Burundi Investment Benefits from the Nile Basin Cooperation

A surveillance station constructed through LEAF II project at Kasenyi (D.R Congo) on Lake Albert. A second one in the D.R Congo by LEAF II is at Vitshimbi on Lake Edward.

Substation at the Regional Rusumo Falls Hydroelectric Project connected to transmission lines that will soon link the power grids of Burundi, Rwanda and Tanzania.

The Regional Rusumo Falls Hydroelectric Project that is being constructed under supervision of NELSAP-CU on behalf of the Governments of Burundi, Rwanda and Tanzania. Burundi will receive 26MW from this project.

NELSAP-CU, JAN 2022
AN OVERHEAD TRANSMISSION LINE GUTI: THE BURUNDI (BUJUMBURA) - D.R CONGO (KAMANYOLA) POWER INTERCONNECTION IS 20% COMPLETE. IT INCLUDES TWO SUB STATIONS, KAMANYOLA SUBSTATION AND BUJUMBURA SUBSTATION. UPON COMPLETION THE PROJECT WILL INTEGRATE THE ELECTRICITY GRIDS OF THE GREAT LAKES COUNTRIES, EGL (BURUNDI, DRC AND RWANDA).

The Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU) headquartered in Kigali, Rwanda, is one of the two investment programs of the Nile Basin Initiative (NBI), the other being the Eastern Nile Subsidiary Action Program (ENSAP), headquartered in Addis Ababa, Ethiopia known as Eastern Nile Technical Regional Office (ENTRO).

NELSAP-CU was established in December 1999 by the Council of Ministers for Water Affairs with a mission to “contribute to the eradication of poverty, promote economic growth, and reverse environmental degradation in the Nile Equatorial Lakes (NEL) region, within the overall NBI’s shared Vision of sustainable socioeconomic development and the equitable use of and benefit from Nile Basin water resources”. NELSAP-CU is governed and reports to the Council of Water Ministers from 10 Nile Basin membership states of Burundi, DR Congo, Kenya, Rwanda, Tanzania, Uganda, Egypt, Ethiopia, South Sudan and Sudan.

NELSAP-CU within its mandate facilitates jointly agreed transformative in-country projects with regional impact/significance and trans-boundary cooperative investment projects related to the common use of the Nile Basin water resources. It also builds regional capacity of countries and provides a platform for implementation coordination of trans-boundary investment projects. NELSAP-CU renders support to national initiatives and focuses on two investment areas of: (i) power development and trade; and (ii) natural resources management and development.

NELSAP-CU has prepared a number of cooperative in country and regional trans-boundary projects, which are at various levels of preparation and implementation.

NELSAP-CU mobilized USD 557.107 cumulative finance to-date for pre-investment programs of and additional USD 493.018 million for investment projects.

Since 20014, NELSAP-CU has gained regional experience, strengthened its capacity and emerged as a reliable regional institution for facilitating key in country and regional investment projects in the Nile Equatorial Lakes Region and beyond. Its key institutional strength lies in project pre-investment feasibility studies, regional projects coordination support, regional strategic analysis, environmental aspects, social economic development, stakeholders’ engagement and development communication, financial and procurement management as well as results based monitoring and evaluation.

NELSAP-CU, in delivering on its mandate, is supported bilaterally and multilaterally by different development partners including, but not limited to, the World Bank, the African Development Bank (AfDB), the Canadian International Development Agency (CIDA), the Governments of Norway (NORAD), Swedish International Development Cooperation Agency (Sida), the Government of The Netherlands, the Japan Bank for International Cooperation (JBIC), Japan International Cooperation Agency (JICA), GIZ (Germany), French Development Agency (AFD), European Union (EU) and KfW (Germany).

NELSAP-CU work has provided direct and indirect benefits to Burundi since 2004 as elaborated below.
The rationale of the project was to ensure reliable access to water, strengthened market linkages and active promotion of private sector as options that can have a dramatic impact on agriculture growth, food security and poverty reduction across the NEL countries.

The project was implemented in collaboration with regional economic communities COMESA and EAC. Under the project, the following studies were completed:

(i) development of the Nile Basin agricultural model,
(ii) assessing the irrigation potential in 7 NEL Countries (Burundi, DRC, Rwanda, Kenya, Sudan, Uganda, Tanzania),
(iii) promotion of best practices on water harvesting and irrigation practices,
(iv) cross border agricultural trade studies focusing on trans-boundary grain/pulses trade,
(v) virtual water/water footprint analysis, documentation and awareness creation as well as
(vi) definition of the NBI agricultural role, based on study of River Basin Organization lessons, national and regional consultation

INTEGRATED MANAGEMENT OF TRANS–BOUNDARY WATER RESOURCES OF LAKES CYOHoha, RWERU AND AKANYARU MARSHLAND PROJECT (2010 - 2012)

The Integrated Management of Trans–Boundary Water Resources of Lakes Cyohoha and Rwert and Akanyaru Marshland project (abbreviated in French as GIRET Project) was financed by the Bank through African Water Facility of the African Development Bank to the tune of Euro770,000. Project results are: i) Integrated Management and Development Plans (IMDP) for the three water resources and Investments Profiles (IP); ii) a Diagnostic Analysis with an environmental screening of the water-resources; iii) two hydro-metric stations operational and mechanisms for data collection and sharing of the shared water resources established; iv) 40 local key actors trained in fishery management and policy, environment and IWRM principles and law implementation.

THE KAGERA RIVER BASIN MANAGEMENT (RBM) PROJECT

The Kagera River Basin Management (RBM) Project, which is implemented in partnership of four countries (Burundi, Rwanda, Tanzania and Uganda), facilitated the installation of hydromet stations in Burundi as follows:

i) 5 Automatic Weather Stations have been installed at Muyinga, Cankuzo, Karuzi, Gitega, Ruyigi.
(ii) 6 River Gauge stations were installed at Kibaya (Ruviryonza River), Gitongo (Ruvuvu River), Shombo (Ndurumu River), Murongwe (Mubarazi River) Mubuga (Nyabaha River) and Nyankanda (Kayongozi River).
(iii) 5 Rain gauge stations were installed at Burasira, Ngozi, Matana, Kabuyenge and Nyakararo. All these enhanced the water resources monitoring in the country.

THE KAGERA WATERSHED MANAGEMENT PROGRAM,

The programme completed in 2012 a basin-wide watershed characterization, and an Integrated Watershed Management Program, which includes a portfolio of “hotspot” watershed and wetland
management projects for rehabilitation. Subsequently, in 2015 Kagera RBM prepared Sub-catchment management/rehabilitation plans for 4 degraded sub-catchments in the four riparian countries including Buyongwe in Burundi to enhance reversal of environmental degradation.

RUHYIRONZA AND AKANYARU MULTIPURPOSE WATER RESOURCES DEVELOPMENT PROJECTS

NELSAP completed the pre-feasibility studies for Ruvyironza and Akanyaru Multi-purpose Dam projects and is now seeking funds from development partners for detailed feasibility, ESIA/RAP studies. The proposed Akanyaru project is envisaged to include a 52 m high dam with storage capacity of 333 Mm3, which will expand irrigation by 10,000 ha in Burundi benefiting about 20,000 farmers, supply potable water for about 600,000 people, and enable hydropower generation of 14.5 MW, and restoration of degraded watersheds upstream of the dam.

On the other hand, the proposed Ruvyironza project is envisaged to include a composite earth fill-concrete dam with storage capacity of 266 Mm3, which will expand irrigation by 14,674 ha, and enable hydropower generation of 22 MW, provide food for about 124,740 people), and enable hydropower generation of 14.5 MW (supply power to 846,00 people), water supply, and restoration of degraded watersheds upstream of the dam.

BUGESERA INTEGRATED WATER AND IRRIGATION PROJECT (RWANDA-BURUNDI)

NELSAP Identified the project potential whereby 42,000 farmers; 50,000 fisher families; 4,500 households involved in alternative income generating activities. NELSAP developed an Integrated Management and Development Plan, which includes: Agricultural Development -- irrigation of 4,200 ha of land; distribution of dairy cows; Catchment management - restoration of 765 ha or banks and lake shores, and 5.5 million agro forestry and fruit trees; Fisheries resources development and management, including 4 community based fish hatcheries, and fishermen cooperatives.
ongoing projects with direct benefits to burundi

Regional Rusumo Falls Hydroelectric Project (RRFHP)

The Regional Rusumo Falls Hydroelectric Project is a power generation infrastructure located at Rusumo Falls at the border of Tanzania and Rwanda. This run of river scheme (at 1,320masl) will have installed capacity of 80MW to be shared equally among Burundi, Rwanda and Tanzania. As of December 2021, the 80MW Rusumo project was 83% complete. With Civil Works almost complete, NELSAP Project Implementation Unit is now following up implementation of Mechanical and Electrical Works which includes the design, supply, installation and commissioning of the Electro-Mechanical equipment. Completion of the project is planned for later in 2022. Its Transmission Lines (TL) will extend from the power generation plant to Gitega in Burundi, Kigali in Rwanda, and Nyakanazi in Tanzania. The project will develop renewable hydroelectric power as part of a broader program to support sustainable management of the Kagera River Basin and promote growth and poverty reduction. NELSAP is implementing the Hydropower Project on behalf of the three countries. The project upon completion will facilitate increased economic activities, private sector development, and investments in social infrastructure and services through improved access to electricity.

The project has two components: i) A hydroelectric power generation plant at the Rusumo Falls of -80MW capacity to be shared among the three countries, ii) Transmission Lines connecting the hydroelectric generation plant of Rusumo Falls to the national grids of Burundi, Rwanda and Tanzania, and the related project area development. Setting up of the Special Purpose Vehicle (SPV) the Rusumo Power Company Limited (RPCL) was completed. US$340 Million and US$128 Million was advanced to the countries as loan/grant from the World Bank and African Development Bank for the implementation of the Power Plant and Transmission Lines respectively.

Progress of Activities

The project is now at full implementation phase having completed Environmental Baseline Studies which included Fish Baseline Survey, Spray Zone Biodiversity Survey and Water Quality Baseline Survey. The 80 MW dam will be commissioned in 2022 and it will provide 26MW of electricity to the Government of Burundi among others.

Local Area Development Plan (LADP)

As part of bringing quick benefits to the community around the Rusumo project site, Local Area Development Plan (LADP) a benefit-sharing program worth USD 30 Million dollars across three countries, was designed to improve community livelihoods and promote socially sustainable outcomes of the riparian citizens of the affected districts. In Burundi, NELSAP has allocated USD 10 million to the people through Busoni Commune (Kirundo Province) and Giteranyi Commune (Muyinga Province) to implement different community development projects (agriculture (crops and livestock) through irrigation, construction of a new health centre, and roads rehabilitation.

Both Giteranyi and Busoni Communes will implement rehabilitation and extension of water supply systems, construct health centers, youth training center, hangars of storage and block office as well as livestock intensification. In addition, the construction activities at Rusumo has creating 100 job opportunities to Burundians.
BURUNDI (BUJUMBURA) - D.R CONGO (KAMANYOLA) POWER INTERCONNECTION

The Burundi (Bujumbura) - Democratic Republic of Congo (Kamanyola) power interconnection is a 78.8 km power transmission line whose construction is 20% completed. The line is funded by the European Union to the tune of 15 million Euros and implemented by the AfDB and supervised by NELSAP. It includes two sub stations, Kamanyola substation and Bujumbura substation. Upon completion the project will integrate the electricity grids of the great lakes countries, EGL (Burundi, DRC and Rwanda) as well as the regional electricity grid for the five NEL countries.

Some of the expected results of this project are; Increased access to electricity from a regional average of 9% in 2010 to 13% in 2015 and to 19% in 2020 and reduced electricity costs from a regional average of 20 cents USD/KWh in 2008 to 8 cents USD/KWh in 2020 by improving overall production and operational efficiencies of the integrated system. The project is also expected to promote regional cooperation and integration promoting power development planning from a regional perspective.

Partners involved in this project are the Burundi national power utility the Régie de Production et de Distribution d’Eau et d’Electricité (REGIDESCO) the Electricity of the Great Lakes (EGL) and NELSAP.

THE KIGOMA (RWANDA)-GITEGA (BURUNDI) TRANSMISSION LINE

Procurement for Rwanda scope was completed contract signed and design work commenced. Mobilization of funds with the African Development Bank, AfDB is in progress.

NELSAP WILL SUPERVISE CONSTRUCTION OF POWER SUBSTATIONS IN NGOZI AND GITEGA (BURUNDI) FOR EURO 6.79M AFDB FUNDING.

NEL-IP PROJECTS IN THE PIPELINE WITH DIRECT BENEFITS TO BUJUMBURA

NELSAP has consolidated the advances made in independently prepared investment projects from Member Countries into a single, feasible Nile Equatorial Lakes Investment Program (NEL-IP).

The NEL-IP provides a framework for shared water and other resources, and more importantly, a suite of well-structured, -designed, purposeful, integrated and bankable projects for development partners and investors to consider.

Out of the total list of 17 projects Burundi got three projects, these are; 1. The Akanyaru MPP Water Resources Development Project. 2. Integrated Management of Transboundary Water Resources of Lakes Rweru, Cyohoha and the Akanyaru Marshlands (GIRET)(WM) and 3. Kagera Basin-wide Integrated Watershed Program (WM)

1. AKANYARU WATER RESOURCES DEVELOPMENT (MPP)

Akanyaru MPP (Burundi/Rwanda) consists of a 334 Mm3 dam, 12,400 ha of irrigated land, 14.5 MW electricity, potable water supply for 683,585 people and restoration of 1700km2 degraded watersheds. It is anticipated that the project would improve the living conditions and incomes of rural populations in the provinces of Kirundo, Ngozi and Kayanza in Burundi; and Huye and Gisagara Districts in Rwanda; and surrounding areas. Expected direct and indirect impacts include the creation of employment opportunities, water for domestic consumption, hydropower production, agricultural production, and livestock production.

The outcomes of these benefits will enhance household incomes and livelihoods, environmental protection / watershed management, agricultural production to match the ever-increasing human populations and market demand at regional level thereby improving both national and regional food & energy security, social economic development and ultimately poverty reduction.

The Akanyaru project was originally identified in 2012 by the NELSAP-CU together with the Government of Burundi and Rwanda. The project is a high national priority for both countries.

Full feasibility, detailed design and preparation of tender documents, as well as independent ESIA and RAP studies are planned to be undertaken through the NEPAD-IPPF, financed by the African Development Bank (AfDB) after the countries sign a joint MoU for the studies preparation and implementation.

NEPAD-IPPF also requested the countries to choose the option of doing the feasibility, ESIA and RAP studies first because the available funds are enough to cover this activity and later seek for more funds to undertake the detailed designs and tender documents preparation. The estimated cost of full project implementation from the pre-feasibility study is USD 191m, however this number should be confirmed during the project design phase.
INTEGRATED MANAGEMENT OF TRANSBOUNDARY WATER RESOURCES OF LAKES RWERU, CYOHOHA AND THE AKANYARU MARSHLANDS (GIRET)(WM)

The project area covers the Akanyaru marshland, the Lakes Cyohoha and Rweru and their watersheds shared by Rwanda and Burundi, and is located in the Akanyaru sub-basin and the downstream Nyabarongo sub-basin, both being part of the Kagera sub-basin shared by Rwanda, Burundi, Uganda and Tanzania. The project area has experienced a steady decline in the level of ecosystem services from being the food basket of Rwanda and Burundi in the 1960s with widespread forest area and plenty of rainfall to its current status of frequent drought, soil erosion and lack of grazing land. The objective of this project is to enhance:

• Co-ordination, sustainable development, management and utilization of the Lakes Cyohoha, Rweru, Akanyaru marshland environment, including water and fisheries resources production

• Contribute to poverty reduction and the reversal of environmental degradation in the Bugesera region shared by Rwanda and Burundi, especially in the Rweru and Cyohoha lakes basins and Akanyaru marshland.

The project aims to develop 4,200ha irrigated land; 2.5 million agroforestry trees; 765ha riverbank & lake shores protected; restocking of 2 lakes; support to 9 fishermen cooperatives; 1 million beneficiaries including 4,500 fisher folks and improved capacity of more than 6,500 farmers.

In more detail:
• Integrated Agriculture and Watershed Development and Management: Nearly 2,000 ha of irrigated land set up with hillside irrigation techniques and effective marshland management, more than 6,500 farmers with improved capacities on improved seeds, dairy cows and post-harvest infrastructures

• Watershed management: Mechanisms and capacities for joint water monitoring and management in place and operational, Protection of 765 ha of lakeshores and Akanyaru riverbanks with fodder grass, agroforestry, fruit, bamboo and indigenous tree species. Conservation of aquatic ecosystems and biodiversity through restoration of lakes shores, spawning sites and catchments and joint mechanisms for fishery and water resources monitoring and management.

• Fisheries Resources Development and Management: Restock of the 2 lakes with 1,000,000 tilapia fingerlings, support construction of fishery infrastructures and strengthen capacities of 9 fishermen cooperatives and key stakeholders for sustainable fishery development. Regional Integration and peace building through harmonized policies frameworks.

• Capacity building and development: Capacity building for alternative livelihood and by commodity chain of 4,500 beneficiaries from fishery, farmers and agriculture cooperatives, 50% being women. Leading to poverty reduction and improved food security. This component also specifically addresses knowledge generation and dissemination systems to monitor specific risks and threats, notable climate change and variability.

The project is ready for implementation and requires funding of USD 95m over 4 years implementation to enable the project to become financially self-sufficient.
### Other Projects in the Pipeline with Direct Benefits to Burundi

<table>
<thead>
<tr>
<th>Name and Location</th>
<th>Status</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ruviryonza Multipurpose Water Resources Development Project (14,000 Ha) in Gitega Province</td>
<td>Feasibility and ESIA studies ongoing next is detailed design and project implementation</td>
<td>Investment USD 80 million</td>
</tr>
<tr>
<td>Upper Ruvubu Multipurpose Water Resources Development Project (8,000 Ha irrigation, 3.6 MW, water supply to 154,000 people) in Ngozi, Gitega and Kayanza Provinces</td>
<td>Prefeasibility done next is Feasibility, ESIA &amp; RAP, detailed design and project implementation</td>
<td>Pre-investment USD 2.0 mln, investment USD 70 million</td>
</tr>
<tr>
<td>Nyamuswaga Valley Irrigation &amp; Water Supply Deployment Project (3,644 Ha irrigation, water supply) in Ngozi District</td>
<td>Prefeasibility done next is Feasibility, ESIA &amp; RAP, Detailed design and Project Implementation</td>
<td>Pre-investment USD 2.0 mln, investment USD 19 million</td>
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### Status of other Interconnection of Electric Grids of NEL Countries Projects - Focus on works in Burundi

- **Burundi - DR. Congo** interconnection (Bujumbura-Kamanyola) is at 20%.
- **Burundi - Rwanda (Border-Ng疣-Gitega)**- power interconnection lines: New funding being sourced.
- **Burundi - Rwanda (Kigoma - Butare Border)**- power interconnection lines: Contractor started June 2018, engineering on-going, and construction has started at Butare substation.

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**ONE RIVER ONE PEOPLE ONE VISION**

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