Tanzania Investment Benefits from the Nile Basin Cooperation

ONGOING WORK AT THE 80MW REGIONAL RUSUMO FALLS HYDROELECTRIC PROJECT

ENERGY MINISTERS OF BURUNDI, RWANDA AND TANZANIA VISIT THE REGIONAL RUSUMO FALLS HYDROELECTRIC PROJECT
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 million 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 the United Republic of Tanzania since 2004 as elaborated below.
Completed Projects With Direct Benefits to Tanzania

A. Regional Agricultural Trade and Productivity Project (RATP 2009–2012) USD7.0 Million

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, livestock trade in the Nile Basin region.
(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 consultations.

B. Borenga Multipurpose Water Resources Development Project

Completed feasibility, Environmental Social Impact Assessment (ESIA) and Resettlement Action Plan (RAP) studies for Borenga project in 2014, financed by the Swedish Government. The study reports are enabling the Government of Tanzania to attract investment financing for the bankable project. The Borenga 15.8MCM Dam Capacity with 22M of height, once completed will serve about 30 villages (13 villages with water for irrigation (8,340ha) and 17 villages with water supply for domestic and livestock use) whereby 500,000 people will benefit from the dam. The designed infrastructure has the capacity to generate 2.85MW electricity.

C. Construction of Bisarwi Smallholder Irrigation Scheme

NELSAP-CU in collaboration with the government of Tanzania constructed a 50,000m3 capacity storage earth dam in Bisarwi village, Tarime District, Mara river basin. The dam provides water for domestic and livestock uses for Bisarwi village and 500ha irrigation area downstream of the dam. The project was implemented through small-scale investment projects financed by Sida at USD200,000 cost whereby the government of Tanzania contributed TZS.70Million.
D. Prefeasibility studies for the Kagera River Basin Management catchment

Completed pre-feasibility studies for the Kagera river basin catchment at a cost of USD251.5 million. The study revealed existence of 11,681 ha potential for irrigation that can benefit 20,000 people when exploited.

This information is enabling the Government of Tanzania in planning and advancing irrigation projects for food production in the Kagera catchment area.

E. Pre-feasibility study for the Mara Valley Irrigation Project

Completed a prefeasibility study in the River Mara Valley and identified 6,030 ha land for irrigation potential to benefit 10,000 people. The ongoing feasibility study has estimated the investment cost of USD229 Million, which will be in phases for the period of 12 year of implementation.

F. Pre-feasibility Study for Bugwema Irrigation Project

Conducted a prefeasibility study for Bugwema irrigation project and identified 2,030 ha land for irrigation to benefit 4,530 people. The study estimated that if the irrigation site is to be implemented, USD14.8 million would be required as investment.

G. Sub-Catchment Management plans in Mara and Kagera river Basins

NELSAP-CU prepared the Sub-Catchments Management Plans for Tobora and Somoche in Tanzania under financing of the Swedish Government. The plan once implemented will benefit about 160,000 people in the two countries.

H. Power Interconnection: Iringa - Mbeya Transmission Line

NELSAP-CU identified the Iringa - Mbeya as a weak link in the Zambia - Tanzania - Kenya (ZTK) interconnection being at 220kV. A feasibility study was conducted for this reinforcement to 400 kV that was completed in October 2012 at a cost of USD3.8 Million under the NBTF World Bank. The study reports were shared with the Government of Tanzania and mobilisation of funding for implementation is underway.

I. Power Interconnection: Kenya-Tanzania transmission, (Isinya/Nairobi-Singida) is 400kV of 257 km

The project was recommended by East Africa Power System Master Plan 2005 and by NELSAP-CU Strategic/Sectorial, Social and Environmental Assessment (SSEA) 2017 of Power Development option in the Nile Equatorial Lakes Region. Following the SEA, NELSAP-CU mobilised NOK24 Million from the Government of Norway and conducted the feasibility study, detailed design & tender documents preparation, which completed in 2012.

The interconnection was found bankable as recommended by the feasibility report. Kenya and Tanzania secured funding for the project, which is now under physical implementation.
in both countries. Upon completion of the project, not only Tanzania will trade power with the rest of the SADC member countries but also the East African Power Pool (EAPP) will take advantage of the existing power interconnection to trade with the Southern Africa Power Pool (SAPP). This will improve the welfare of the population not only in Tanzania but also in the region.

**J. Installation of Hydro-meteorological Equipment**

NELSAP-CU undertook assessment and design of hydrometric network in the Mara Basin. A total amount of USD238,368 was spent to procure and install equipment in the entire basin. In Tanzania four (4) Automatic Weather Stations have been installed at Buhemba Agriculture Centre, Mugumu, Kuruya and Nyabusara Primary Schools. Evaporation Pans were also installed in the same stations were AWS have been installed.

NELSAP-CU also installed four (4) Automatic Water Level Recorders in Mara river at Kirumi bridge, Mara mine, Nyansurura bridge and Kogatende. Five (5) standard rain gauge tipping bucket were also installed.

Through Kagera and Mara RBM Projects, 24 hydromet stations were installed in Tanzania as follows: i) 12 Evaporation Pans and Automatic Weather Stations; iii) Six (6) Standard Rain Gauges; and iv) 6 Lake water level recorder stations, which enhance the water resources monitoring in the basin. The stations augment the existing network stations, which were installed by the Ministry of Water and Irrigation.
Ongoing Projects with Direct Benefits to Tanzania

A. Preparation of Water Resources Multipurpose Project: Mara Valley and Ngono Project
NELSAP-CU completed the pre-feasibility studies for Mara and Ngono Multi-purpose projects. Now undertaking detailed feasibility, ESIA/RAP studies for Mara Valley & Ngono projects expected to be completed in April 2017. 20,000 people will benefit direct from the Ngono infrastructure while 10,000 people will benefit from the Mara Valley site, once developed (getting water supply for domestic and livestock use), and water for irrigation (6,340ha). The expected Borenga Dam, will supply water to the Mara Valley villagers: about 13 villages will be served with water for irrigation, 17 villages with water supply for domestic and livestock use. The Ngono project will command 13,630ha covering 21 villages.

B. Power Interconnection: Tanzania – Zambia Studies
400kV Transmission Line
Aimed at interconnecting the EAPP and SAPP, NELSAP-CU identified the transmission potential, whereby funds were mobilized to support the required study. The interconnector will have a transmission line running from Mbeya (Tanzania) to Kabwe (Zambia).

The studies (feasibility, tender documents preparation, detailed design and ESIA/RAP) are ongoing and expected to complete in December 2017. The current project cost is NOK18.612Million and EUR2.26million from Norway Government and KfW respectively. The expected benefits from the interconnector is the power trade between EAPP and SAPP whereby Citizens in Tanzania will also benefit from reliable electricity due to facilitated power trade.
C. Regional Rusumo Falls Hydroelectric Project (RRFHP)
The Regional Rusumo Falls Hydroelectric Project, under implementation with an installed capacity of 80 MW (Run of River Scheme at 1320masl) shared equally among Burundi, Rwanda and Tanzania. The power generation infrastructure will be located at Rusumo Falls at the border of Tanzania and Rwanda. The transmission lines will extend from the power generation plant to Gitega in Burundi, Kigali in Rwanda, and Nyakanazi in Tanzania. The project will develop renewable hydropower as part of a broader program to support sustainable management of the Kagera River Basin and promote growth and poverty reduction.

The project has three components: i) A hydropower generation plant at the Rusumo Falls of 80MW capacity to be shared among the three countries, ii) Transmission lines connecting the hydropower generation plant at Rusumo Falls to the national grids of Burundi, Rwanda and Tanzania, and the related project area development and iii) A jointly owned utility/institutional mechanism for the co-management of the power generation plant and transmission lines to national utilities.

The setting up of the Special Purpose Vehicle (SPV) the Rusumo Power Company Limited (RPCL) is complete. US$340Million and US$128Million have been advanced to the countries as loan/grant from the World Bank and African Development Bank for the implementation of the Regional Rusumo Falls Hydroelectric Project and the power transmission lines respectively, which commenced in 2014.

NELSAP-CU has moved the project to implementation phase. Completed project preparatory activities include Environmental Baseline Studies specifically Fish Baseline Survey, Spray zone biodiversity survey and water quality baseline study. Compensation of Persons Affected by the Project, PAPS has been completed on both sides of Rwanda and Tanzania. 60 households and 1 commercial group in Rwanda and 108 households and 3 commercial groups in Tanzania have been compensated. A total USD 3.1 million was paid out to the PAPs in the two Districts Ngara in Tanzania and Kirehe in Rwanda. Civil works/supply and installation of hydro-mechanical and electro-mechanical equipment is ongoing from 2016. The 80 MW dam will be commissioned in 2020 and it will provide 26MW of electricity to the Government of Tanzania among others. In addition, the construction activities are creating job opportunities to about Livelihood Restoration Program (LRP)

Implementation of the Livelihood Restoration Program (LRP) started in February 2017 and is on-going. $ 711,000 has been earmarked for program in Kirehe and Ngara districts of Rwanda and Tanzania.

Local Area Development Plan (LADP)
As part of bringing quick benefits to the community around the project site, NELSAP supports the Local Area Development Plan (LADP) as a benefit-sharing program worth 15 Million US Dollars designed to enhance regional economic and social development in the Rusumo area as an extended program related to the construction of the project. LADP is expected to improve community livelihoods and promote socially sustainable outcomes of the riparian citizens of the affected districts.

The Regional Rusumo Falls Hydroelectric Project has allocated USD 5million to the people through Ngoma and Kirehe Districts to implement different community development projects (agriculture (crops and livestock) through irrigation, construction of a new health centre, and roads rehabilitation.

Ngara District in Tanzania will increase livestock intensification and cattle milk production, increase honey production through bee keeping and increase agricultural production for key crops (cassava, sunflower, banana and horticulture). Ngara District will rehabilitate water systems in 4 villages (Mshikamano, Kasharazi, Kasulo and Rwakalemela), construction of water supply systems in Rusumo village and support to the Remela Vocational Training Center.
REGIONAL RUSUMO FALLS HYDROELECTRIC PROJECT (RRFHP)

HON PROF. SOSPETER MUHONGO THE MINISTER OF ENERGY-TANZANIA, HON. COME MANIRAKIZA, THE MINISTER OF ENERGY-BURUNDI AND HON. JAMES MUSONI THE MINISTER OF INFRASTRUCTURE-RWANDA, MEET THE PRESS AFTER RUSUMO FALLS HYDROELECTRIC PROJECT CONSTRUCTION LAUNCH

PROJECTS IN THE PIPELINE WITH DIRECT BENEFITS TO TANZANIA

<table>
<thead>
<tr>
<th>NAME AND LOCATION</th>
<th>STATUS</th>
<th>AMOUNT</th>
<th>FEASIBILITY STUDY LEVEL NEXT</th>
<th>PROJECT IMPLEMENTATION</th>
<th>PRE-INVESTMENT</th>
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</thead>
<tbody>
<tr>
<td>Nkongo Multipurpose Water Resources Development Project (12,000 Ha) in Bukoba &amp; Missenyi</td>
<td>Feasibility and ESIA studies ongoing next is detailed design and project implementation</td>
<td>Investment USD 80 million</td>
<td>Feasibility study level next is Design and implementation</td>
<td>Pre-investment USD 1.5 mn, investment USD 40.0 mn.</td>
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<td>Mara Valley Multipurpose Water Resources Development Project (9,000 Ha)</td>
<td>Feasibility and ESIA studies ongoing next is detailed design and project implementation</td>
<td>Investment USD 60 million</td>
<td>Feasibility and ESIA completed next is Detailed design and project Implementation</td>
<td>Pre-investment USD 1.5 mn, investment USD 42.6 mn.</td>
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<td>Mugodi Multipurpose Water Resources Development Project (3,000 Ha irrigation, 1.8 MW, water supply to 50,000 people) in Ngara District</td>
<td>Feasibility done next is Feasibility, ESIA &amp; RAP, Detailed design and project implementation</td>
<td>Pre-investment USD 1.5 mn, investment USD 44 mn.</td>
<td>Feasibility level next is Feasibility, ESIA, and detailed design</td>
<td>Pre-investment USD 0.5 mn, investment USD 36.0 mn.</td>
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<td>Buligi Valley (Ikaki) Irrigation &amp; Water Supply Deployment Project (5,000 Ha irrigation, water supply) in Muleba District</td>
<td>Feasibility done next is Feasibility, ESIA &amp; RAP, Detailed design and project implementation</td>
<td>Pre-investment USD 2.5 mn, investment USD 22 mn.</td>
<td>Feasibility level next is Feasibility, ESIA, and detailed design</td>
<td>Pre-investment USD 1.5 mn, investment USD 42.6 mn.</td>
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<tr>
<td>Omwibale Multipurpose Water Supply Project (Water Supply to 5,000 people, livestock watering , pilot irrigation approx. 500 Ha) in Karagwe District</td>
<td>Identification done next is Pre-Feasibility, ESIA &amp; RAP, n</td>
<td>Pre-investment USD 1.0 mn, investment USD 5 mn.</td>
<td>Feasibility level next is Feasibility, ESIA, and detailed design</td>
<td>Pre-investment USD 0.8 mn, investment USD 3.75 mn.</td>
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<td>Nhlanje irrigation project (1,600 ha; water supply) in Muleba District</td>
<td>Identification done next is Feasibility, ESIA, and detailed design</td>
<td>Pre-investment USD 1.0 mn, investment USD 8.0 mn.</td>
<td>Feasibility level next is Feasibility, ESIA, and detailed design</td>
<td>Pre-investment USD 0.8 mn, investment USD 2.7 mn.</td>
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<td>Muhonog valley irrigation project (1,500 ha; water supply) in Ngara District</td>
<td>Identification done next is Feasibility, ESIA, and detailed design</td>
<td>Pre-investment USD 1.0 mn, investment USD 8.0 mn.</td>
<td>Feasibility level next is Feasibility, ESIA, and detailed design</td>
<td>Pre-investment USD 0.8 mn, investment USD 2.4 mn.</td>
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<td>Kafunzo irrigation project (1,500 ha; water supply) in Missenyi District</td>
<td>Identification done next is Feasibility, ESIA, and detailed design</td>
<td>Pre-investment USD 1.0 mn, investment USD 8.0 mn.</td>
<td>Feasibility level next is Feasibility, ESIA, and detailed design</td>
<td>Pre-investment USD 0.75 mn, investment USD 2.5 mn.</td>
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<td>Implementation of Kapera Basin-wide Integrated Watershed Program in Burundi, Rwanda, Tanzania, and Uganda</td>
<td>Feasibility study level next is Design and implementation</td>
<td>Pre-investment USD 3.0 mn, investment USD 60.0 mn.</td>
<td>Feasibility level next is Feasibility, ESIA, and detailed design</td>
<td>Pre-investment USD 1.5 mn, investment USD 42.6 mn.</td>
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