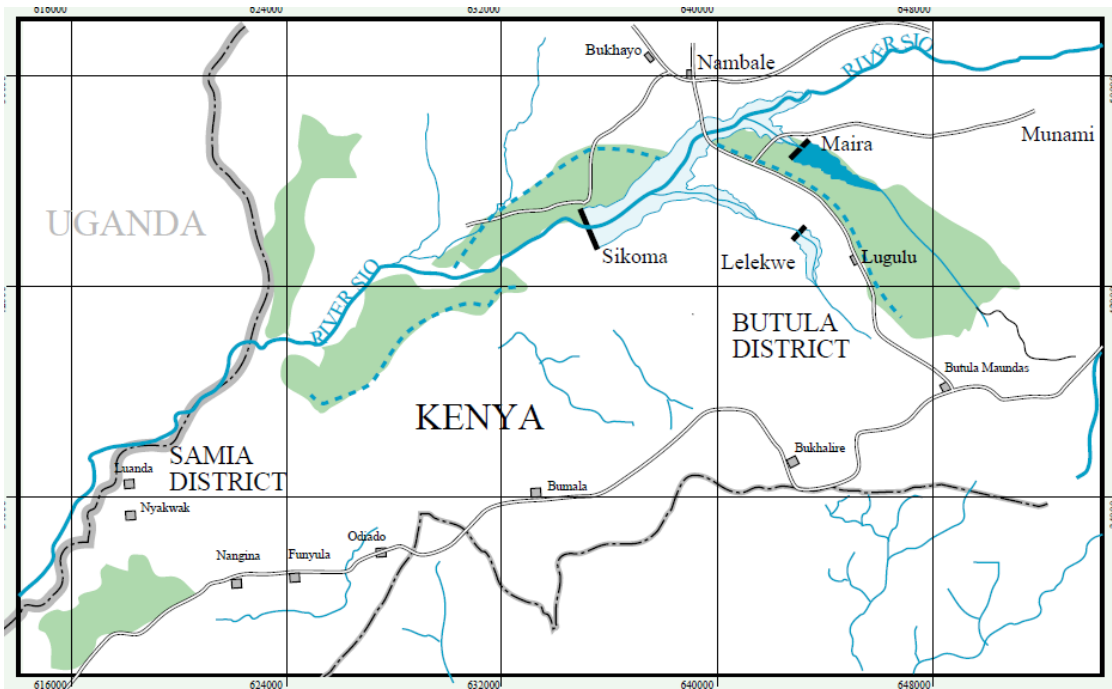
The increase in multi-purpose water storage capacity from completed projects and projects under construction is **122 MCM**; the number of people that have gained access to safe drinking water is **718,494** while those that gained access to improved sanitation is **3,600**; installed hydropower generation capacity from multipurpose dams is **8 MW**; area of farmland equipped for irrigation is **25,800 ha**; area of watershed under improved management is **500 ha**; and total beneficiaries from multipurpose dams is **2.260 million**.



Box 6: Maira Dam/Lower Sio Multipurpose Water Resources Development Project

The Maira Dam/Lower Sio project is located in Matayos and Nambale Sub-counties of Busia County, western Kenya and is part of the investment programs prioritized by Kenya for implementation. The project, which seeks to address the issue of unreliable rainfalls driving food insecurity in the area, comprises of a 11 m height dam, 810 m wide, with maximum storage capacity of 6.2 MCM, and hydropower generation capacity of 1.05 MW. The Maira Dam will command an irrigation area of 2,000 ha in the lower Sio catchment and benefit 12,000 people. Expected benefits Include creation of employment opportunities, improved incomes and livelihoods, environmental protection, energy provision and poverty reduction.

Feasibility/preliminary designs and ESIA/RAP were prepared under a World Bank – NBTf (2009-2012) grant and were completed in December 2012. The Lower Sio Irrigation scheme to be served by Maira dam is under construction with funding from the Government of Korea through National Irrigation Board (NIB) of Kenya. Funding for dam infrastructure is still under mobilization.



Location of the Maira Dam/Lower Sio Multipurpose Water Resources Development Project



9

NAVIGATION, INLAND WATER TRANSPORT AND REGIONAL TRADE

Navigation is of critical importance in transboundary water management because of its role in facilitating transport and trade between riparian countries. Navigable waterways serve as arteries for trade, enabling efficient movement of goods and people between riparian countries, promoting market integration, creating jobs, and boosting regional economies. Navigation can also contribute to boosting regional tourism and recreation. Water transport has the advantage over other modes of transport in being cheap, energy efficient, relatively safe, and environmentally friendly.

Long stretches of the Nile River are navigable, and have potential to support inland water transport and intra-basin trade. The important sections of the Nile for inland water transport are Lake Victoria, sections of the White Nile in South Sudan, and the Main Nile in Sudan and Egypt. Despite the considerable potential for navigation, there is little use of water transport in the Nile region, especially in the headwater areas in the Ethiopian highlands, and Nile Equatorial Lakes region. Notwithstanding, navigation remains significant in the Main Nile, especially in Egypt. Major cities in Egypt like Aswan, Luxor and Cairo are connected

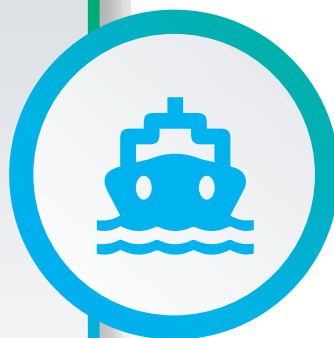
by water routes which are important for cargo transport as well as tourism and recreation. River cruises are popular among tourists in Egypt, and offer a unique perspective on the historical sites and landscapes along the river course.

There are a number of challenges that hamper the development of navigation along the Nile River reaches. These include inadequate infrastructure (such as ports, terminals, and navigational aids); insufficient investment in navigation; large variations in the water levels, especially in the Eastern Nile sub-basin; limited connectivity with other transport modes like road, rail and air; and presence of infrastructure such as the Jebel Aulia, Sennar, and Roseires dams – that either do not have locks, or have locks that do not function.

So far, one project on Lake Victoria has been implemented by Nile Riparian countries in the area of navigation. A number of other projects are at planning stage. Cooperation in this area is important because it provides a mechanism for promoting regional trade and economic integration, and promoting regional peace and stability.

Navigation- Impact

The Multinational Lake Victoria Maritime Communication and Transport Project, which is the only navigation project implemented by Nile Riparian countries in recent years improved four parts, constructed 3 maritime rescue coordination centres and installed navigation aids along the main shipping routes on the lake (600 km). The project benefited 4 million people.



Box 6: Multinational Lake Victoria Maritime Communications and Transport (MLVMCT) Project



Wagon ferries at Port Bell, Kampala

The MLVMCT project was aimed at improving maritime transport infrastructure including maritime communications, navigation safety aids and emergency search services on Lake Victoria. Project interventions included construction of navigation aids in Kenya, Tanzania and Uganda; improvement of port facilities by construction of Mwanza Mwalon's jetty, Kiongoni ferry jetty, Sentry rock and Nansio port; gazettelement of the number 110 as an emergency mobile number that can be used in distress, search and rescue operations on Lake Victoria. The project further constructed three maritime rescue coordination centres in Mwanza, Entebbe and Kisumu; established marine communication boosters spaced at 400 kms intervals around the lake; developed an advanced communication strategy based on water resistant phones used by the fishermen; developed a Maritime Transport Strategy for EAC; and raised awareness on maritime safety on Lake Victoria.



10

DEVELOPMENT OF A NEW INVESTMENT PROGRAM FOR THE NILE RIVER BASIN

10.1 Learning from Past Cooperative Investments

Decades of collaboration through the various Regional Economic Communities (RECs) and specialized regional organizations has yielded tangible benefits across the Nile Basin as documented in the preceding chapters. Despite the significant contributions of the implemented projects, a critical review reveals several areas requiring strategic enhancement:

1. **Scale inadequacy:** The current level of investment, while substantial, remains insufficient relative to the basin's development needs. The 10.78 million direct beneficiaries represent less than 4% of the basin's population, indicating an urgent requirement for scaled-up intervention.
2. **Uneven geographic distribution:** The distribution of projects and their ensuing benefits has been uneven across riparian countries and sub-basins. This uneven distribution undermines the principle of equitable development and may exacerbate regional disparities. The challenge necessitates a more balanced approach in future programming.
3. **Sectoral imbalances:** Investment allocation has favored hydropower generation and regional power interconnection at the expense of other critical sectors. Notably, irrigation expansion and ecosystem protection have received inadequate attention despite their fundamental importance for food security and environmental sustainability.
4. **Untapped opportunities:** The existing portfolio has not adequately leveraged international climate finance mechanisms, representing a significant missed opportunity given the basin's vulnerability to climate change and the global emphasis on climate-resilient development.
5. **Coordination deficiencies:** A historical lack of robust coordination among regional organizations has, at times, led to duplication of efforts, concentration in specific sub-basins while neglecting others, and suboptimal utilization of the region's scarce human, logistical, and financial resources. This can foster unhealthy competition rather than synergistic collaboration.

10.2. The Imperative for a Renewed Approach: The Heads of State Mandate

The development of a new investment approach within the Nile Basin gained political momentum following the First Summit of Nile Basin Heads of State and Government, convened by H.E. Yoweri Kaguta Museveni, President of Uganda, on June 22, 2017, at State House Entebbe. This historic summit, held during Uganda's chairpersonship of the Nile Basin Initiative, formally acknowledged critical development challenges facing the region. The Summit identified five interconnected challenges requiring urgent attention:

- **Rapid population growth:** Exponential demographic expansion placing increasing pressure on natural resources and infrastructure.
- **Energy poverty:** Chronic electricity deficits, particularly in upstream areas where the Nile's tributaries originate.
- **Limited industrialization:** Persistent economic dependence on primary sectors in upstream countries.

- Agricultural subsistence: Continued reliance on traditional, low-productivity farming systems.
- Environmental degradation: Accelerating destruction of ecosystems essential for river flow sustainability.

Based on this assessment, the Summit articulated two overarching development priorities:

1. Addressing under-development: Addressing the systematic under-development of water resources and related potentials that constrains countries' ability to meet growing demands for food and energy while improving living standards.
2. Environmental restoration urgency: Breaking the vicious cycle between environmental degradation and deepening poverty through comprehensive restoration and protection of the fragile Nile River Basin environment.

10.3. The Nile River Basin Investment Program (NR-BIP): A Coordinated Strategy for Transformative Development

In response to the lessons learned and the strategic direction provided by the HoSG, regional organizations operating within the Nile Basin have collaboratively developed the Nile River Basin Investment Program (NR-BIP). The NR-BIP is conceived as a high-visibility flagship regional program, comprising jointly identified, transformative investment projects.

Core aim: To drive climate-resilient socio-economic development across the Nile River Basin while concurrently reversing environmental degradation within its watershed.

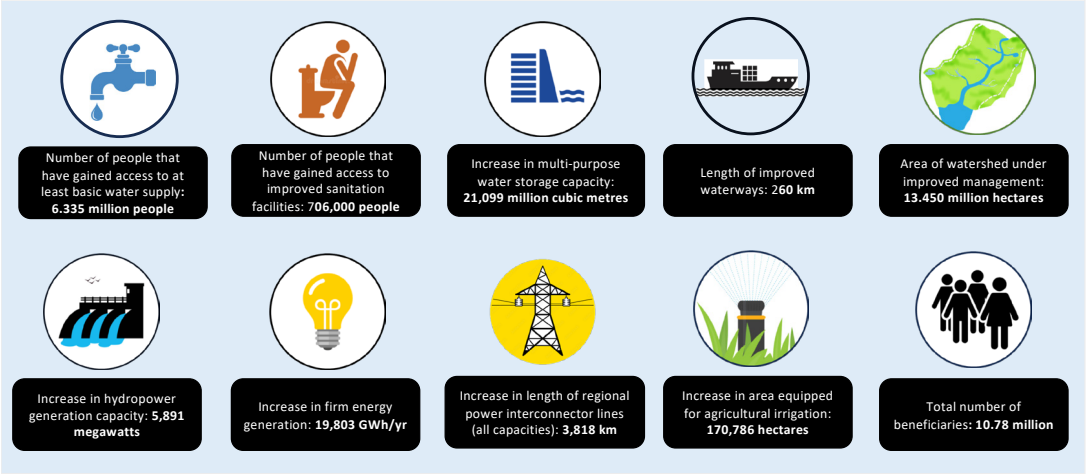
Core principles of the NR-BIP:

- Learning and adaptation: Incorporating insights from past project implementation experiences.
- Scaling up investment: Significantly increasing the volume and scope of water-related investments.
- Enhanced coordination: Fostering robust coordination and synergies among regional organizations.
- Efficiency and optimization: Avoiding duplication of efforts and promoting greater efficiency in the use of financial, human, and technical capacities.
- Balanced development: Ensuring a more equitable distribution of projects and benefits, and addressing a wider range of thematic priorities.

10.4. Initial Portfolio and Potential of the NR-BIP: A Glimpse into Future Impact

The first intake of projects for the NR-BIP has been identified from a pool of initiatives that are at an advanced stage of preparation, specifically those with: (1) completed feasibility studies; (2) ongoing feasibility studies; or (3) secured financing for feasibility studies. This rigorous selection ensures readiness and a higher probability of successful implementation.

The candidate portfolio for this initial phase comprises 59 projects, requiring a total investment of US\$15.7 billion. This collection of projects reflects a potentially more diversified and strategically targeted portfolio designed for broader socio-economic upliftment and integration, aligning with the identified needs for industrialization and trade. The aggregated impacts of the 59 projects is summarized in the graphic below.



The key results of the potential first intake of the NR-BIP Investment Program. Total investment: US\$ 15.7 billion.

10.5. Conclusion and Strategic Justification

The NR-BIP represents a paradigm shift from fragmented interventions to a cohesive, basin-wide investment strategy. It is born from a clear understanding of past limitations and a unified vision articulated at the highest political level. By prioritizing coordinated planning, resource mobilization (including leveraging opportunities like international climate finance), and efficient implementation, the NR-BIP is strategically positioned to: (a) address the critical development challenges highlighted by the Nile Basin Heads of State; (b) unlock the immense, yet largely untapped, potential of the Nile River for sustainable socio-economic advancement; and (c) contribute significantly to poverty reduction, food and energy security, environmental sustainability, and enhanced regional cooperation and stability.

The successful implementation of the NR-BIP is not merely an investment in infrastructure, but an investment in the future of millions of people and the ecological integrity of one of Africa's most vital natural resources. It calls for unwavering commitment from all riparian states, robust partnerships with international development actors, and diligent oversight by the participating regional organizations. This strategic program provides the blueprint for a more prosperous, resilient, and integrated Nile River Basin.

11 PROJECT TABLES

**COMPLETED PROJECTS AND PROJECTS
UNDER IMPLEMENTATION**

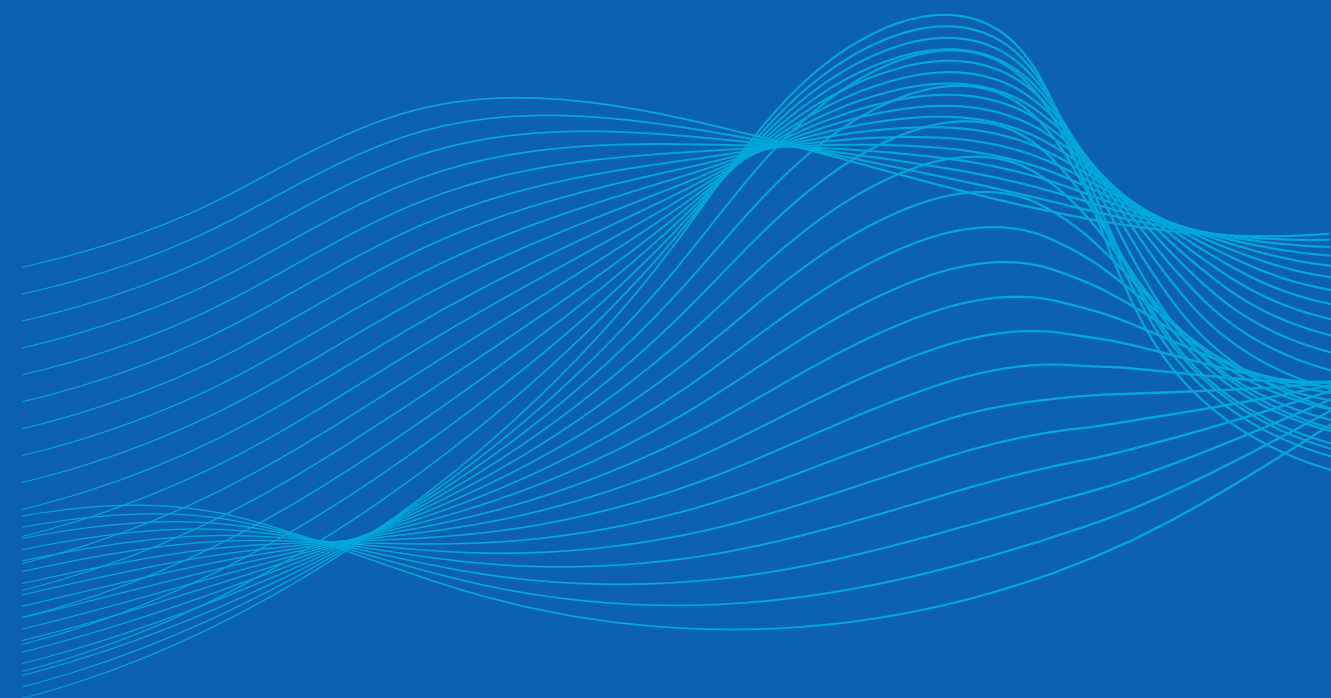


Table 1: Water Supply and Sanitation

	Project Title	Program	Countries	Investment Finance (US\$ million)	Funding Source	No. of people that gain access to safe drinking water	No. of people that gain access to safely managed sanitation	Status 2024
1	The Lake Victoria Water and Sanitation Initiative (LVWATSAN I) 2010-2018	LVBC	Kenya, Tanzania, Uganda (KE: Kisii, Homa Bay, Bondo; TZ: Bukoba, Bunda, Muleba, Mutukula; UGA: Nyendo/Ssenyange, Bugembe, Kyotera)	120				Completed and handed over in 2018
2	The Lake Victoria Water and Sanitation Initiative (LVWATSAN II) 2011-2022	LVBC	Burundi, Kenya, Rwanda, Tanzania, Uganda (UGA: Mayuge, Buwama-Kay-abwe cluster, Bukakata and Ntungamo; KE: Kericho, Keroka, Isebania; BUR: Ngozi, Musinga, Kayanza; RWA: Kay-onza, Nyanza, Nyagatare; TZ: Nansio, Geita, Sengerema)	102	AfDB	840,000	280,000	Completed and hand over in 2022.
3	Katuna water supply and sanitation project	NELSAP	Uganda	0.173	SIDA, NORAD, EU, GoU	10,000		Completed and handed over in 2009.
4	Mella water supply and sanitation project	NELSAP	Uganda	0.173	SIDA, NORAD, EU	10,000		Completed and handed over in 2009.
5	Augmentation of Bomet Water Supply, Sewerage Disposal and Treatment	NELSAP	Kenya	0.173	SIDA, NORAD, EU, GoK	20,000		Completed and handed over in 2012.
6	Angurai Water Supply Scheme	NELSAP	Kenya	0.16	SIDA, NORAD, EU, GoK	10,000		Completed and handed over in 2007.
7	Project for the Rehabilitation of Nzove I Water Treatment Plant	LVBC	Rwanda	23.50		1,960,000		Financial Closure (S3B) – Financial secured in 2024

Table 2A: Hydropower Generation Development

No.	Project Title	Program	Countries	Investment Finance (US\$ million)	Funding Source	Installed Hydro-power Generation Capacity (MW)	Amount of Firm Energy Generation (GWh/yr)	Length of Power Transmission Lines (km)	Capacity of Power Lines (kV)	Direct Beneficiaries	Status 2024
1	Regional Rusumo Falls Hydroelectric Multipurpose Project	NELSAP, COMESA PIDA-PAP 1	Burundi, Rwanda, Tanzania	500	World Bank, AfDB	84	445	378	220	1,146,000	Completed and commissioned in 2022
2	Ruzizi III Hydro-power Plant	EGL, COMESA, EAPP Master Plan, PIDA-PAP 1	Burundi, DR Congo, Rwanda	650	AfDB, EIB, World Bank, KfW	206	1,210	8.3	32	30,000,000	Under construction (\$4B)

Table 3A: : Regional Power Interconnection and Power Transmission

No.	Project Title	Program	Countries	Investment Finance (US\$ mil)	Funding Source	Length of Power Transmission Lines (km)	Capacity of Power Lines	Direct Beneficiaries	Status 2024
1	Burundi-DRC-Rwanda-Uganda-Kenya (NEL GRIDS) Power Interconnection.	NELSAP	Burundi, Democratic Republic of Congo, Rwanda, Kenya, Uganda	166		200	220 kV		Completed and commissioned in 2020.
2	Uganda (Tororo) - Kenya (Lessos) -Power Interconnection	NELSAP, COMESA, EAPP Master Plan	Kenya, Uganda			260	220/400 kV		Completed and commissioned in 2020.
3	Uganda (Mbarara) - Rwanda (Mirama-Shango) Power Interconnection	NELSAP	Rwanda, Uganda			172	220/400		Completed in 2019; additional work of installation of a communications booster at Shango sub-station ongoing

No.	Project Title	Program	Countries	Investment Finance (US\$ mil)	Funding Source	Length of Power Transmission Lines (km)	Capacity of Power Lines	Direct Beneficiaries	Status 2024
4	DRC (Buhandahanda-Goma) - Rwanda (Gisenyi-Kibuye-Shango) Power Interconnection	NELSAP, COMESA	DR Congo, Rwanda			293	220/400		Completed and commissioned in 2020.
5	DR Congo (Kamanyola) - Burundi (Bujumbura) Power Interconnections	NELSAP, COMESA	Burundi, DR Congo			78	220		Completed and commissioned in 2020.
6	DRC (Kigoma) - Rwanda (Butare) - Burundi (Ngozi-Gitega) Power Interconnection	NELSAP	Burundi, DR Congo, Rwanda			200	220		Under construction
7	The Ethiopia-Sudan Power System Interconnection Project	ENTRO, EAPP	Ethiopia, Sudan	66.09	GoE GoS	230.5	230/220 kV	1,400,000	Completed and commissioned in 2013.
8	Goma-Buhandahanda Power Interconnection within the Democratic Republic of Congo (DRC).	NELSAP, COMESA	Democratic Republic of Congo		AfDB	95	220 kV		Completed and commissioned in 2020.
9	ZTK Transmission Interconnection (Tanzania Section): Iringa-Mbeya	NELSAP, COMESA	Tanzania	191		292	400 kV		Completed and commissioned in 2020.
10	ZTK Transmission Interconnector (Kenya section): Isinya - Suswa	NELSAP, COMESA, EAPP Master Plan	Kenya, Tanzania	50	JICA, AfDB	96	400 kV		Under construction.
11	ZTK Transmission Interconnector (Tanzania Section): Singida - Namanga	NELSAP, COMESA, EAPP Master Plan	Kenya, Tanzania	258.82	AfDB, JICA	414	400 kV		Completed and commissioned in 2020.
12	The Kenya (Rongai/Kisumu) - Tanzania (Mwanza) Power Interconnector Project	NELSAP	Kenya, Tanzania	281	JICA	496	400 kV	2,772,509	Completed and commissioned in 2020.

No.	Project Title	Program	Countries	Investment Finance (US\$ mil)	Funding Source	Length of Power Transmission Lines (km)	Capacity of Power Lines	Direct Beneficiaries	Status 2024
13	DR Congo (Kamanyola) – Burundi (Bujumbura) Power Interconnection	NELSAP, COMESA	Burundi, Democratic Republic of Congo			78.8	220 kV		Under construction.
14	Tanzania (Mbeya) – Zambia (Kasama-Kabwe) Power Transmission Line	NELSAP, COMESA	Tanzania	574		1322	330/ 400 kV; 9 sub-stations		Under construction.
15	ZTK Transmission Interconnector (Tanzania Section): Iringa-Shinyanga	NELSAP, COMESA, EAPP Master Plan	Kenya, Tanzania	242	World Bank, JICA, AfDB, EIB, ECDF	670	400 kV		Under construction.
16	ZTK Transmission Interconnector (Tanzania Section): Mbeya-Tunduma	NELSAP, COMESA, EAPP Master Plan	Kenya, Tanzania	242	AFD, World Bank	396	400 kV		Under construction.
17	ZTK Transmission Interconnector (Zambia Section) Kasama - Kabwe	NELSAP, COMESA, EAPP Master Plan	Kenya, Tanzania	300	EC, World Bank	905	300 kV		Under construction.
18	Uganda (Olwiyo) – South Sudan (Juba) 400 kV Power Transmission Interconnection	NELSAP	South Sudan, Uganda	170		320	400 kV		Under construction.
19	Sudan (Rank) – South Sudan (Malaka) 220kV High Voltage Power Transmission Interconnector	NELSAP, EAPP Master Plan	South Sudan, Sudan						Under construction.

Table 4A: Agricultural Irrigation And Drainage

No.	Project Title	Pro-gram	Coun-tries	Investment Finance (US\$ mil-lion)	Funding Source	Area of farmland equipped for irrigation (ha)	Area under fish ponds or cage fish farming (ha)	Area of water-shed under im-proved manage-ment (ha)	No. of jobs created	Direct Beneficia-ries	Status 2024
1	Sio-Siteko Wetland Management Plan (Busia Community Fishponds)	NELSAP	Kenya, Uganda	2.00				415	200	1,000	Completed and handed over in 2012
2	Buswahili Irriga-tion Scheme	NELSAP	Tanzania	0.63		45			720	360	Under Con-struction (\$4B)
3	Lukhuna gravity fed irrigation demonstration scheme	NELSAP	Uganda			100				1,000	Completed and handed over in 2012
4	Chepkaraam Suswo and Sitabicha Irrigation demon-stration projects	NELSAP	Kenya			100				1,000	Completed and handed over in 2012

Table 5A: Watershed Management

No.	Project Title	Program	Countries	Investment Finance (US\$ million)	Funding Source	Area of watershed under improved management (ha) Area of planted forest (ha)	Direct Beneficiaries	Status 2024
1	Tana and Beles Integrated Water Resources Development Project.	ENTRO	Ethiopia	74.65	World Bank (IBRD/ IDA)IDA)	79,288 7,671	400,000	Completed and handed over in 2011
2	Watershed management in priority catchments (Lake Nasser/ Lake Nubia)	ENTRO	Egypt/ Sudan	17.074		525,000	700,000	Completed and handed over in 2011
3	Watershed management in priority catchments (Dinder, Ingasena and Lower Atbara)	ENTRO	Sudan					Completed and handed over in 2011
4	Regional Pastoral Livelihoods Resilience Project	IGAD	Ethiopia, Kenya, Uganda	197.00	World Bank (IBRD/ IDA)	13,830 Other outputs: Number of water infrastructure rehabilitated or newly built: 358	1,557,000 (also has access to at least basic water supply)	Completed and handed over in 2021
5	Strengthening the capacity of IGAD towards enhanced drought resilience in the HoA - SCIDAIII	IGAD	Ethiopia, Kenya, South Sudan, Sudan, Uganda	17.307	BMZ	40,000		Feasibility (S2B)

Table 6A: Transboundary Lakes Environment and Fisheries Resources Management

No.	Project Title	Program	Beneficiary countries and Sub-basin	Investment Finance (US\$ million)	Scope of Interventions	No. of Beneficiaries
1	The Lake Nasser/Nubia Watershed Management Project	ENTRO	Egypt and Sudan	17.074	Supported the development of a Lake Nasser/Nubia Management (LNNM) Framework to guide the long-term sustainable and integrated management and development of the lake and protection of its ecosystem; training of farmers on efficient irrigation and improved agricultural practices; promoting integrated agriculture and livestock farming systems; training farmers in fish farming; creating shelter-belts to reduce sand encroachment on the lake and settlements; promoting non-farm income generating activities; promoting use of renewable energy sources; establishing micro-finance institutions to improve access to credit; and improving water supply and sanitation systems.	Completed and handed over in 2011
2	Lakes Edward And Albert Fisheries Pilot Project (LEAF I) (2004-2008)	NELSAP-CU	DR Congo, Uganda	8.328 AfDB Beneficiary Governments	This project prepared a sustainable investment and management plan for the joint use of the water and fisheries resources of Lakes Edward and Albert. It also established five fisheries co-management structures on each of the lakes	Completed in 2008
3	Multinational Lakes Edward and Albert Integrated Fisheries and Water Resources Management Project (LEAF II)	NELSAP-CU	DR Congo, Uganda	24.2 GEF	This project aimed to create an enabling environment and strengthening the legal, policy, institutional and regulatory framework for sustainable management of natural resources of Lakes Edward and Albert and integrated management of their catchments. The project will benefit about 400,000 people in DR Congo and Uganda,	Completed in 2018
4	Lake Victoria Environmental Management Project (LVEMP I) (1997 to 2004)	LVBC	Kenya, Tanzania, Uganda	77.6 IDA, GEF, Beneficiary Governments	The project was aimed at rehabilitation of the lake's ecosystem and had eight components: (1) control of water hyacinth infestation; (2) strengthening of fisheries research and management; (3) water quality and ecosystems management; (4) management of industrial and municipal effluents; (5) conservation of soils and water, and management of agrochemical use; (6) capacity building; (7) involvement of local communities and other stakeholders; and (8) project management.	Completed in 2004

No.	Project Title	Program	Beneficiary countries and Sub-basin	Investment Finance (US\$ million)	Scope of Interventions	No. of Beneficiaries
5	The Lake Victoria Environmental Management Project Phase II (LVEMP II) (2009 to 2017)	LVBC	Burundi, Kenya, Rwanda, Tanzania, Uganda	140.141 IDA, GEF, Beneficiary Governments	The project contributed to strengthening the management of the Lake Victoria Basin. It had four components: (1) strengthening institutional capacity for managing shared water and fisheries resources; (2) point sources pollution control and prevention through construction of sanitation facilities (3) watershed management through introduction of sustainable land management practices, and water hyacinth control; and (4) project management. The project developed a draft water resources management policy and action plan; developed a draft Fisheries and Aquaculture Policy for East Africa; supported the harmonization and adoption of standards for discharge of municipal and industrial effluents; established a Lake Victoria Basin-wide Water Resources Information System (WRIS).	Completed in 2017
6	Engaging Private Sector for Green Growth in Lake Victoria Basin (EPSGG-LVB) Project (2018-2023)	LVBC	Burundi, Kenya, Rwanda, Tanzania, Uganda	3.65	The project, which is being implemented through National Cleaner Production Centers of Kenya, Rwanda, Tanzania, Uganda, and Burundi, aims to promote investment and use of resource efficient and cleaner production (RECP) technologies by private businesses in the Lake Victoria Basin. The project has three components: (a) scaling-up RECP activities; (b) strengthening the incentives and enabling environment for RECP; and (c) piloting Green Growth instruments.	Completed in 2023
7	Adapting to Climate Change in Lake Victoria Basin Project (ACC-LVB)	LVBC	Burundi, Kenya, Rwanda, Tanzania, Uganda		The program aims to increase climate resilience in the Lake Victoria Basin through implementation of regional and community-based climate change adaptation interventions/ technologies. Specific interventions include strengthening institutional and technical capacity for integrating climate resilience into trans-boundary water catchment management; strengthening collection and management of climate information; reducing vulnerability of local communities through transfer of climate change adaptation technologies; and promotion of regional resilience to climate change through innovative, community-based projects.	Completed in 2023
8	Lake Victoria Basin Integrated Water Resources Management Programme (LVB-IWRMP) (2018-2024)	LVBC	Burundi, Kenya, Rwanda, Tanzania, Uganda	31.9 EU	The programme has three components, namely (1) promoting harmonization of policy and regulatory frameworks and promoting IWRM approaches; (2) identification, selection and implementation of priority IWRM infrastructure investments in the lake basin; and (3) establishing IWRM database and developing decision support tools for investments and basin management. The project also involves identification and implementation of high priority investments for pollution control in each of the participating countries.	Under implementation

Table 7A: Multipurpose Water Resources Management and Development

No.	Project Title	Pro-gram	Coun-tries	In-vest-ment Fi-nance (US\$ mil-lion)	Fund-ing Source	No. of people that gain access to safe drinking water	Multi-pur-pose water storage capacity (MCM)	Installed Hy-dro-power Gen-eration Capacity (MW)	Amount of Firm Energy Pro-duction (GWh/year)	Area of farmland equipped for irriga-tion (ha)	Area of water-shed under improved manage-ment (ha)	Area of water-shed under improved manage-ment (ha)	Direct Benefi-ciaries	Status 2024
1	Maira Dam Project/ Lower Sio Irrigation Scheme	NELSAP	Kenya, Uganda	48	Korea		4.17	1.05		2,000		12,000	Under construction (S4B)	Feasibility (S2B)
2	Kabuyanda Multipurpose Water Resources Development Project	NELSAP	Uganda	190.1			8.8			3,300	500	32,000	Under construction (S4B)	Feasibility (S2B)
3	Bisarwi Smallholder Irrigation Scheme	NELSAP	Tanza-nia				0.05			500		2,500	Completed and handed over in 2012	Feasibility (S2B)
4	Rwimi Irrigation development and watershed management (Bunyangu-bu)	NELSAP	Uganda							4,000		6,000	Completed and handed over in 2022	Feasibility (S2B)

No.	Project Title	Pro-gram	Coun-tries	In-vest-ment Fi-nance (US\$ mil-lion)	Fund-ing Source	No. of people that gain access to safe drinking water	Multi-pur-pose water storage capacity (MCM)	Installed Hy-dro-power Gen-eration Capacity (MW)	Amount of Firm Energy Pro-duction (GWh/year)	Area of farmland equipped for irriga-tion (ha)	Area of water-shed under improved manage-ment (ha)	Area of water-shed under improved manage-ment (ha)	Direct Benefi-ciaries	Status 2024
5	Bunyonyu Multipurpose Water Resources Development Project	NELSAP	Kenya	260.8		600,000		2		3,000		1,100,000	Under construction (S4B)	Feasibility (S2B)
6	Muvumba Irrigation and Watershed Development Project	NELSAP	Rwanda			118,494	109	3		13,000		1,100,000	158,000	Under construction (S4B)
7	Soono Trans-boundary Multipurpose Water Resources Development Project	NELSAP		10				2				10,000	Under construction (S4B)	Feasibility (S2B)

Table 8A: Navigation, Inland Water Transport, Trade

No.	Indicator/Descriptor	Program	Countries	Investment Finance (US\$ million)	Funding Source	Length of Improved Inland Waterways (km)	No. of Additional Berths Constructed	Volume of total trade along inland waterways (US\$ million)	Direct Beneficiaries	Status 2024
1	Multinational Lake Victoria Maritime Communications and Transport (MLVMCT) Project.	LVBC	Kenya, Tanzania, Uganda	36.584	AfDB	600			4 million	Under implementation
2	Rehabilitation of Kisumu Port	LVBC	Kenya				Get details from Ar-sene			Under implementation



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