"One Nile – One Family"

Mainstreaming Local Community Stakeholder Participation and Benefits in The NELSAP Sub Regional Hydro-Power and Interconnection Projects

A Consolidated Regional Report
Regional Advocacy Office

November 2011, Kigali - Rwanda

ACRONYMS

AfDB	African Development Bank
AIDS	Acquired Immunodeficiency Syndrome
CDAP	Community Development Action Plan
CEFAD	Centre de formation et d'appui au Développement Durable
CEPGL	Communauté Economique des Pays des Grands lacs
CIRGL	Conférence Internationale des Pays des grands Lacs
CPP	Chargé de pratique professionnelle
EGL	Energie des Grands Lacs
EIA	Environmental Impact Assessment
GoB	Government of Burundi
GoK	Government of Kenya
GoR	Government of Rwanda
GoT	Government of Tanzania
GoU	Government of Uganda
HPP	Hydro Power Project
IFC	International Finance Corporation
IFI	International Financial Institutions
IP	Interconnection Project
KNDF	Kenya Nile Discourse Foorum
LC	Local Council
MW	Megawatt
NBI	Nile Basin Initiative
NBD	Nile Basin Discourse
NELSAP	Nile Equatorial Lakes Subsidiary Action Program
PIC	project Implementation Committee
NEMA	National Environmental Management Authority
RAP	Resettlement Action Plan
RCDAP	Resettlement and Community Development Action Plan
RNDF	Rwanda Discourse Forum
RoW	Right-of-Way
RRFP	Regional Rusumo Falls Project
SEA	Social and Environmental Assessment
SPV	Special Purpose Vehicle
TNDF	Tanzania Nile Discourse Forum
UNDF	Uganda Nile Discourse Forum
WB	World Bank

Table of Contents

Executive Summary

The Nile Basin countries also counts some of the largest number of people relying on traditional solid fuels for energy generation (cooking and heating) in Africa; these sources carry substantial adverse effects on health and productivity. Sadly, the poorest segments of the population often pay the highest costs (in money, time, and health) for the worst-quality energy services. The lack of access to modern energy services is a major factor for the slow progress in poverty reduction and attainment of other millennium development goals (MDGs) in the basin.

As part of the response to some of these challenges, in the NEL sub-region, the Regional Rusumo Falls Hydro-Power Project (RRFP) was originally developed as a multipurpose project but has now officially been endorsed as a single purpose project. It represents an opportunity for Tanzania, Rwanda & Burundi to access power for development, in a region characterized by pockets of extreme poverty, huge and acute national power deficits and high population density in Rwanda and Burundi. Upon completion, project will have an installed capacity of 90MW. The construction will certainly lead to involuntary displacement of persons, have a huge impact on the environment and similarly, contribute to significant amounts of energy to Rwanda and Burundi among others. The interconnection projects on the other hand are a pool of several investment projects that are multinational in nature and consists of construction of 440, 220 and 110 KV transmission lines and Substations to interconnect the electric grids of the Nile Equatorial Lakes (NBI) countries of Burundi, Kenya, Democratic Republic of Congo(DRC), Rwanda and Uganda.

The Nile Basin Discourse engaged a team of national consultants to collect evidence to among others, strengthen the participation of local community stakeholders on the project in all the NEL countries. Specifically, the key tasks to be undertaken in this assignment will focused heavily on the ongoing power development projects in Rusumo as well as the interconnection projects. Specifically, the project seeked to find out among others;

The impact of the project on the livelihoods of the project affected population in the countries.

- The level of community participation and representation in the project implementation processes;
- Community impressions on the project given the long lead times involved in the projects.
- National compensation and resettlement policies/legal frameworks and livelihoods restoration envisaged by the project.
- What rural electrification processes were foreseen to benefit project affected populations. Local area development for the communities in the project areas.
- Identify points of actions that could enhance the success of the project.

The assessments involved the employment of several survey methodologies including extensive literature review –several project documents, project progress reports and literature related to the project were obtained from the consulting firms - SNC Lavalin, Fichtner-RSWI, as well as from the utility companies ie; Energy, Water and Sanitation Authority (EWSA), Rwanda; Uganda Electricity Transmission Co.Ltd (UETCL); REGIDESO(Burundi); Kenya Transmission Company Limited (KETRACO), TANESCO in Tanzania and SNEL in DRC, household field surveys, key informant interviews and focus group discussions among others,

At specific country levels, the current national assessments reveal that a number of gaps still exist in project implementation processes in the interconnection projects. Modalities for land acquisition and compensation including property valuation and resettlement have been determined unilaterally, local communities rarely get accurate and timely updates on project implementation status, women are losing out on property compensation in land for cash arrangements, grievance mechanisms are weak or not in place altogether and national governments are not keen to make provisions for adequate compensation to local communities.

The findings have considered proposals for a number of policy actions that include the following;

- Institutional Coordination;
- Public Participation;
- Information Sharing;
- Adequacy of the effectiveness of the public disclosure and grievance mechanism
- Vulnerable people support measures.
- Gender implications

Chapter 1:

Background and Introduction.

The Nile Basin member countries are home to almost 300 million inhabitants. But the Nile Basin countries like many African countries, are faced with many challenges in their quest to improve the welfare of their populations, one of which is the lack of access to affordable and reliable modern energy sources. It is estimated that only half of the urban population in sub-Saharan Africa has access to electricity; the ratio is only 8% in the rural area. In the Nile Basin, most countries with the exception of Egypt have less than 20% access levels. Moreover, even when modern energy is available, it is expensive and unreliable. If current trends continue, all the eight out of nine Nile Basin countries will not reach universal access to electricity by 2050.

The Nile Basin countries also counts some of the largest number of people relying on traditional solid fuels for energy generation (cooking and heating) in Africa; these sources carry substantial adverse effects on health and productivity. Sadly, the poorest segments of the population often pay the highest costs (in money, time, and health) for the worst-quality energy services. The lack of access to modern energy services is a major factor for the slow progress in poverty reduction and attainment of other millennium development goals (MDGs) in the basin.

For example, with the exception of Egypt which has a per-capita electricity consumption above 1800kWh/year, the estimated average per-capita electricity consumption for the remaining NBI countries is only 130kWh/year. This is just a quarter of the minimum required 500kWh/yr for a reasonable quality of life by UN standard. This low level of access persists in a region so well endowed with energy resources of all types: Hydro in DRC, Ethiopia and Sudan, Natural gas in Tanzania and Egypt, Oil in Uganda, Geothermal in Kenya and Rwanda, and besides, the region enjoys Wind and Sunshine 12 months every year. From current studies, the region is found to have a large inventory of potential hydropower options with production costs of less than US 3.0 cts/kWh; but of the more than 145,000MW identified potential, less than 3% has been exploited for energy production. The region is also characterized by a very disjointed transmission grid system and very low level of power exchange between countries.

In spite of the above, the GDP of NBI member countries has been growing at an average above 5%, and the power demand now standing at 30GW, is expected to double every ten years for the next 30 years. In fact, even with a conservative 7% annual electricity demand growth, the region will require to add 2,500MW of new generation every year for the next 5 years.

To address the basin's power needs, the Nile Basin Initiative has been implementing the Regional Power Trade Programme (RPTP) which aims to facilitate the development of an integrated regional power grid interconnecting all the member states of the NBI to support regional power trade and electricity exchanges. This program is implemented in through the RPT Project Office in Dare Es Salaam. Additional power programs are underway in NELSAP and at the ENTRO regional offices through the NELSAP and ENTRO Power programs.

The creation of a regional electricity market is expected to play a key role in furthering cooperation among the basin states and ensure that the hydro and non-hydro power resources are exploited in

a sustainable manner. Furthermore, embracing regional approach to trans-boundary power infrastructure projects and encouraging joint implementation of investment projects of regional dimension, the NBI, and the Eastern Africa region to a larger extent can deliver adequate, reliable and cost effective power to support the region's long-term socioeconomic development goals.

The Rusumo Falls Hydro Electric Power Project:

The Regional Rusumo Falls Hydro-Power Project (RRFP) was originally developed as a multipurpose project but has now officially been endorsed as a single purpose project. It represents an opportunity for Tanzania, Rwanda & Burundi to access power for development, in a region characterized by pockets of extreme poverty, huge and acute national power deficits and high population density in Rwanda and Burundi. Upon completion, project will have an installed capacity of 90MW. The construction will certainly lead to involuntary displacement of persons, have a huge impact on the environment and similarly, contribute to significant amounts of energy to Rwanda and Burundi among others.

The available electricity generation capacity in Rwanda by July 2009 was 69 MW. In Burundi electricity is generated almost exclusively through the 7 REGIDESO hydroelectric plants with a combined installed capacity of 30.6 MW (equivalent of 95% of the total capacity of 32.2MW among 27 existing hydro plants) with the current supply deficit currently varying between 12.9 MW during the wet season and 23.5 MW during the dry season. In Tanzania, the total installed generation capacity is 1219 MW, from which hydropower comprises 561 MW and thermal 658 MW. National electricity connectivity is about 14%. Completion of the Rusumo would therefore increase installed capacities of the three countries by 43%, 98% and 2% respectively.

The current phase of the project involves two key feasibility studies, the first being undertaken for the design and development of the Hydro Power Plant being undertaken by SN C Lavalin[1] at a cost of US$ 2,573,527 vide a contract signed on 28th October, 2010, with the contract being effective on 12th November, 2010 and due for completion due on 27th October, 2011. The feasibility studies for the Power transmission lines connecting the grids of Burundi, Rwanda and Tanzania are being undertaken by Fichtner GmbH & Co.KG[2] at a cost of Euros 357,144 through a contract signed on 17th June, 2011, effective July, 2011 and task due for completion on 31st October, 2011.

The following are the key developments of the project so far in respect of the Hydro Power Plant and transmission lines;

- Finalization of Feasibility Study for Hydro Power Generation Plant and related project areas development. This includes the detailed RAP & LADPs. The village survey has been completed and outcomes are due to be presented by SNC Lavalin. Indicative results have however been shared whose highlights are analysed in the next section of this report.

[1] Registerd in Canada, SNC-Lavalin International is a multinational firm with over 100years in existence and more than 25,000 employees in more than 100 countries. SNC-Lavalin International is an engineering consulting firm specialized in technically managing large-scale and complex projects in various environments all over the world.

[2] Established in 1922, The Fichtner Group with its subsidiaries and associated companies has a staff strength of more than 1800 worldwide comprising mainly engineers, economists and management consultants covering a wide variety of specialist fields. The company offers comprehensive and interdisciplinary consultancy supporters, especially in utilities infrastructure.

- Task Forces both at National and District levels including communities have also been set up and other stakeholders involved on project matters and presentation of village survey results in 3 countries.
- Preliminary Design Report for the Power Plant and associated works – interim report submitted.
- Feasibility Study and RAP for Transmission Lines are due for completion with the full study completed and Draft Tender Documents submitted. A detailed Resettlement Action Plan that includes village survey- in all 3 countries has been completed with the full study to be completed end October, 2011.

The Uganda – Kenya Transmission Line;

The 256 km, 220 kV Jinja (Uganda) - Lessos (Kenya) interconnection project was co-financed by JBIC/JICA (Uganda portion), the AfDB and the WB (Kenya portion). The total cost of the Project was estimated at US$ 140 million. In Kenya, The Government of Uganda through Nile Equatorial Lakes Subsidiary Action Program (NELSAP) received a loan from African Development Bank (AfDB) to finance the construction of the Uganda-Kenya 220 kV Interconnection comprising of 128 km of 220kv double circuit transmission line on steel lattice towers from Bujagali Hydro Power station Switchyard to the Kenya – Uganda frontier, and associated accessories. The project is being undertaken by the Uganda Electricity Transmission Company Limited, which is the implementing Agency for the Government.

In Kenya, The Government of Kenya through Nile Equatorial Lakes Subsidiary Action Program (NELSAP) received a loan from African Development Bank (AfDB) to finance the construction of the 130km of 220kV double circuit transmission line between Lessos and the Uganda border as well as the upgrading of transformer capacity and associated equipment at Lessos Substation. The project is being undertaken by the Kenya Electricity Transmission Company Limited (KETRACO), which is the implementing Agency for the Government. Specifically, the scope of the works included:

Summary of the Rusumo hydropower project has two key objectives;

The proposed Project comprises the following main components:

(i) A hydroelectric generation plant over the Rusumo Falls of 60-90 MW to be shared between the three countries, and multi-purpose local area development, with the following;
  - Concrete gated combined dam/spillway with a two-lane road on top, dam height of around 15 m;
  - Diversion canal 17m wide and 260 m long;
  - Water intake and a reinforced concrete headrace tunnel, 8 m diameter, 460 m long;
  - Concrete lined vertical surge shaft, 6.5 m diameter and a 32 m chamber;
  - Power house with 3 or 4 Kaplan turbines with vertical axis, 77.5 m^3/s discharge and 3 or 4 x 20.5 MW (approx.) generators, 12 kV output voltage;
  - Tailrace canal 40 m wide;
  - A 220 kV substation switchyard; and
  - Reservoir storage including existing Lake Rweru of around 473 million m^3 at 1,323.5 m.a.s.l level with about 386 km^2 area.
- Local Area Development to improve the quality of life of the population, which may include: expansion of irrigated agriculture; improved drinking water supply; support for fishing; lighting for schools and health centres; support to small craft activities; and other related activities.
- Transmission lines connecting the hydroelectric power plant of Rusumo Falls to the national grids of Rwanda, Burundi, and Tanzania, and the related local area development, consisting of:
  - 220 kV transmission lines: Rusumo Falls to Gitega (Burundi), 161 km; Rusumo Falls to Birembo/Kigali (Rwanda), 109 km; and Rusumo Falls to Nyakanazi (Tanzania), 98 km.
  - Substations in Muyinga, and Gitega, for Burundi; Birembo and Kigali/Bugesera for Rwanda; and Nyakanazi for Tanzania.
  - Local area development along the transmission line corridors and reservoir areas, including but not limited to rural electrification in population centres
- Institutional support for a jointly owned power company and basin-level oversight entity.

- **Transmission lines**

Construction of approximately 130km of 220kV double circuit transmission line from Lessos substation, in Kenya, to the Kenya – Uganda border near Tororo.

- **Substations**

a. Establishment of two 220kV line bays, breaker busbar system
b. Establishment of two 220kV shunt reactor bays on line side
c. Establishment of two 30Mvar, 220kV

The Government of Kenya through Nile Equatorial Lakes Subsidiary Action Program (NELSAP) received a loan from African Development Bank (AfDB) to finance the construction of 130km of 220kV double circuit transmission line between Lessos and the Uganda border as well as the upgrading of transformer capacity and associated equipment at Lessos Substation. The project was to be undertaken by the Kenya Electricity Transmission Company Limited (KETRACO), which is the implementing Agency for the Government. The project involved acquisition of approximately 9629.6 acres of land that transverse through Nandi, Kakamega, Bungoma and Busia counties. The AfDB funded NELSAP Interconnection project consists in total of the construction and upgrading of 769 km of 110 kV and 220 kV line, as well as the construction and reinforcement of 17 transformer stations. These include the Uganda-Rwanda interconnection: the line runs from Mbarara station to Mirama station in Uganda, then from Mirama station to the new Birembo station in Rwanda; the Kenya-Uganda interconnection: the line runs from Lessos station in Kenya to Bujagali station passing through Tororo station in Uganda; and most importantly, the upgrading of the Burundi, DR Congo and Rwanda interconnection.

In DRC, this component consists in upgrading the current line from Goma station to the Rusizi I station in DR Congo from 70 kV to 220 kV, and the line from Rusizi 1 station to Bujumbura in Burundi from 70 kV to 220 kV, as well as the construction of an extension from Bujumbura to Kiliba in DR Congo and the construction of a 220 kV line from Kibuye station to Gisenyi station in Rwanda; and lastly, the construction of the line from Gisenyi station in Rwanda to Goma station in DR Congo. The project also provides for building of the operating and maintenance technical capacities of the said networks.

1.1 Estimated Costs of the Regional Interconnection Projects

Country	Total MUA	ADF		JICA	Burundi	Kenya	Uganda	DRC	Rwanda	NBI
		Grants	Loans							
Burundi	**15.17**	**15.15**	**-**	-	0.02	-	-	-	-	-
Kenya	**41.67**	**-**	**39.77**	-	-	1.90	-	-	-	-
Uganda	**48.14**	**-**	**7.59**	37.48	-	-	3.07	-	-	-
DR Congo	**27.67**	**27.62**	**-**	-	-	-	-	0.05	-	-
Rwanda	**32.40**	**30.47**	**-**	-	-	-	-	-	1.93	-
Total	**165.05**	**73.25**	**47.36**	37.48	-	1.90	3.07	-	1.93	-
Total NBI	**1.59**	**1.21**	**-**	-	-	-	-	-	-	0.38

Total Project	**166.64**	**74.46**	**47.36**	**37.48**	**0.02**	**1.90**	**3.07**	**0.05**	**1.93**	**0.38**
KFW has contributed an additional Euro 15 million to Burundi										

A general assessment can be made of the progress of the project which is fairly satisfactory owing to the nature and complexity of the work. Progress and status of the project activities as at end September 2011 are presented in the table below:

Table 1-1: Progress and status of the project activities as at 12th September 2011

No:	Study	Responsible Consultant	Current Status
1.	**Feasibility Study of the Proposed Project : SNC-LAVALIN** The Final Feasibility Study of the proposed project is partially completed and a Final Feasibility Design Interim Report has been submitted. In this report layout and the design for the RRFP choices completed so far are presented. No information is available as to when the Final Feasibility Study Report will be ready.		
2.	**Livelihood Impact Assessment and Restoration: SNC-LAVALIN** National, Regional and local Stakeholder Engagement meetings have been completed. Village surveys and community consultations have also been completed. Presentation of results to National and local taskforces has been done as well. Ongoing works include: - Physical demarcation Lines in Ngara (Tanzania) and Kirehe (Rwanda) - Affected Household Census of Lands & Assets in Ngara (Tanzania) and Kirehe (Rwanda) - Community Consultations on Restoration & Compensation - Elaboration of Resettlement and Local Development Plans with Stakeholders <u>Other planned works include:</u> - Community Consultations to Discuss and Agree on Livelihood Restoration Options - Awareness Raising Strengthening. This shall include the following outputs: Studying with stakeholders in details most severely affected villages, find replacement land and hold community consultation with host communities - Define Local Area Development Plan and Resettlement Plan), - Presenting results of census of PAPs and finalize RAP & LADP - Plan for transition to implementation of both RAP & LADP		
3.	**Resettlement Action Plan (RAP) For Transmission Lines : FICHTNER-RSWI Consortium** The status of the RAP for Transmission Lines is as follows: The consultants have done 100% of all field work required for the preparation of the RAP and ESIA for the transmission lines for all the three countries.		

Overall project milestones are as presented in the table below;

No:	Activity	Milestone
1.	Completion of Feasibility Studies- Power Plant and Transmission Lines	End of October, 2011
2.	Appointment of SPV Advisor	October, 2011
3.	Terms of Reference for Owner's Engineer	November, 2011
4.	Signing of Tripartite Agreement	November, 2011
5.	Financial Closure	June, 2012
6.	Construction	2013
7.	Commissioning	2016

1.2 Approach and Methodology for the Assessments

Several methods were used by the consultants at the national level to carry out this assignment. These methods are described briefly in the following sub chapters.

1.2.1 Literature Review

Several project documents, project progress reports and literature related to the project were obtained from the consulting firms - SNC Lavalin, Fichtner-RSWI, as well as from the utility companies ie; Energy, Water and Sanitation Authority (EWSA), Rwanda; Uganda Electricity Transmission Co.Ltd (UETCL); REGIDESO(Burundi); Kenya Transmission Company Limited (KETRACO), TANESCO in Tanzania and SNEL in DRC.Other sources of literature included;

- Regional Rusumo Falls Hydroelectric and Multipurpose Project – Power Generation Plant Final Feasibility Study Phase FINAL FEASIBILITY DESIGN INTERIM REPORT VOLUME 1-MAIN REPORT
- Nile Basin Initiative Regional Power Trade Project Comprehensive Basin-Wide Study of Power Development Options and Trade Opportunities / Second Draft Report
- Regional Rusumo Falls Hydroelectric and Multipurpose Project – Power Generation Plant Final Feasibility Study Phase Livelihood Impact Assessment and Restoration Strategies
- Presentation of RAP Progress by Fichtner-RWSI
- Presentation of project progress on Community Involvement in Rusumo Falls Hydropower Project By SNC LAVALIN
- NBD Policy Briefing Paper I; Power Development In The NEL Region Opportunities & Challenges of the Interconnection Project of Nile Equatorial Lakes Countries
- Brief on the Regional Rusumo Falls Hydroelectric and Multipurpose Project by *Rugumire-Makuza E, Advocacy Officer, Nile Equatorial Lakes Region,* Nile Basin Discourse.

- *"Taarifa Fupi Juu ya Mradi wa Uzalishaji Umeme wa Rusumo (RRFP), Katika Ukumbi Wa GoldCrest, Mwanza, Wizara Ya Maji , Ofisi Ya Maji Bonde La Ziwa Victoria Iliyowasilshwa Na Ms. Rosemary A. Rwebugisa 11.05.2011"*
- TORs for undertaking "Assessment on Mainstreaming Local Community Stakeholder Participation and Benefits on Regional Rusumo Hydro-Power and Interconnection Projects'' prepared by TNDF.
- Local District Development Plans

1.2. 2 Field Surveys and Interviews

The consultants visited the project sites in all the countries including the Rusumo Falls in Tanzania, Burundi and Rwanda as well as in the transmission corridors in Kenya, Uganda and DRC. In Rwanda for example, interviews were held with with key personnel in charge of preparation of the local area development plan, resettlement action plan, and district executive officers of Ngoma and Kirehe were undertaken. Additionally the study sought the opinions of village chiefs and medical centres. In Burundi this included field visits to Kirundo and Muyinga provinces to discuss and interview stakeholders (public servants, members of local communities, local government representatives, NGOs, coordinators of development projects, civil society members, minority and vulnerable groups, ...). In Uganda, at district level, key informant interviews were held with government representatives selected by virtue of their roles and responsibilities regarding the development of the project and these included Chief administrative officers, Environment officers, and district valuer in Jinja, Land Officers, district planners, Sub county Chiefs and Chairmen.

A focus group discussion was done at every Sub County comprising representatives of both the political and technical personnel of the Sub County Leadership, the area land committees, grievance handling committees and representatives of CSOs. Household interviews were then undertaken targeting at least ten Project Affected Persons (PAPs) per Sub County but the actual number met was finally eighty six. In all the countries, results from the assessments were shared at a national forum to validate the findings before the national reports were finalized.

Chapter 2:

2.1 The Policy and Legal Context.

Planning and implementation of power development options in the Nile Basin countries are strongly influenced by the policy, institutional, legal and regulatory frameworks of the national power sectors. It is vital for the successful development of power trade opportunities that competent sector institutions, a reliable legal and regulatory framework and responsible handling of social and environmental issues form a conductive environment for facilitating cross border trade and attracting investment in the necessary infrastructure.

With the assistance of multilateral development banks, mainly the World Bank and the International Monetary Fund, most of the countries have developed poverty reduction strategies summarized in a "poverty reduction strategy paper" (PRSP). These papers describe a country's macroeconomic, structural and social policies and programs to promote growth and reduce poverty. They are prepared by governments through a participatory process including civil society. In addition, there have been constant reviews to update the process for better performance.

The poverty reduction strategies are the core objectives of the socio-economic development of all countries. The specific objectives and means to achieve them vary from one country to another depending on the country's baseline situation and priorities in terms of socio-economic development. However, some general objectives are shared:

- Promote good governance and security: strengthening the rule of law, reforming the justice system, increasing the democratic culture, promoting efficient public administration, pursuing decentralization, and tackling corruption, improving security in certain countries through demobilization and disarmament of militants;
- Promote stable, sustainable and equitable economic growth: revitalize agriculture as this sector is the source of livelihood for most of the population;
- Improve access to social services to develop human capital: targeting the health and education sectors, water supply and sanitation, urban planning and decent housing, social safety nets. In all countries, actions toward vulnerable groups are emphasized. In some of the countries such as Burundi and DRC, some actions are geared toward refugees and the displaced people;
- Fight against the HIV/AIDS pandemic: bring a sharp reduction in the spread of the pandemic through prevention of the transmission, access to medicines, support for affected individuals, families and communities, institutional capacity building and, mitigation of the social and economic impacts of HIV/AIDS.

In each country, these major issues are translated in medium and long-term sectoral policies and programs that are to move the countries forward on the human development index. All the poverty reduction strategies are aimed to the achievement of the Millennium Development Goals by 2015. In 2000, the United Nations Assembly established eight goals with their targets and indicators, known as the Millennium Development Goals (MDGs), to reduce extreme poverty worldwide by

2015, while using 1990 as the reference situation. The MDGs have made energy supply a major factor in sustainable development. Energy services destined for consumption (kitchen, lighting, heating, means of communication, etc.) are crucial to improve social welfare, and the energy services needed for production purposes, transportation and mobility, are indispensable for economic development. Power supply projects can contribute in different ways to all of the eight MDGs.

In Tanzania for example, the energy policy guides the development of the energy sector for effective contribution to the growth of the national economy and eventual eradication of poverty. The Policy further recognizes the increasing demand for energy services and emphasizes the need to identify economically and cost effective methods for meeting this demand.

The National Strategy for Growth and Reduction of Poverty (NSGRP) for Tanzania however, is a second national organizing framework for putting the focus on poverty reduction high on the country's development agenda. The strategy recognizes energy as critical for the attainment of the NSGRP and MDG targets in the industry, agriculture, transport and water supply and in the provision of social services sectors.

Table : Showing major Players and their roles in Uganda

Player	Roles
Government of Uganda	Generally the it's the state under which the loan is requested, received, project planned for, implemented, monitored and evaluated and responsible to pay the loan, it operates through its structures
Financiers; African Development Bank and JICA	Provide funds and supervision missions every quarter
Ministry of Finance, Planning and economic Development	Release the RAP fund and pays taxes through the minister of energy
Ministry of Energy and mineral development	Oversees the technical and policy implementation of the project
Wetlands Division Of Min Of Water And Environ	Permits to traverse the wetlands
UETC	Implementing agency on behalf of Uganda and contract consultants, contractors, values make payments to the PAP, monitoring, supervision of project activities before, during and after construction
Supervision consultants/engineer	Supervises the contractor
Government Valuer	Reviews and approves the valuation reports
RAP implementation	Transferring of land pieces to names of UECTCL, Solving grievances, train PAPS to use the funds sustainably
Overseeing NGOs	Advertised and nobody responded , the lender banks have not required it, for produce it will be done

In Burundi, the general policy framework that anchors the project is the Burundi Vision 2025. It recognizes that electricity is the engine for development and, underlines, the importance of energy

security in Burundi development planning. The development of the energy sector is, in Burundi as elsewhere, one of the catalysts for achieving sustainable development. It is also considered as one of the major springboards for a rapid and sustainable poverty reduction. Rural electrification is particularly a priority, taking into account the role of the rural population in the Burundian economy and in the context of the national on poverty reduction.

In this sector, one of the priorities and objectives of the Government is to strengthen the General Directorate of Hydraulics and Rural Energy and REGIDESO network to develop small micro –hydro power plants for a localized electrification and initiate a program to increase access to electricity, especially the connection of the units of transformation and conservation of agricultural products, which if installed in rural areas can serve as a starting point for the whole country.

Particularly regarding urbanization, the Burundi 2025 Vision states that the Government will commit to implement a proactive policy of urbanization and to achieve an urbanization rate of 40%.

In Kenya, The Energy Regulatory Commission (ERC) was established under the Energy Act 2006 to expand the mandate of its predecessor, the Electricity Regulatory Board (ERB). Sessional Paper No. 4 of 2004 on energy laid the policy framework upon which sustainable, cost-effective, affordable, adequate and quality energy services are made available to the domestic economy until 2023. The agenda included a new and robust Energy Act, which, among other things, would create a common energy sector regulator, the Energy Regulatory Commission, as a successor to the ERB. The Energy Act was passed in 2006 and consolidated the Electric Power Act No. 11 of 1997 and the Petroleum Act Cap. 116. The Sessional Paper among other things undertook the following reforms;

- Enactment of an Energy Act to succeed the Electric Power Act No. 11 of 1997 and the Petroleum Act, Cap 116 to facilitate prudential regulation and enhance stakeholder interests including boosting of investor confidence.
- Establishment of a single independent energy regulator under the Energy Act with adequate mandate to regulate all sector players;
- Establishment of a State owned Geothermal Development Company (GDC) to be in charge of geothermal resource assessments and sale of steam to future IPPs and KenGen for electricity generation.
- Privatise KenGen over time starting with an initial public offering (IPO) of 30% of its equity through the Nairobi Stock Exchange;
- Creation of a Rural Electrification Authority to accelerate the pace of rural electrification in the country, a function currently undertaken by the Ministry of Energy;
- Unbundling of KPLC into two entities, one for transmission which will be a 100% state owned and the other for distribution which will be private sector owned;
- Promoting privately or community owned vertically integrated entities either operating renewable energy power plants or hybrid systems, to coexist with licensed electricity distributors;
- Allowing power generation companies to access bulk electricity consumers through the power transmission network;
- Creating a domestic power pool with a provision for wholesale and retail markets to create competition and thus reduce the cost of electricity;

- Privatisation or concessioning isolated power stations to reduce operating costs and thus free up resources for rural electrification expansion;
- Increase lifeline tariff applicable to domestic consumers of up to 50 kWh per month to at least recover the cost of electricity generation

Almost all of the six countries have adopted environmental impact assessment (EIA) policies and laws in the last ten years. These environmental laws subject projects likely to cause significant environmental and social impacts to EIA procedures and authorization by a regulating authority. Only the DRC does not have yet a framework law on the environment, but it does have an implemented policy on environmental and social appraisal of major projects.

In Uganda applicable laws with relevance to land tenure, compensation and resettlement in include the following:

- The Constitution of the Republic of Uganda, 1995
- The Land Act, 1998
- The Land Acquisition Act, 1965
- The Electricity Act, 1999

The 1995 Constitution restored all private land tenure regimes (which had previously been abolished under the Land Reform Decree – 1975 – during the Amin regime), divested the state and the Uganda Land Commission of radical title to the land that was expropriated in 1975, and vested this directly in the citizens of Uganda. The Constitution prescribes the tenure regimes in accordance with which rights and interests in land may be held.

The Electricity Act requires every person intending to construct, own or operate a transmission line to obtain a transmission license. The application for the transmission license is submitted to the Electricity Regulatory Authority (ERA), which is mandated with the issuance of such licenses. The ERA is required to review the various aspects of the proposed project including the impacts of the project on electricity supply, socio-economics, cultural heritage, the environment, natural resources and wildlife prior to making of the decision whether to grant the license.

With respect to Water resources, Tanzania, Kenya and Uganda have modern Water

Compulsory acquisition procedures – The Case for Uganda

Under Chapter Four (Protection and promotion of fundamental and other human rights and freedoms), Article 26 (Protection from deprivation of property), the Constitution states that:

''Every person has a right to own property either individually or in association with others
No person shall be compulsorily deprived of property or any interest in or right over property of any description except where the following conditions are satisfied the taking of possession or acquisition is necessary for public use or in the interest of defense, public safety, public order, public morality or public health; and the compulsory taking of possession or acquisition of property is made under a law which make provisions for prompt payment of fair and adequate compensation, prior to the taking of possession or acquisition of the property; and a right to access to a court of law by any person who has an interest or right over the property.

The Land Acquisition Act, 1965, provides the incidents of compulsory acquisition. Although both the Constitution and the Land Act prevail upon the Land Acquisition Act, this latter remains good law for those provisions which are not inconsistent with these former.

According to the Land Acquisition Act, compulsory acquisition procedural pre-requisites are the following: a statutory instrument should be prepared and signed by the Minister responsible for Lands; this statutory instrument should be gazetted. Due to historical reasons, compulsory acquisition is a sensitive issue in Uganda.

Acts promulgated in the past decade, as well as detailed policy frameworks for water management. In DRC however, a draft Water Act is in preparation, which is to replace the outdated water Act of 1973.

2.2 Land Ownership and regulation

In other cases, the land regulations are entangled and land issues cannot be adequately addressed. For instance, **Kenya** enacted a land policy in 2010; the key highlights of the new policy include barring non-citizens from enjoying the benefits of absolute ownership over land and subjecting them to a leasehold system. The policy also calls for the change of ownership of land covering thousands of acres, so that it reverts to the state.

Land administration is operated on the basis of an updated legal framework and many laws, making conveyance a nightmare. The situation is different in **Tanzania** where the 1967 Land Acquisition Act governs expropriation and the land policy was updated in 1999 when the Village Land Act was promulgated. Land Regulations were promulgated in 2001. However, there still remains confusion in the operation of land policy issues related to customary laws. In Tanzania, there is no Resettlement Act as such, but the Land Acts and regulations referred to above deal with aspects of resettlement.

When lending institutions are on board to finance a project, the specific applicable social safeguard policies and directives of the institution are followed, such as the Resettlement Action Plan approach of the World Bank Group. In **Uganda**, World Bank safeguard policies for resettlement are followed together with the Land Act.

In most countries, the existing laws specify expropriation procedures in the case of public utility interest projects, such as dams or infrastructure projects. In some countries, compensation rates are determined. However, in most cases the existing compensation rates and laws do not cover all aspects of involuntary resettlement such as income restoration of livelihoods and living standards. This situation may negatively affect the standard of living of the affected people and may increase the risk of impoverishment.

In Tanzania however, the law is extremely robust. The Land Act referring to the National Land Policy confirms that all land in Tanzania is public land vested in the President as trustee on behalf of all citizens. However, the following are some of the main objectives of the Land Act:

- To ensure that existing rights in, and recognised longstanding occupation or use of land, are clarified and secured by the law;
- To facilitate an equitable distribution of, and access to, land by all citizens;
- To regulate the amount of land that any one person or corporate body may occupy or use;
- To ensure that land is used productively and that any such use complies with the principles of sustainable development;
- To take into account that an interest in land has value and that value is taken into consideration in any transaction affecting that interest;
- To pay full, fair and prompt compensation to any person whose right of occupancy or recognized long-standing occupation or customary use of land is revoked or otherwise interfered with to their detriment by the state under this Act or is acquired under the Land Acquisition Act; and
- Provided that in assessing compensation for land acquired in the manner provided for in this Act, the compensation shall be based on the following:

- Market value of the real property;
- Disturbance allowance;
- Transport allowance;
- Loss of profits or accommodation;
- Any other cost, loss or capital expenditure incurred with respect to the development of the subject land;
- Interest at market rate; and
- Provision of an efficient, effective, economical and transparent system of land administration.

The Act emphasizes the need to involve affected people throughout the project process.

2.2.1 The Tanzania Land Regulations (2001)

According to Section 10 (1) of the Land (Compensation Claims) Regulation 2001 of Tanzania, compensation of land acquired for the interest of the public shall take the form of:

- Monetary compensation;
- Plot of land of comparable quality, extent and productive potential to the land lost;
- A building or buildings of comparable quality, extent and use comparable to the building or buildings lost;
- Plants and seedlings; and
- Regular supplies of grain and other basic foodstuffs for a specified time.

The Regulation (Assessment of Value for Compensation) states "…the basis for assessment of the value of any land shall be the market value of such land". The market value is arrived at by the use of the comparative method substantiated by actual recent sales of similar properties, or by use of income approach or replacement cost method, in case the property is of special nature and not saleable.

In Rwanda, land, resettlement, expropriation and compensation issues in Rwanda are governed by several legal instruments to ensure equal right to land use for all Rwandan citizens. The objective of these instruments is to maximise land usefulness for economic growth and poverty reduction, ensure equal rights to land for all Rwandans and to protect the environment and land resources. The Organic Land law N0 08/2005 of 14/07/2005 determines the use and management of land in Rwanda. Land Valuation Law of 2007 exposes how land can be valued and the Land Expropriation Law N0 18/2007 of 2007 how land can be acquired for public interest.

Inconsistencies between 4OP4.12 and Rwanda Laws.

Resettlement should be avoided whenever possible according to OP4.12; Rwandan legislation on the other hand considers expropriation of land for public interest as unavoidable (article 6 of the Expropriation Law). The expropriation law No 18/2007 requires that property be handed over in a period not exceeding 3 months after payment of the compensation has been paid. OP4.12 requires that displacement must not occur before necessary measures for resettlement are in place, i.e., measures over and above simple compensation.

Whereas OP 4.12 mandates that persons to be relocated should be meaningfully consulted and given the opportunity to participate in the planning and design of resettlement programs, the Rwandan Expropriation Law simply stipulates that affected peoples be fully informed of expropriation issues and goes further to prohibit any opposition to the expropriation program if considered to be under the pretext of self-centred justification.

The Presidential Order N° 54/01 of 2006 determines the structure, the responsibilities, the functioning and the composition of Land Commissions. This is complimented by Ministerial Order N° 001/2006 to determine the structure of land Registers, the responsibilities and the functioning of the District Land Bureaus. The OrganicLand Law recognizes existing rights, written or unwritten, under both civil law and customary practices through new national land tenure arrangements. Article 3 of the Expropriation Law stipulates that any individual who suffers loss of land, property is entitled to receive fair and just compensation.

Article 4 of this law also stipulates that any project which results in the need for expropriation for public interest shall provide for all just compensation in its budget. Through mutual arrangement, both parties can determine the mode of payment. Article 22 (2) of the of the Expropriation Law provides that through an agreement between the person to expropriate and the one to be expropriated, just compensation may either be monetary, alternative land or a building equivalent as long as either option equates to fair and just monetary compensation. The challenge is to determine what is 'fair and just compensation'.

2.3 An overview of the World Bank OP 4.12 - Involuntary Resettlement Policies

The policy covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by;

(a) the involuntary taking of land resulting in
    (i) relocation or loss of shelter;
    (ii) lost of assets or access to assets; or
    (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or
(b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

To address the impacts covered under para. 3 (a) of this policy, the borrower prepares a resettlement plan or a resettlement policy framework (see paras. 25-30) that covers the following:
(a) The resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are
    (i) informed about their options and rights pertaining to resettlement;
    (ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and
    (iii) provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.
(b) If the impacts include physical relocation, the resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are
    (i) provided assistance (such as moving allowances) during relocation; and
    (ii) provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site.
(c) Where necessary to achieve the objectives of the policy, the resettlement plan or resettlement policy framework also include measures to ensure that displaced persons are;
    (i) offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living; and
    (ii) provided with development assistance in addition to compensation measures described in paragraph 6(a);

(iii) such as land preparation, credit facilities, training, or job opportunities.

To achieve the objectives of the policy, particular attention is paid to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, indigenous peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.

Bank experience has shown that resettlement of indigenous peoples with traditional land-based modes of production is particularly complex and may have significant adverse impacts on their identity and cultural survival. For this reason, the Bank satisfies itself that the borrower has explored all viable alternative project designs to avoid physical displacement of these groups. When it is not feasible to avoid such displacement, preference is given to land-based resettlement strategies for these groups (see para. 11) that are compatible with their cultural preferences and are prepared in consultation with them.

The implementation of resettlement activities is linked to the implementation of the investment component of the project to ensure that displacement or restriction of access does not occur before necessary measures for resettlement are in place. For impacts covered in para. 3(a) of this policy, these measures include provision of compensation and of other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, taking of land and related assets may take place only after compensation has been paid and, where applicable, resettlement sites and moving allowances have been provided to the displaced persons. For impacts covered in para. 3(b) of this policy, the measures to assist the displaced persons are implemented in accordance with the plan of action as part of the project.

Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. These strategies may include resettlement on public land (see footnote 1 above), or on private land acquired or purchased for resettlement. Whenever replacement land is offered, resettlers are provided with land for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the land taken. If land is not the preferred option of the displaced persons, the provision of land would adversely affect the sustainability of a park or protected area, or sufficient land is not available at a reasonable price, non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost. The lack of adequate land must be demonstrated and documented to the satisfaction of the Bank.

Payment of cash compensation for lost assets may be appropriate where (a) livelihoods are land-based but the land taken for the project is a small fraction of the affected asset and the residual is economically viable; (b) active markets for land, housing, and labor exist, displaced persons use such markets, and there is sufficient supply of land and housing; or (c) livelihoods are not land-based. Cash compensation levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets.

Chapter 3:

Key findings from the assessments

3.1 The Rusumo Hydropower Plant

The region concerned by Rusumo hydro-power plant is located in the Kagera Basin and extends from the region of Bugesera in Rwanda to Tanzania, through the North of Burundi, namely Kirundo and Muyinga provinces within Busoni, Gitobe and Bwambarangwe communes in Kirundo province and Giteranyi commune in Muyinga province. A large body of water (reservoir) will be created following the implementation of the dam. The reservoir will flood marshlands, existing river banks and some hillside land, buildings and existing infrastructures.

Data	Overview of project impact at 1323.5m a.s.l			
	BURUNDI	RWANDA	TANZANIA	TOTAL
Number of villages affected	24	111	32	**167**
Percentage of Households Affected in village	47%	23%	17%	**26%**
Number of Households Economically Affected	3,250	3,225	855	**7,330**
Number of Households to Physically Relocate	700	1,325	125	**2,360**
Lost Area(ha)	525	1,125	635	**2,285**
Lost area per household (%)	24%	37%	7%	**21%**
Lost production per household (%)	18%	29%	7%	**19%**

The first indicator to measure the severity of the impact of the Project at community-level is to measure the percentage of households whose plots will be inundated at 1,323.5 m.a.s.l. In Rwanda, approximately 23% of households would have a plot under the shoreline at 1,323.5m a.s.l with the highest severity of impacts in Bugesera, due to the submersion of the Island of Mazane. Schools and health centers will also need to be relocated. Otherwise, in Rwanda, the number of households affected is generally under 30% but there are more than 148 villages facing the Kagera river and surrounding the Lake Rweru, hence the high numbers of affected households.

At 1,323.5: Average energy production drops 3% Bugesera Districts is spared, reducing the number of affected households from 5,600 to 3,225. Kirehe and Ngoma Districts in Rwanda remain affected but also see a drop in affected households from approximately 5,000 to 3,500. Significantly less institutional pressure and resources devoted to mitigation measures. Lost production per household is still high at 29%, similarly lost acreage for production per household is high at 37%. What comes out from the findings is that a considerable number of persons are going to lose their livelihoods and land. 1535 households will have to relocate.

The challenge of the resettlement plan, and livelihood restoration processes is how to implement these measures in a way that ensures that the affected populations are not worse off, but even

better off. This calls for careful planning on the part of the project implementers, but even a more judicious implementation of the process. Intimate involvement of stakeholders during all stages is necessary but not enough. Livelihood restoration measures and support to PAPs needs to be mainstreamed into national development processes as a matter of priority. Resettlement and

reintegration takes more than five years to be entrenched. Mechanisms to monitor and evaluate how PAPs are settling in need to be conceived at the outset of the project.

In Burundi, the terrain is very different and valleys are deep. With water level rising to 1,323.5ma.s.l, the remaining lands form peninsulas surrounded by waters. Villages on top of those hills had a marshland on both sides of their village, which explains why more households in the villages are affected.

Table 3 : Project impact on agricultural system in Burundi

Scenario 1: 1325.0 Scenario 2: 1323.5 Scenario 3: 1322	**MUYINGA**			**KIRUNDO**								
	GITERANYI			**BWAMBARANGWE**			**GITOBE**			**BUSONI**		
	S1	**S2**	**S3**	**S1**	**S2**	**S3**	**S1**	**S2**	**S3**	**S1**	**S2**	**S3**
Households affected	5500	3250	3180	1400	0	0	200	0	0	3450	0	0
Under-hills affected	38	24	22	10	0	0	1	0	0	31	0	0
Total of loss lands	900	525	480	110	0	0	50	0	0	350	0	0
Loss in cultivated marshlands	740	425	400	45	0	0	25	0	0	130	0	0
Loss in cultivated hillsides	160	100	80	65	0	0	25	0	0	220	0	0
Among marshlands, loss of rice field	100	0	0	8	0	0	0	0	0	0	0	0

Source: Preliminary data – Study on resettlement and local development, SNC-LAVALIN.

Previous impacts of the Dam on cultivated lands included already cultivated lands that are lost by specific households. However, the Dam will also flood the potential for developing marshlands which have significantly contribute to food security in the last twenty years, as land became scarcer and scarcer in Burundi and Rwanda. Marshlands have an ecological role, but it is also for families, very productive land during the dry season. Marshlands upstream the Dam site have been identified as potential relocation sites.

The table below presents the impacts of the dam in terms of losses and opportunities. Some identified irrigation perimeters will be abandoned when the Rusumo Falls Project is approved because the area affected is too large and the perimeter is not longer cost effective. However, there are also new opportunities as a result of lower pumping costs as the water shoreline nears the shore.

Table: Impacts of the Dam on Major Projects

	KWAMP(ha)	PAIRB (ha)
Abandoned Perimeters (Too Much Area Lost by the Flooding) 770 0	770	0
New Perimeters (Pumping Cost Reduction) 500 0	500	0
Kept Planned Perimeters (Minimal Area Lost by the Flooding) 300 1000	300	1000
Upstream Relocation Area to be Assessed 950 0	950	0
Marshland Development Remaining Unaffected		1500

The Kirehe Community-based Watershed Management Project (KWAMP) aims to promote poor smallholders of Kirehe district to overcome their food insecurity and low agricultural incomes, to arrest land degradation and to restore soil fertility. The goal of the project would be the reduction in rural poverty in Kirehe District, as evidenced primarily by a step improvement in household food and nutrition security, asset ownership and quality of life indicators, particularly amongst vulnerable groups including woman-headed households, orphans and those living with HIV/AIDS. The immediate objectives of the project converge on the development of sustainable profitable small-scale commercial agriculture in Kirehe District. Sustainable incremental income from farming and related economic activities is the operational instrument for poverty reduction among the poor majority in Kirehe.

Kirehe District has been supported by KWAMP since two years already and has still guaranteed funds until 2016. A grant agreement was signed in Kigali on November 04, 2008, between the Republic of Rwanda, and the International Agricultural Development Fund (IFAD) and the World Food Program. The total project cost is USD 49.32 million.

In that context, Kirehe District and KWAMP have been very insightful in assessing impacts of the Rusumo Falls Project on current irrigation projects and in identifying replacement solutions for those development as well as resettlement sites for severely affected villages of Kirehe. KWAMP has approximately 2,000 hectares in development, among which at least 1,000 in the affected area of Rusumo Falls Project.

3.1.2 Along the Transmission Lines

The major negative impact is the relocation of households that are within 30m corridor. Resettlement is always a grievous experience that should be avoided wherever possible. Bypasses have been introduced around high impact areas. A total of 82 households shall be relocated in Tanzania along the two transmission lines; one to Nyakanazi and the other to Burundi. Out of the 82 affected households, 69 are in Ngara district and 13 in Biharamulo district.

Other expected negative impacts are:

- Land expropriation requirement of 6.43 ha, of which 4.14 ha for tower foundations and 2.29 ha for Nyakanazi substation. Households with land where these structures are to be built shall loose it permanently.
- 17.9 ha of crops shall temporarily be destroyed during land survey and construction
- 7,700 trees (min. 5 years old) and 26 ha of banana plantations shall be cut during land survey and construction
- Buildings shall be demolished; primary school building, 1 Government Police building, 1 AGT local church hall, 1 camping lodge and 4 buildings of Ngara District Council.

3.1.3 At the Substations

At the substation at Nyakanazi, the location of the substation has been located in an area that is not settled. As such, no household shall be relocated. Only land has to be acquired for its construction. One substation requires an area of 2.29 hectares of land. Even though there is plenty of land in Tanzania compared to Burundi and Rwanda, the land that shall be acquired for construction of the substations would have been used by the households for other purposes like cultivation, grazing animals, or even settlement in the future. Even if the households are compensated, they may misuse the compensation money and if they buy land to replace the lost one, they will spend more time going to the new land to cultivate or graze animals.

the 220kV double circuit transmission line will run from Bujagali in Jinja via Tororo substation to the Uganda/ Kenya border. This is over a distance of 127.7km traversing the Districts of Jinja, Mayuge, Bugiri, Iganga and Tororo. In all the Sub Counties affected are 17 with 87 villages, 296 residential houses to be displaced, 37 institutions, 30 shrines, 987 graves and 56 physically displaced/vulnerable households. Other statistics of the affected population from the RAP study include 2429 households, 3006 number of transactions to be closed to ensure vacant possession, 2466 land owners, 540 sharecroppers, 789 residential dwelling (principle dwellings occupied by owners at the time of census), 50 households eligible for in kind settlement (those requiring replacement of affected dwelling), 86 vulnerable categories, 50
According to the RAP study, the total land requirements include; Total 1282.41 acres, right of way totaling to 172.51 acres, way leaves totaling to 1104.90 acres and Tororo Sub Station for 5 acres.

The Right-Of-Way is the land required for a maintenance track under the line and the location of the towers. This corridor is 5 meters in width which suffices for both the access path and the 4 legs of towers. The 5-metre wide Rights of Way will belong to UETCL because this land must be accessible at all times by UETCL for maintenance purposes. The Right-Of-Way is deemed not to have any residual value for its current owners, and will, therefore, be compensated in full to its present owners. The Right-Of-Way is the land required for a maintenance track under the line and the location of the towers. This corridor is 5 metres in width which suffices for both the access path and the 4 legs of towers. The remaining corridor (way leave) of 17.5m on either side be compensated for perennial crops and infrastructure but the ownership remains for the households and they can grow seasonal crops there.

The general landscape of the region through which the proposed transmission system passes is comprised of flat or

Compensation options in Uganda

Option 1: Cash for crops and developments including disturbance allowance. Applies to only licensees.
Option 2: Cash compensation for crops, land, fixtures and developments. Applies to tenants and land owners.
Option 3A: Either cash compensation for all interests or kind for residence on owners land. Applies only to those very vulnerable and determined to utilize cash.
Option 3B: Cash or kind compensation for house and land. Applies only to those very vulnerable and determined as unable to utilize cash effectively.
Option 3C: Cash compensation for all structures whether commercial or residential. Applies to those determined as capable of utilizing the cash to replace residences.

- Compensable items include; perennial crops (bananas, coffee, etc), trees, fixtures (fences, graves, shrines etc0, permanent building, non permanent building, cultural artifacts (assistance in relocation/appeasement.

- Payment for cash is either through cash itself or through the bank. Amounts ranging bellow 100,000 UGX will be paid in cash and those above will be by the bank draft and those beyond twenty million will be split into two EFT parch ages.

round topped hills, valleys incised into the plateau with farmlands and occasional swamps. The area lies to the north of Lake Victoria, commonly referred to as the banana -coffee belt. In the eastern portion of the proposed Bujagali transmission system, the agricultural activities are characterized by small-scale coffee banana based inter-cropping or intermixed systems in the Victoria Nile area and large-scale sugarcane production both to the east of the Mabira CFR.

3.2 The Uganda - Kenya Transmission Corridor

On the Uganda side, the 220kV double circuit transmission line will run from Bujagali in Jinja via Tororo substation to the Uganda/ Kenya border. This is over a distance of 127.7km traversing the Districts of Jinja, Mayuge, Bugiri, Iganga and Tororo. In all the Sub Counties affected are 17 with 87 villages, 296 residential houses to be displaced, 37 institutions, 30 shrines, 987 graves and 56 physically displaced/vulnerable households. Other statistics of the affected population from the RAP study include 2429 households, 3006 number of transactions to be closed to ensure vacant possession, 2466 land owners, 540 sharecroppers, 789 residential dwelling (principle dwellings occupied by owners at the time of census), 50 households eligible for in kind settlement (those requiring replacement of affected dwelling), 86 vulnerable categories. According to the RAP study, the total land requirements include; Total 1282.41 acres, right of way totaling to 172.51 acres, way leaves totaling to 1104.90 acres and Tororo Sub Station for 5 acres.

The Right-Of-Way is the land required for a maintenance track under the line and the location of the towers. This corridor is 5 meters in width which suffices for both the access path and the 4 legs of towers. The 5-metre wide Rights of Way will belong to UETCL because this land must be accessible at all times by UETCL for maintenance purposes. The Right-Of-Way is deemed not to have any residual value for its current owners, and will, therefore, be compensated in full to its present owners. The Right-Of-Way is the land required for a maintenance track under the line and the location of the towers. This corridor is 5 metres in width which suffices for both the access path and the 4 legs of towers. The remaining corridor (way leave) of 17.5m on either side be compensated for perennial crops and infrastructure but the ownership remains for the households and they can grow seasonal crops there.

The general landscape of the region through which the proposed transmission system passes is comprised of flat or round topped hills, valleys incised into the plateau with farmlands and occasional swamps. The area lies to the north of Lake Victoria, commonly referred to as the banana -coffee belt. In the eastern portion of the proposed Bujagali transmission system, the agricultural activities are characterized by small-scale coffee banana based inter-cropping or intermixed systems in the Victoria Nile area and large-scale sugarcane production both to the east of the Mabira forest reserve.

In Kenya, the review of thr RAP is currently underway. The proposed transmission line was determined in 2007 and would run parallel to the existing 132 kV line. The pre-feasibility study concluded that the maximum width for the new right of way (RoW) is 30 meters. The census survey was undertaken in 2007 and updated in June 2010. The area covers two provinces: Rift Valley and Western ; five districts; Nandi North, Kakamega North, Bungoma South, Teso and Busia; 14 divisions including Amagoro, Amukura, Bumula, East Kabras, Kanduyi, Kilibwoni, Kosirai, Malava, Nambale, Navakholo, Webuye and West Kabras.

In the census survey report, a total of 818 people would be affected by the project. 338 houses will be affected belonging to 26 different households. The census shows that 42% of these households do not have land to reconstruct their houses. Secondary structures will also be affected by the

proposed line. In total, 1037 structures will be affected by the proposed line. All the impacted households have a cultivated parcel affected by the way leave. About 237 households interviewed were growing an average of 2,978 m2 of sugarcane translating into 693,067m2 in the way leave. The other major crop grown in the way leave are maize and beans covering a total area of 693,067m2 and 124,495m2 respectively. It is expected however that these figures will change slightly once the current final RAP process is concluded.

Chapter 4:

Key issues for policy dialogue.

4.1 Stakeholder involvement, Community participation and information

Stakeholder engagement is now internationally accepted as an essential component of project environmental and social appraisal procedures, where the fundamental principle is that people who will be affected by a project have a right to a say in the decisions determining how it is developed. Stakeholder engagement is seen also as having an important role too at the level of strategic or sectoral planning, but at this level the objectives and modalities of participation are less clear-cut or more variable.

In all the countries, at the community level, there is an ongoing process of engagement, consultation and participation but the national assessments should reveal that participation of project affected opulations has been limited to 'being informed bout the project', to being enumerated, and discussing land demarcation. Most of the consultations have been with government/state officials and a few local leaders. Although there are committees, sometimes the villagers are reticent to voice their apprehensions in front of their local administration for fear of being considered 'antidevelopment'. There is need to explore other Multi-stakeholder processes that will capture the voice of the voiceless. This can be done by civil society organizations or the implementers of the project. There is also need to include other stakeholders5 at government level and grassroots in decision making processes. A robust multi-stakeholder process and strategy should be developed. Stakeholder involvement cannot happen without strategic communication.

In respect of the Rusumo HPP, the project is at an advanced stage but key stakeholders at the national level especially Ministries of Finance, Ministries of Justice, Local government and Water Resources have not been effectively involved despite the serious adverse impacts that are anticipated as a result of the project.

4.2 Local Area Development

In all the projects, all a number of proposals are placed in the Local Area and Community Development Plans in the project areas. For example, in the Rusumo HPP, there is a potential for funding of the Local Area Development Plans by the Rwandese Government and donors through on-going donor projects in most affected areas through KWAMP (IFAD) and PAIRB (AfDB) projects which will continue to be financed for the next 3 to 5 years. However, the consulting teams note that there is very low support for Local Area Development Plans from the governments and donors in Burundi. With the uncertainty in financing of the Local Area Development Plans for Burundi, it is likely that the project implementation will delay unless the Burundian Government is assisted in financing the RAPS and LADPs. In Ngara district in Tanzania which is less developed with no major development projects/partners who could contribute towards development and implementation of the Local Area Development Plans for the affected people. The district and regional authorities will

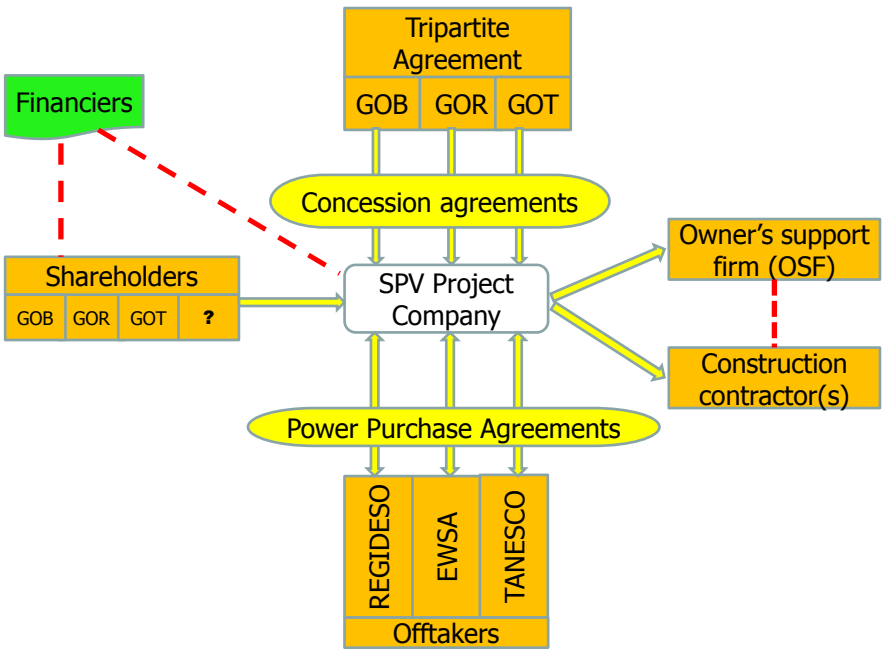
need to mobilize resources elsewhere to meet these costs. That source would have to be national budgets from governments.

In September, the RHP project was officially endorsed as Regional Rusumo Hydropower Project and not the Regional Rusumo Falls Hydroelectric and Multipurpose Project. The implication of this is that the entire community benefits package for host rural communities along the power transmission lines and project site at Rusumo which include among others, electrification of rural growth centers and multipurpose development of centers along the lines corridors will now be eliminated altogether. There will be therefore no immediate, direct benefits to rural communities from the project unless efforts are made by national governments out of the scope of this project to undertake such projects.

4.3 Institutional Coordination

Currently, the implementation of the resettlement plans shall be handled at national level rather than regional level, as recommended by the international consultants. This means there will be three country implementation units responsible for identification and compensation, resettlement and reinstallation as well as livelihood restoration applying three different policy, legal and financial mechanisms. The resulting policy, legal and economic value differences will significantly impact on different local communities differently.

The Tripartite Agreement once prepared will supersede the Joint Project Development Agreement. The Tripartite Agreement will ultimately be superseded by the Shareholders Agreement. The plant will be structured as a publicly funded, publicly owned privately run special purpose vehicle (SPV) to be registered in an agreed country. In September, the PIC approved additional positions to strengthen the PMU which will coordinate and supervise the work until the Special Purpose Vehicle is established.



Ministers will be able to sign the Tripartite Agreement in November but there is no clear commitment on timelines when the SPV will be established or when the shareholders agreement will be completed or better still, negotiated. No analysis has so far been done to establish the best country to host the SPV. The SPV will be the owner of Rusumo Hydro Power Plant and but a lot of preparatory works that should have been undertaken by the SPV are now being managed by NELSAP eg, recruitment of the Owner's Engineer and other key technical staff despite its lack of sufficient capacity.

In terms of financing, it is still not clear if WB will take up an equity stake in the SPV. This is a risk to the ownership matrix when a creditor takes up equity position especially if their loan is significant. Ministries of finance have received no information whatsoever that they will need to allocate upto USD.90M for resettlement alone from their national budgets.

Challenges in the Interconnection Projects:
At an institutional level;

- There is al need for a transparent and harmonized set of commercial rules of practice to facilitate power trade.
- Building the necessary capacity to plan, build, operate, and manage cross border interconnection in all the countries.
- Currently, there are huge power supply constraints which hinder cross border trade. We need more power generation projects.
- Resources mobilization

In working with stakeholders and especially civil society;

- Capacity of civil society organizations across the sub-region is varied and still inadequate
- Inadequate engagement at sub-basin level
- Inconsistencies in follow-up over project life – power and other infrastructure projects take long, require patience and this can be challenging.
- There is need to do more to invest in empowering communities and affected groups within the decision-making framework of the projects in the basin and with the right information.

4.4 Weak legal frameworks

In most countries, the existing laws specify expropriation procedures in the case of public utility interest projects, such as dams or infrastructure projects. In some countries, compensation rates are determined. However, in most cases the existing compensation rates and laws do not cover all aspects of involuntary resettlement such as income restoration of livelihoods and living standards. This situation may negatively affect the standard of living of the affected people and may increase the risk of impoverishment. In Burundi for example, the main texts of laws of reference for the expropriation, compensation/indemnity are not well known by the public in general and PAPs in particular. There is a revised land code and the ministerial order on compensation rates for expropriation for public purposes but there should be awareness raising on these legal provisions. The second concern is that certain provisions of existing laws could delay the process of compensation/indemnity and deserve the attention of policy makers. These include, as we noted above, the revised land code that provides the establishment of a National Land Commission involved in the expropriation process and that is not yet nominated. It is also important to have the same understanding of the provisions of this code particularly on the status of the marshlands to determine the nature of compensation/indemnity to be given to the affected populations.

The *Loi du 20 juillet 1973 portant regime des biens, régime foncier et immobilier* provides for the protection of downstream ecosystems. A draft Water Code is in discussion since July 2000. The State is the sole owner of ground but must obtain the agreement of the chief (there is a hierarchy of chiefs) before the alienation of land. A Decree of 1931 provides for expropriation and compensation for the installation of transmission lines.

4.5 Adequacy of compensation

All the countries have different mechanisms for compensation and in almost all cases, local communities are not involved in valuation. In Kenya, in the four counties the PAPs observed they would need to be assured of some minimum employment duration the power line construction in order to acquire necessary skills and re-establish living standards. The Resettlement and community development action plans may therefore include provisions for at least three years of temporary employment, from the date of employment, for affected persons who may choose employment options. Wages at minimum must equal previous income (earnings from previous wages or other income, and replacement cost of subsistence goods) or the prevailing minimum wage, whichever is higher. This should consider the inflation level in the country and reflect government labour policies. In addition, enterprise-based livelihood restoration measures including credit or training for established and nascent entrepreneurs and artisans may be put in place to expand their business and generate local employment.

In Uganda, an independent valuer was contracted as per the guidelines from the Uganda Survey Registration Board. The consultant followed the surveyor in identifying and costing the properties of the PAPs. He submitted a report to the Government Valuer who later approved it and this is currently being used for disclosure.

The process is said to have taken almost a year for the consultant to take stock of all the individual details of the PAPs properties and attach value to them, and took another turn for the Government valuer to do verification of the existence of the valued properties and also approve the values attached to them.

In Muyinga and Kirundo provinces in Burundi, local administrative officials have already stated that there is no more land for occupation and which could be given as compensation to the people who will lose the land following the construction of Rusumo falls dam and transmission lines. As a result, government will therefore be required to grant cash compensation to the affected populations. Clearly, it is unforeseeable that such PAPs would get land to buy when government could not get in the first place.

In general, when asked about preferred mitigation measures to offset negative project impacts, Rwandan and Burundian villages have a strong desire to be compensated with equal value land 36.7% in Rwanda and 34.7% in Burundi, since many of the communities affected by the project are predominantly dependent on agriculturally based economic activities (both subsistence and commercial levels). Cash was also favored as a way to fairly compensate for losses although cash compensation will clearly be inappropriate to compensate for loss of land since there is usually very little or no land available that could be purchased with cash and affected populations would be left impoverished in the long term. More importantly however, cash compensation significantly rob women of their livelihoods as male household heads squander cash compensations at the expense of their families. This fear was shared in all countries.

4.6 Gender Implications and Vulnerable Groups

Women are often the first to suffer when resettlement is badly planned and executed. Gender equity principles enshrined in the national government gender policy should be implemented noting that;

- Women comprise a disproportionately large number of the poor in most areas.
- Gender discrimination limits women's access to resources, opportunities, and public services necessary to improve the standard of living for themselves and their families.
- Women tend to rely more heavily than men do on informal support networks, such as help of friends, neighbours, or relatives for child care.
- Women with children have less physical mobility to travel to find ways of earning a livelihood.

In Kenya, there were proposals that considering all these and to apply rule of equity, women headed households should be given extra 5% on top of their normal compensation package to cushion them from be coming economically vulnerable and the extra percentage should be added on top of the 15% disturbance allowance. When preparation period is being set the special needs of women must be considered. The process should allow a reasonable time period prior to moving, for salvage of building materials. For Lessos-Tororo transmission line project the community members are not aware of any special consideration intended for the female gender.

During the relocation period, PAP's may salvage any material without this being deducted from compensation entitlements. In case of couples living together with man as the family head joint account should be appropriate for the compensation package to ensure that women are also involved and participate actively. The resettlement process should consider water availability in the host area to reduce burden faced by women in looking for livelihood sources. Since women are vulnerable to diseases because of their reproductive nature, affected health facilities which are considered to be public utilities should be constructed and better for utilization under corporate social responsibility proposed by the project authorities.

In Uganda, it was noted that vulnerable people including; women, sick, aged, child headed families, minors, widows should be focused on in a special way through;

- Transporting them to venues of meetings and where possible reaching them in their home for them to enjoy their right to information like any other community member
- Always ensuring that they have a Next of kin to attend activities of the project
- Providing information whenever we can
- Some projects have projects that specifically target the vulnerable and

In most of international best practice guidelines, strict measures are stipulated to involve the women. The findings in Uganda for example confirm that more men as decision makers and thus attending almost all meetings and expected to receive the compensation and probably use it with minimal involvement of their spouses. The approach used so far constitutes non-compliance with the requirements of both World Bank OM 600 and the Policy on Gender.