In a remarkable turn-around, construction at the 80MW Regional Rusumo Falls Hydroelectric Project, which is managed by NELSAP-CU on behalf of the governments of Burundi, Rwanda and Tanzania, inched closer to completion, progressing to 93 % in May 2022 from 83% in December 2021. While visiting the project on 22nd April 2022, the Rwanda minister for Infrastructure Hon. Dr. Ernest Nsabimana expressed his appreciation of the progress of construction and underscored importance of the project to the three countries.

Earlier, in his progress update, the new Project Manager Eng. Alloyce Oduor, who took over from Eng. Darren Protulipac on 20th December 2021 stated, “Works at the dam, spillway and power intake areas are progressing well and the spillway gate will be commissioned soon. At the power house, the concrete placement works is complete around the penstocks and at entrance of the powerhouse and around water passage steel.”

From Artisanal Fishing to Bee-Keeping: LEAF II Changing Life of a Youth Group for People with Disability

“Last week we harvested three kilograms of pure honey and sold each 250 grams bottle for UGX 20,000 (USD 5.5),” John Baptiste said when a team from NELSAP visited his group’s apiary project end of March 2022. The group is called Choir Youth Group for people with disability and is based in Dei Sub-County, Pakwach District on the shores of Lake Albert, Uganda. John Baptiste is the group secretary.

“We have 31 bee hives, all presently with colonies of bees. From each hive, we will harvest 18 kilograms of honey,” John explains. Choir Youth Group is... continued p.2
Eng. Oduor further explained that one of the most important works, Headrace Tunnel (HRT), which is a 700 metre long underground tunnel that channels water from the river into the power house, has been fully excavated and works to provide it with complete concrete lining was almost complete, with only 42 metres remaining as of April 2022 and this was to be concluded by June 2022.

Eng. Oduor said that work on the three spillway gates are complete and water is currently freely flowing through the open spillway gates and through the hollow sill dyke. He added that the civil contractor was preparing to handover the switchyard control room building to the electro-mechanical contractor for key installations to be done. The electro-mechanical contractor, on the other hand, was installing the turbines and main generator equipment as well as powerhouse support structures and equipment.

“Civil works were 95% complete by May 2022. NELSAP is following up implementation of mechanical and electrical work which were 90% complete by May 2022.”

The Governments of Burundi, Rwanda and Tanzania agreed to build a joint power development project and established the Rusumo Power Company Limited (RPCL). The primary objective of RPCL was constructing the 80MW Regional Rusumo Falls Hydroelectric Project on the Kagera River at Rusumo border between Rwanda and Tanzania. Energy from it will be shared equitably among the three countries.

The Rusumo Power Company, RPCL delegated and authorized the Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU) to implement the 80MW Regional Rusumo Falls Hydroelectric Project (RRFHP) with USD 340 million funding from the World Bank for its construction, including implementation of Local Area Development projects (LADP). The African Development Bank (AfDB) provided USD 120 million for the Rusumo substation and transmission lines to evacuate power to the grids of the three countries.

NELSAP presently oversees all aspects of this construction and has a fully-fledged Project Implementation Unit on site to manage day to day operations. NELSAP and RPCL report to project Council of Ministers (CoM) composed of ministers responsible for energy affairs of the three countries.
Update of Feasibility of Interconnection of Power Grids of D.R Congo - Uganda Begins, will be Completed by December 2022

At the end of February 2022, NELSAP signed contracts with the two firms that are presently conducting the update of feasibility study, detailed design and preparation of tender documents and environmental and social impact assessment studies and resettlement action plan for the 396km D.R Congo – Uganda Power Interconnection. This transmission line will run from Nkenda in Uganda to Beni, Bunia and Butembo in Eastern D.R Congo. The two firms have commenced work and submitted their Inception Report on the first week of May 2022. This feasibility is expected to be completed in December 2022.

“In 2013, the Governments of D.R Congo and Uganda under the auspices of NELSAP carried out two studies which proved that this power interconnection is feasible at a voltage level of 220kV, but funding for its development was not forthcoming. However, the African Development Bank (AfDB) and European Union, together with other development partners have now indicated their interest in financing its construction,” Explained Eng. Alloce Oduor, the NELSAP Power Program Officer.

“Due to the time lapse, a lot of developments have taken place in the region leading to rapidly growing electricity demand and need to avail transmission lines in order to stimulate power generation capacity and increase security and quality of power supply. As a result, the two governments have found it necessary to validate the studies by conducting updated studies,” Eng. Oduor added.

Background to the Project

The proposed D.R Congo – Uganda power interconnection consists of construction of a High voltage transmission line and associated substations at Beni, Bunia and Butembo in the North Eastern region of D.R Congo and upgrade of the Nkenda substation in Kasese, in the western region of Uganda. The total distance of the line is estimated at 396 km. The two studies will be conducted in parallel and in a coordinated manner, with the two consultancy firms exchanging data.

This project is part of the NELSAP regional power grid interconnection, now under implementation, and covers interconnection of Kenya-Uganda-Rwanda-Burundi-DR Congo (Eastern part) as well as Kenya-Tanzania-Zambia that will link the Eastern African Power pool to Southern Africa Power Pool.

Power Demand and Supply in North Eastern D.R Congo

Despite having rich renewable energy potential, D.R Congo has substantial unmet electricity demand. Only 9% of its overall population have access to electricity. 19% of D.R Congo’s urban population has electricity and only 2% of its rural population is connected to the electricity grid. Owing to D.R Congo’s size and economic conditions, the North Eastern D.R Congo, under consideration for this interconnection, is isolated from the South Eastern region electric grid as well as from the national grid that runs from the Inga Network, which is over 2,000 kilometres away and hence connection to it is not achievable in the foreseeable future. Goma, the capital of North Kivu Province, is 376 km from Bunia, the capital of Ituri Province. The main towns in this North Eastern region are currently supplied by small diesel generators which are expensive relative to the power supply from the respective national grids. Therefore, supplying the towns of Beni, Bunia and Butembo from Uganda side would provide cheaper, reliable, and secure supply, and would also interconnect the towns to the network around Lake Kivu.

The feasibility study completed in 2013 forecasted demand in the Eastern Region of DRC at 63MW in 2020, 100MW in 2025 and 133MW in 2030. Uganda on the other hand targets power generation capacity to increase to 41,738 MW by 2040 (Vision 2040) with percentage population with access to electricity rising from 14% in 2013 to 80% by 2040.
From Artisanal Fishing to Bee-Keeping: LEAF II Changing Life of a Youth Group for People with Disability...

composed of 29 people with various disabilities. Ten of its members are female. The group is engaging in apiculture through the support of LEAF II Project.

Mr. Mucwa Maurice, Dei Sub-County Chief explained that because fish catch on Lake Albert has been on the decline, he was very pleased that LEAF II decided to support groups in the Sub-County to engage in various alternative livelihoods ventures to supplement their income from fishing. He opined that this would reduce pressure on the lake.

"During the needs assessment training, this group wanted to engage in cattle rearing as their first choice, however when we conducted market analysis and examined their capacity, we proposed to them apiculture, which they had listed as their second choice,” explains Mr. Geoffrey Kayongo, a Social Development Expert from the Ministry of Water and Environment, Uganda. Mr. Geoffrey Kayongo is responsible for providing technical support to groups receiving alternative livelihoods support from LEAF II Project in the district. He says that before they began to support this group, it already had three bee hives of their own. However, the hives the group had were not of good quality and the group lacked adequate skills and equipment to maximize income from their apiculture venture and so improving on what the group were already familiar with and had some interest in, was the best available option.

Through the LEAF II Project, the group was provided with 27 longstroth hives, 8 sets of protective safety gears comprising of protective veils, bee helmets, bee suits, leather gloves and gum boots, cans for packaging honey, solar wax melters, queen separators, honey collection tins, bee attractors, and hive tools (knives, chisels and smokers).

"We have 31 hives all with bees and from each, we will harvest 18 kgs of honey to sell to a national honey marketing company, sell at Pakwach town and to people from DRC border which is a km away.”

The group says market for their honey has been great so far. They were linked with a national honey marketing company that has apiaries across Uganda and as a result have ready market for their honey. They have the alternative to sell surplus honey at the nearby Pakwach town as well as to customers from D.R Congo, whose border is less than a kilometer away.

Mr. John Baptiste, says they formed the group two years ago (in 2019) initially as a church choir. They decided to engage in income generating activities to support their members, many of whom could not do regular activities due to their disabilities. Through LEAF II they were trained on basics of bee keeping; from attracting bees into new hives, harvesting and packaging, handling wax and making by products like candles out of bees wax.

“Our honey tastes very sweet because of the natural environment around us,” says John. He adds that they want to purchase smaller packaging tins to enable them attract even people at the lowest end of the market. They also hope to purchase good quality and approved fishing gears to enable them return to their main source of livelihood.

“I am very impressed with this group because they are doing something unique despite their physical challenges and because of that they have become an inspiration to others,” said Mr. Lawrence Alithum, the elected Sub-county Council (LC III) Chairperson. The challenge they currently face is that they lack a permanent office and their hives are also not fenced. The hives are in the compound of one of their members who volunteered to freely lease his land to the group.

The Multinational Lakes Edward and Albert Integrated Fisheries and Water Resources (LEAF II) is a project of NELSAP/NBI that is funded by the African Development Bank (AfDB) and the Global Environment Facility (GEF) and implemented in collaboration with the Governments of the D.R Congo and Uganda. The LEAF II project ended on 31st March 2022.
End of March 2022, at 8:00am, a team from NELSAP visited Dei Landing site in Pakwach District, on the shared Lake Albert, barely a kilometre from the D.R Congo border. While attention of most people in the area was focused on various fish landing spots waiting for overnight fishers to dock with their catch, a group of women and youth had their attention elsewhere... on their goats. These groups received support from the LEAF II Project to engage in goat rearing as an alternative livelihoods venture to supplement their income from fishing and reduce pressure on the lake.

Wabed Ayika Women Group

One such group is called Wabed Ayika. The group comprises 20 people, 15 of whom are female. It was formed five years ago (in 2017) initially as savings and self-help group. They contribute 15,000 UGX (USD 4.2) per person per week and use these to provide soft loans to their members to boost their businesses and for emergencies.

Alice Awanga the chairlady of the group explains: “In this shed we have 24 goats that LEAF II Project gave us. Half of them belong to my group while the rest belong to another group called Wagen Yesu Women Group. Whereas all our members are fishers or engage in fish trade, we chose goat rearing because we felt goats are easier to raise, they multiply faster and that means we can get returns in a shorter time. Also market for goats is good. A full-grown goat presently fetches between 150,000 UGX (USD 42) to 180,000 UGX (USD 50.5),” she says.

She added that the goats are group owned and regularly, members are assigned, on a rotational basis, the responsibility of looking after them. The group hires a motorcycle once a day at 1,000 UGX (USD 0.28) to fetch feed for them. This money comes from member contributions. Their plan is that in two years’ time, after the goats multiply, they will give each member a goat to rear individually and will also sell some goats and use the money to sort out their most pressing needs, especially paying school fees for their children and building residential houses.

Apart from fishing and goat rearing, the women are engaging in improved cassava crop production. With support from a different agency, they recently received 10 one-hundred kilogram size sacks of cassava cuttings to plant, since cassava does well in the area despite it being dry.

“LEAF II project gave us 24 goats. Whereas we are all fishers or fish traders, we chose goats because they are easier to raise, multiply faster, they give quicker returns and their market is good.”

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Goat Rearing Projects to Supplement Income from Fishing on Lake Albert

**Angal Youth Group**

A few hundred metres away, another group called Angal Youth Group, composed of young people, also received similar help from the LEAF II Project to rear goats. Their chairperson Isingoma Bangamoyo explains:

“We are group of 25 young people, 21 of us are fishers while four are shopkeepers. Some time, back we used to do a lot of fishing, however because the governments of both DRC and Uganda have been enforcing strict fishing regulations on Lake Albert, it became difficult since we don’t have approved fishing gears, so we decided to diversify from fishing. We were thus very happy when the LEAF II Project gave us seven improved goats to rear. Six of them are female (does) and one is male (a buck).”

Isingoma, the group chair explained that LEAF II trained them on how to tend to the goats and the type of feed and medication to regularly administer to them. He says the group has employed one of their members as a herder and they pay him 25,000 UGX (USD 7) a month. The goats graze in open fields half the day while the herder also cuts and brings feed to them.

“After our goats have multiplied, we plan to sell some and buy a big engine boat to make our fishing more profitable, however on the side we will continue to rear goats and engage in other income generating ventures,” Isingoma says.

The group previously raised funds and bought 147 plastic chairs and a tent that they hire out to people holding meetings. They also bought a new motorcycle for transport that people can hire, so goat rearing will be their fourth source of income.

The group says their main challenge is security of their goats. They fear that because the goat shed is not fenced, someone might steal them. They presently borrow a solar panel and battery from one of their members to light the goat shed and its compound to deter thieves. With time however, they hope to fence the shed with chain-link wires.

The Multinational Lakes Edward and Albert Integrated Fisheries and Water Resources (LEAF II) is a project of NELSAP/NBI that is funded by the African Development Bank (AfDB) and the Global Environment Facility (GEF) and is implemented in collaboration with the Governments of the D.R Congo and Uganda. LEAF II projected ended on 31st March 2022.
On 18th March 2022, Burundi Minister of Hydraulic, Energy and Mines, Hon. Eng. Uwizeye Ibrahim visited projects established to improve livelihoods of communities living around the 80MW Regional Rusumo Falls Hydroelectric Project. Known as Local Area Development Projects (LADP), these are projects under a benefit sharing program between the Rusumo power project and adjacent communities. Hon. Eng. Uwizeye Ibrahim visited LADP sub-projects that are located on the Burundi side, to ensure that they are operational and communities are benefiting from them. During his mission, he discussed with the project implementation team how to address various operational challenges. In Busoni commune, LADP supported rehabilitation and extension of 39 km of water supply system, construction and equipment of Murore youth centre and Rugando health centre and construction of hangars in Runyinya area. In Giteranyi, LADP supported rehabilitation and extension of 30 km water supply system, construction of a youth centre in Ruozo, construction and equipment of a health centre in Bugoma area, construction of Giteranyi Commune head office as well as hangars in Kinanira area.

During his visit, Hon. Eng. Uwizeye Ibrahim was accompanied by Director General of AHAMR, the agency responsible for water supply and sanitation in Burundi and the Rusumo Power Company (RPCL) Board of Directors from Burundi. Also present were LADP project steering committee members, Muyinga leadership as well as NELSAP representatives. The visiting officials were received at Muyinga Province Office by the Chief of Cabinet of the Governor, Ms. Ndaruhekere Denise on behalf of Muyinga Governor and the Permanent Executive Secretary of Giteranyi Commune, Mr. Mushengezi Venant, representing Commune Administrator of Giteranyi. The visitors took stock of status of water sources in Gihuzu, Rubenga and Nyarutongo where construction of water sources are complete but repair of some parts of the water pumping stations are still ongoing forcing surrounding communities to use river water.

After the visit, the Minister expressed his appreciation for all the endeavors of NELSAP Rusumo project, which is working in collaboration with local administration, to bring socio economic development to communities. He however urged all LADP actors to closely follow up pending works to ensure that water supply systems work efficiently and properly reach all water serving points for communities to use clean water. He also asked them to ensure that the projects are functional as soon as possible and serve the people. Later that day, during his interview with Burundi national broadcaster, Radio Television National du Burundi, Hon. Minister stated that Busoni and Giteranyi communities are set to greatly benefit from LADP projects. “These LADPs are expected to enhance livelihoods of Rusumo communities, increase access to clean water and hygiene, establish a healthier environment, and set up appropriate systems for an empowered and educated youth generation,” Hon. Eng. Uwizeye said.

The LADPs are coordinated by a fully-fledged unit headed by a coordinator in close collaboration with leadership of respective communes.
Ethiopia Water Minister Commends NELSAP for Establishing a Dam Safety Project to Support Nile Basin Countries

The Ethiopia Minister for Water and Energy Hon. Dr. Eng. Habtamu Itefa has commended NELSAP for establishing a Dam Safety project for the Nile Basin Countries saying the project will provide much needed support to the countries. The Hon. Minister noted that whereas dams are a central component of water infrastructure, safety issues must be addressed from their planning, construction to operations phases.

The Hon Minister was speaking to dam safety experts and high level government officials from the Nile Basin Countries in Addis Ababa, Ethiopia during the first Regional Dam Safety workshop held in the first week on May 2022. The dam safety project is funded by the World Bank (CIWA Trust) under the Nile Cooperation for Climate Resilience (NCCR) program.

In his opening address, Hon. Dr. Eng Itefa observed that whereas most Nile Basin countries do not have minerals or petroleum resources, the region is blessed with abundant surface water which can be sufficient for all basin countries if properly managed.

He noted that Ethiopia, like much of the basin, is generally water deficient, due to uneven distribution of water resources in different parts of the country, and water storage, principally through dams is essential.

“Dams can be a blessing, can provide clean energy, water for irrigation, domestic and livestock use and can control floods, however if not well planned and managed, can be a curse.”

“Properly planned dams can be a blessing, can provide people with clean energy, and water for domestic and livestock use and for irrigation, and can control floods. However if not well planned and managed can be a curse to the people,” Hon. Dr. Eng Itefa said.

He added that dam safety requires commitment at the highest level of decision making so that planning, design, construction and operation of dams are technically and socially acceptable to make them safe. He observed that cooperation and sharing of information in dam management, especially in areas with cascade of dams is essential to minimize risk of dam failures.

Speaking at the same event, the NELSAP Regional Coordinator Dr. Eng. Isaac Alukwe explained, “The specific objective of the Dam Safety project is to increase technical capacity on dam safety in the Nile Basin region, reduce the likelihood of dam failures, reduce the potential consequences of dam failures, promote public awareness, and establish and strengthen national dam safety units in each Nile Basin country.”

The meeting brought together high level government officials and experts responsible for dam safety management at development and operational phases from across the Nile Basin countries.

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