

**RESETTLEMENT AND COMPENSATION ACTION PLAN FOR THE  
PROPOSED SINDILA MINI HYDROPOWER PROJECT IN SINDILA  
SUB-COUNTY, BUNDIBUGYO DISTRICT, UGANDA.**



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## CERTIFICATION

We, the undersigned, certify that we have participated in the preparation (Butama Hydro-Electricity Company) and update (Atacama Consulting) of the Resettlement and Compensation Action Plan (RAP) for the proposed Sindila Mini Hydropower Project, to be located on River Sindila in Sindila Sub-County, Bundibugyo District, Uganda.

Updating of the RAP as undertaken by Atacama Consulting was focused on addressing the gaps identified following a gap analysis, bench-marking the RAP against the requirements of the International Finance Corporation (IFC) Performance Standards (PS). The integrity of the original RAP as prepared by Butama Hydro-Electricity Company Limited remains the same. We hereby certify that the particulars provided when addressing the identified gaps as included in this updated RAP are correct and true to the best of our knowledge.

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## ABBREVIATIONS AND ACRONYMS

AFDB	African Development Bank
AIDS	Acquired Immuno Deficiency Syndrome
BIDP	Bundibugyo Industry Development Plan
CAADP	Comprehensive Africa Agriculture Development Programme
CDM	Clean Development Mechanism
CDP	Cocoa Development Programme
CGV	Chief Government Valuer
CSR	Corporate Social Responsibility
DLB	District Land Boards
DLT	District Land Tribunals
DRC	Democratic Republic of Congo
EM	Electro-Mechanical
ERA	Electricity Regulatory Authority
ERP	Electricity Regulatory Plan
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FAO	Food and Agricultural Organisation
FGD	Focus Group Discussions
GDP	Gross Domestic Product
GIS	Geographical Information System
GoU	Government of Uganda
GPO	General Purpose Outlet
GPS	Global Positioning System
GWh	Giga Watt Hour
HIV	Human Immuno deficiency Virus
HSE	Health Safety and Environment
IAP	Interested and Affected Parties
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFC PS 5	International Finance Corporation Performance Standard Five
IVS	International Valuation Standards
Km	Kilo meter
L.C V	Local Council Five
L.C.IV	Local Council Four
L.C.II	Local Council Three
LAN	Local Area Network
LC I	Local Council One
LRP/LIF	Livelihood Restoration Plan/Livelihood Improvement Framework
LTD	Limited
M	Meter
MEMD	Ministry of Energy and Mineral Development
MHP	Mini Hydro Power
MHPP	Mini Hydro Power Project
MW	Megawatt
NEMA	National Environment Management Authority
NGO	None Government Organisation
NWDR	National Water Development Report
O&M	Operation and Maintenance
OP	Operational Policy
PAH	Project-Affected Household
PAP	Project-Affected Person
PAI	Project Area of Influence
PPE	Personal Protective Equipment
RAP	Resettlement Action Plan
RCC	Reinforced Cement Concrete
RMNP	Rwenzori Mount National Park

SACCOS	Savings and Credit Cooperative Societies
SHP	Small Hydropower Projects
STI	Sexually Transmitted Infections
UBOS	Uganda Bureau of Statistics
UEGCL	Uganda Electricity Generation Company Limited
UETCL	Uganda Electricity Transmission Company Limited
UGX	Uganda shillings
UIA	Uganda Investment Authority
UNAIDS	United Nations Programme on HIV/AIDS
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
USD	United States Dollar
VAT	Value Added Tax
WB	World Bank
WB.OP 4.12	World Bank Operational Policy 4.12
WMP	Waste Management Plan

## GLOSSARY

**Note:** Several of the definitions below are sourced from the IFC's "Handbook for Preparing a Resettlement Action Plan", 2001, with or without modifications as relevant to this Project.

**Compensation:** Payment in cash or in kind at replacement value for an asset or a resource that is acquired or affected by the project at the time the assets need to be replaced.

**Economic Displacement:** Loss of income streams or means of livelihood resulting from land acquisition or obstructed access to resources (land, water or forest) caused by the construction or operation of the project or its associated facilities. Not all economically displaced people need to relocate due to the project.

**Physical Displacement:** Loss of shelter and assets resulting from the acquisition of land associated with the project that requires the affected person(s) to move to another location.

**Project-Affected Area:** An area which is subject to a change in use as a result of the construction or operation of the project.

**Project-Affected Household (PAH):** A PAH is a household that includes one or several Project Affected Persons as defined above. A PAH will usually include a head of household, his/her spouse and their children, but may also include other dependents living in the same dwelling or set of dwellings, like close relatives (e.g., parents, grandchildren etc.).

**Project-Affected Person (PAP):** Any person who, as a result of the implementation of the project, loses the right to own, use, or otherwise benefit from a built structure, land (residential, agricultural, pasture or undeveloped/unused land), annual or perennial crops and trees, or any other fixed or moveable asset, either in full or in part, permanently or temporarily.

**Replacement Value:** The rate of compensation for lost assets must be calculated at full replacement value, that of the assets plus transaction costs (taxes, registration fees, cost of transport associated with registration of new land and land transfer, e.t.c). The replacement value must reflect the cost at the time the item must be replaced. With regard to land and structures, "replacement value" is defined as follows:

**Agricultural land:** The market value of land of equal productive use or potential located in the vicinity of the affected land, plus the cost of preparation to levels similar to or better than those of the affected land, plus the cost of any registration and transfer taxes.

**Land in urban areas:** The market value of land of equal size and use, with similar or improved public infrastructure facilities and services, preferably located in the vicinity of the affected land, plus the cost of any registration and transfer taxes

**Household and public structures:** The cost of purchasing or building a new structure, with an area and quality similar to or better than those of the affected structure, or of repairing a partially affected structure, including labour and contractors' fees and any registration and transfer taxes.

In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of the benefits to be derived from the project deducted from the valuation of an affected asset.

**Resettlement Assistance:** Support provided to people who are physically displaced by the project. Assistance may include transportation, and social or other services that are provided to affected people during their relocation. Assistance may also include cash allowances that compensate affected people for the inconvenience associated with resettlement and defray the expenses of a transition to a new locale, such as moving expenses and lost work days.

**Vulnerable Groups:** People who by virtue of gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status may be more adversely affected by resettlement than others and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits.

## EXECUTIVE SUMMARY

Butama Hydro Electricity Company Limited (Ltd) proposes to set up a hydropower facility (the Sindila Mini Hydro Power Project) in Sindila Sub-county, Bundibugyo District, Western Uganda. The Sindila MHP is a proposed hydropower facility expected to generate 5.25MW of electricity with an annual energy output of 26.6GWh. The proposed Sindila MHP is to be located in the middle reaches of River Sindila in the villages of Kyebumba, Ntuma and Kabwe in Bunyamwera Parish, Sindila Sub-county, Bughendera County in Bundibugyo District. All the civil engineering structures will be located within two LCI areas (Ntuma and Kabwe) of Sindila Sub-county. The proposed weir (63773.152N, 833539.47E) and the headrace channel are to be located in Ntuma village while the forebay tank, penstock and powerhouse are to be located within Kabwe village.

The power generated from the facility, will be sold to the Ugandan utility, the Uganda Electricity Transmission Company Limited (UETCL), based on a power purchase agreement the company shall enter into with the entity. The power generated at the Sindila MHP will be connected to the National Grid, either through (i) a new 5.7km long 100 AAC 33kV interconnection line from the Sindila MHP to a new switching station in Busunga and construct another 1km 33kV line from Ndugutu to Sindila. Conversion of the Busunga-Bundibugyo-Fort Portal line to a double circuit 200sqmm AAC line has also been proposed or, (ii) through a 33kV transmission line to be newly constructed from Nyahuke town (the nearest point of the existing line). The length of the transmission line is 5.7km and it follows along the reservation of the existing District Road from Nyahuke town to Bunyangule via Butama village and then along the proposed powerhouse access road.

Implementation of the proposed Sindila MHP will necessitate both permanent and temporary land acquisition. Permanent land acquisition will be necessary for the establishment of permanent project infrastructure like the weir, headrace, forebay, penstock, power house and access roads to allow access to these project components and the total land area required for the project is 13.0758 acres.

In light of the above, it was imperative to ensure that a Resettlement Action Plan (RAP) is prepared for the proposed project. The objectives of the RAP were therefore as follows:

- To identify Project Affected Persons (PAPs) and their property;
- To develop a valuation methodology for PAPs and their properties;
- To put in place a RAP for mitigating potential livelihood impacts for PAPs; and
- To carry out community and stakeholder consultation with a view of informing the mitigation alternatives.

The objectives of the RAP directly align with the requirements of the Laws of Uganda and IFC PS 5 on Land Acquisition and Involuntary Resettlement (2012) and include the following:

- Avoid or at least, minimise displacement, wherever feasible, by exploring alternative project designs.
- Avoid forced eviction.
- Mitigate the adverse social and economic impacts of land acquisition or restrictions on land use by: (i) providing compensation for loss of assets at full replacement cost and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation and the informed participation of those affected.
- To improve, or restore, the livelihoods and standards of living of displaced persons and;
- To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites.

Pertinent laws relating to land administration, tenure and ownership, transfer of interests and expropriation in Uganda including those that have a direct bearing on involuntary resettlement as included in Chapter 3 of this RAP were considered, reviewed and adhered to during the preparation of the RAP.

During the RAP preparation process, consultations were also held with relevant stakeholders, including potential beneficiaries, affected groups, and local authorities with regards to the proposed project's environmental and social aspects and their views considered during RAP preparation. In addition to the above, one of the aims of the consultations was to build consensus and ensure that the community is well versed with the proposed project.

A number of key stakeholders were involved in the consultations component of the RAP socio-economic baseline study. In general, consultations were carried out with three groups of stakeholders, namely:

- Directly affected persons;
- Indirectly affected persons; and
- Government Agencies.

The complete socio-economic survey determined that the total number of project affected persons (PAPs) is 411/107 households. Of the 107 households, 22 households will lose more than 20 percent of their land and 5 households will lose 100% of their land. There are two small houses located within the original channel path of the project which is now within the penstock trace, since the forebay has been moved much closer to the weir in the new project design. It will be possible to shift the penstock slightly to avoid these houses during design finalisation without a material change in the cost or timing of the project. This exercise was not undertaken as part of the RAP update because of the short time available for the resubmission. It will be carried out during the process of the final cadastral survey prior to acquisition of land required for the project.

There are a further five houses which are in close proximity to the penstock although not within the land corridor to be acquired for the project. Since the project element passing nearby is a penstock pipe, and not an open channel, this project element will have little or no adverse impact on these houses during construction and operation of the plant. The change in the design of the project will avoid the physical displacement by the project activities but the project will still offer a disturbance allowance to the afore-mentioned PAPs dating back to the valuation cut-off date.

Majority of PAPs derive their livelihood from agriculture and it was found that land is still the most precious asset that the people in the area possess and any intervention that disturbs their land could affect their livelihoods and poverty levels. Replacement of agricultural land in the same area with location advantages and other factors which are at least equivalent to the advantages of the old sites is largely possible because land is available but this has to be done through consultation with PAPs. Land for land compensation is the best alternative recommended for the Sindila MHP. However, as indicated in Section 7 of this updated ESIS, majority of the PAPs prefer monetary compensation. The compensation review committee will therefore need to review this on a case by case basis so as to ensure that PAP livelihoods are sustained or improved, even though PAP preferences must be majorly considered. Cash in hand will however, not be supplied. All the PAPs desiring to receive monetary compensation will open up bank accounts with, where necessary, the assistance of the project developer at nearby registered banks, into which the compensation funds will be channelled.

It is imperative that during implementation of this RAP, special attention is paid to vulnerable PAPs – identified as, persons who, by virtue of their gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status, may be more adversely affected by resettlement than others and who may be limited in their ability to

claim or take advantage of resettlement assistance and related development benefits. This is because the resettlement process may potentially result in the risk of vulnerable people losing the support of their benevolent and social networks especially where cash compensation is opted for by majority of the PAPs than land for land compensation – as is the case with the Sindila MHP. During the September 2014 socio-economic census survey, it was found that of the total number of PAPs (411), 196 were female, 177 were children below the age of 18 years, and 1 was disabled. Therefore, this calls for careful screening to help vulnerable groups improve or at least re-establish their lives and livelihoods. In addition, for displaced people, past experience elsewhere in Uganda has shown that cash compensation impacted badly on the household's long-term economic sustainability. This proves particularly detrimental to women and children in the household. To avoid potentially vulnerable households opting for cash compensation if they are obviously unable to manage the sudden influx of cash, the following provisions are proposed:

- I. Establishment the Compensation Review Committee and;
- II. Any physically or economically displaced household that preliminarily opts for cash compensation instead of resettlement would be reviewed for sustainability by this Committee; only once the Committee is satisfied that the household indeed has a project that ensures long-term sustainability of the cash compensation option, will the household be declared eligible for cash compensation.

For the RAP to be successful there will be need for continued monitoring and evaluation. This will ensure that arising issues are properly addressed. At a minimum, monitoring activities proposed include, but will not necessarily be limited to the following:

Assess resettled satisfaction against the following criteria:

- Site location and layout, house design, house construction;
- Agricultural plots (fertility, size, assistance);
- Public services (water, power, health and education);
- Livelihood restoration (are they better or worse off?); and,
- Check access of resettled people to ownership (actual delivery of title deeds) for the resettlement plots and houses.

For the compensated:

- Review and assess the compensation process and delivery of entitlements, and;
- Review and assess compensation rates against the “full replacement value” requirements, and check whether those who were compensated for lost structures were able to rebuild similar buildings.

The developer will provide both the financial input into the resettlement process as well as significant additional managerial and technical expertise. Following approval of the updated RAP, the developer will constitute a resettlement unit for RAP implementation. The resettlement schedule for land acquisition, structure demolition and relocation will be coordinated with the developer. The implementation of this RAP will be undertaken by a party chosen by the developer for a period of 36 months.

IFC requires that wherever possible, the project sponsor should avoid or minimize the displacement of people by exploring alternative project designs. Where displacement is unavoidable, the sponsor should plan and execute resettlement as a development initiative that provides displaced persons with opportunities to participate in planning and implementing resettlement activities as well as to restore and improve their livelihoods. In line with this, community consultation and participation of PAPs in resettlement preparation and planning is a fundamental requirement, it requires that the project developer facilitates the formation of a grievance redress committee consisting of the representatives of the PAPs and local councillors. One of the tasks of this Committee is to ensure the proper monitoring of compensation payments.

IFC recommends that project sponsors undertake the following actions on behalf of all affected people, including members of the host communities in which displaced people will be settled, where applicable:-

- Inform affected people of their options and rights concerning resettlement;
- Provide technically and economically feasible options for resettlement based on consultation with affected people and assessment of resettlement alternatives;
- Whether physical relocation is required or not, provide affected people with prompt and effective compensation at full replacement value for loss of assets due to project activities;
- Where physical relocation is necessary, provide assistance with relocation expenses (moving allowances, transportation, special assistance and health care for vulnerable groups);
- Where physical relocation is necessary, provide temporary housing, permanent housing sites, and resources (in cash or in kind) for the construction of permanent housing inclusive of all fees, taxes, customary tributes, and utility hook up charges or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors are at least equivalent to the advantages of the old site;
- Provide affected people with transitional financial support (such as short-term employment, subsistence support, or salary maintenance); and
- Where necessary, provide affected people with development assistance in addition to compensation for lost assets such as land preparation, agricultural inputs, and credit facilities and for training and employment opportunities.

Grievances and complaints could arise with regards to land expropriation, resettlement, activities associated with the construction project activities, social issues or any other subject related to the project. For effective implementation of the project, grievances and complaints should be redressed throughout the lifetime of the project. A grievance mechanism will be established as early as possible in the project development phase to allow the project developer to receive and address specific concerns about compensation raised by PAPs or community members in a timely fashion, including a recourse mechanism designed to resolve disputes in an impartial manner. Grievances will be addressed promptly using an understandable and transparent manner that is culturally appropriate and readily acceptable to all segments of affected communities, at no cost and without retribution. The Grievance mechanism will have a three-stage grievance redress mechanism consisting of Village Grievance Committees, the District Land Board and Courts of Law to resolve disputes and complaints arising during the project implementation, has been proposed.

Fundamental to the success of the RAP will be Resettlement Steering Committee and Project Resettlement Unit. Ultimate responsibility for overseeing the resettlement process will be vested in the resettlement steering committee, under which the project resettlement unit will be responsible for day to day implementation of the RAP.

Monitoring the RAP implementation process will be critical to assessing the effectiveness of RAP implementation process

Performance monitoring will be done internally by the management of the project in line with the project implementation schedule. The project performance milestones will include the following:

- Public meetings held;
- Grievances redress procedures in place and functioning;
- Compensation payments disbursed;
- Housing lots allocated;
- Housing and related infrastructure completed;
- Relocation of people completed;

- Livelihood restoration and development activities initiated; and
- Monitoring and evaluation reports submitted.

Performance monitoring of the RAP will be integrated into the overall project management to ensure that RAP activities are synchronised with all project implementation activities. Performance monitoring reports will be prepared at regular intervals (monthly, quarterly, semi-annually, and annually) beginning with the commencement of any activities related to resettlement.

In order to assess the lasting change or impact associated with the implementation of the RAP for the project, a completion audit will be conducted by a third party. Ideally, this will be after two years following commencement of the project.

The budget so far computed for implementation of the RAP by an external agency amounts to UGX Shillings 288,856,000 (*two hundred eighty eight million, eight hundred and fifty six thousand*) of which 254,856,000 (*Two hundred fifty four million, eight hundred and fifty six thousand*) (see Annexure 3) is the total valuation combined for land, crops, trees, buildings/development, earth graves and disturbance allowance, and 34,000,000 (*Thirty four million*) for support to Environmental and Livelihood Restoration initiatives.

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# **1 INTRODUCTION AND BACKGROUND**

## **1.1 Introduction**

Butama Hydro Electricity Company Limited proposes to set up a hydropower facility (the Sindila Mini Hydro Power Project) in Sindila Sub-county, Bundibugyo District, Western Uganda with a total capacity of 5.25MW. This facility will utilise the hydropower potential of River Sindila. The energy generated from the facility, amounting to approximately 26.6GWh per year, will be sold to the Ugandan Utility, the Uganda Electricity Transmission Company Limited (UETCL), based on a power purchase agreement the company shall enter into with the UETCL.

## **1.2 Background**

Uganda is endowed with a vast degree of energy resources (both renewable and non-renewable). Renewable energy resources include; plentiful biomass supplies, extensive hydrological resources, favourable solar energy conditions and large quantities of biomass residues from agricultural production, among others. With the exception of biomass, Uganda utilises only a small fraction of its renewable energy resource potential. Biomass, principally fuel wood and charcoal, is in quantity terms, the most utilised energy resource in Uganda. Wood fuel (firewood and charcoal) on both non-commercial and commercial basis constitutes about 93% of energy consumed in the country.

The total renewable water resources of the country are estimated at 66km<sup>3</sup>/yr, (39km<sup>3</sup>/yr internal renewable resources and 27km<sup>3</sup>/yr external), which comprise inflow from Lake Victoria (25km<sup>3</sup>/yr), as well as inflow via Lake Edward and Lake Albert from the Democratic Republic of Congo (DRC). Figure 1.1 shows the major water resources in Uganda.

The vast hydroelectric power potential however is largely under-utilised. Projections show that Uganda's electricity demand is expected to triple in the next decade assuming the current economic growth trends continue, paving way for increased investment in the country. Whilst the demand for electricity in the country is growing rapidly, electricity generation by the country's major hydropower plants cannot keep up with the increasing demand for electricity. Therefore, there is need for new sources of electricity to match the growing demand are therefore essential.

To overcome this challenge, the Government of Uganda (GoU) has taken a policy decision to encourage the private sector to develop and operate small hydropower projects (SHP). Under this policy, SHP plants can be built and operated to serve isolated mini grids operated by the developers themselves or the output of the plants can be fed into the national electricity grid owned and operated by the Uganda Electricity Transmission Company Limited (UETCL).

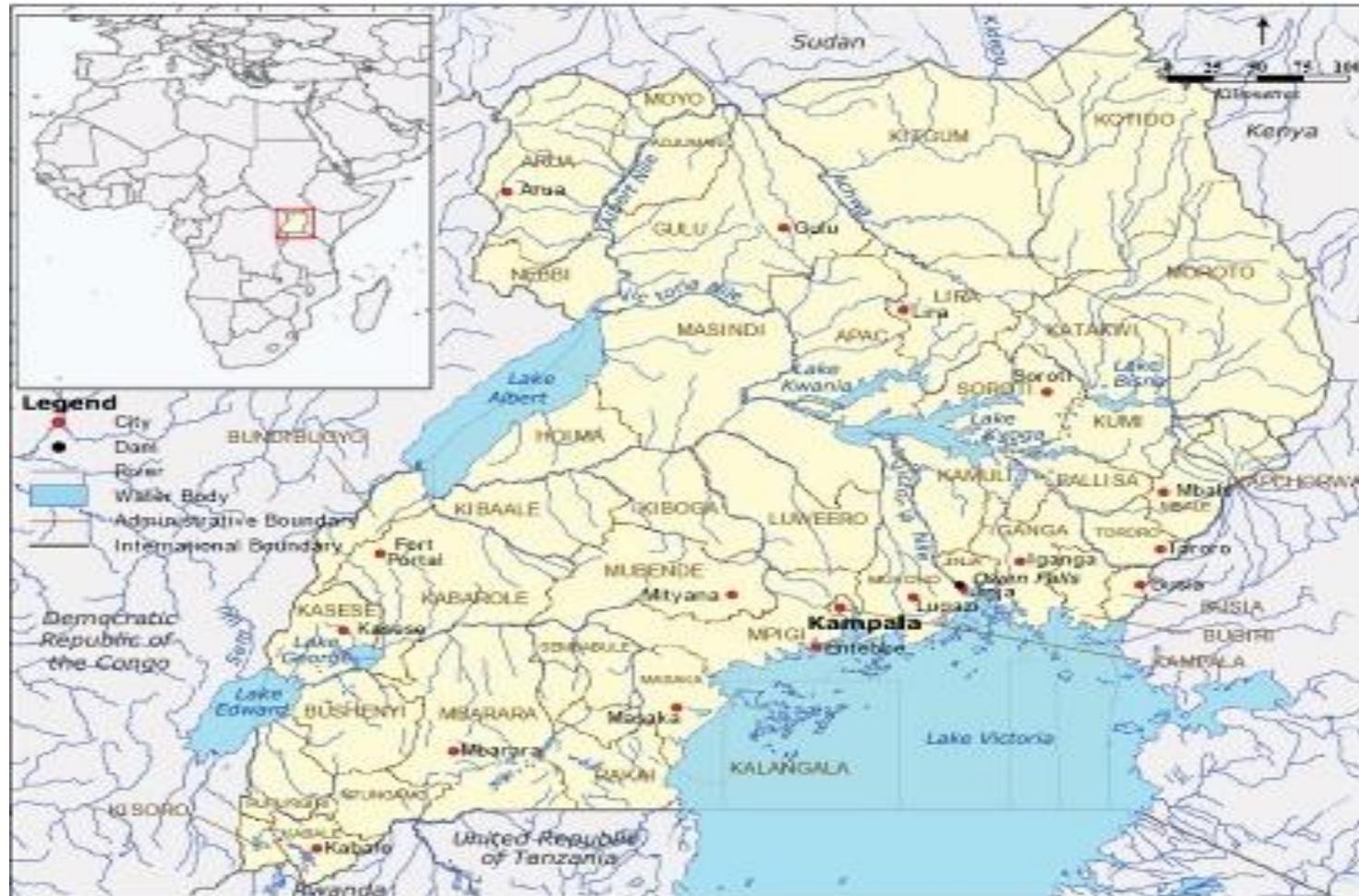


Figure 1.1 Water resources of Uganda

### 1.3 Project Description

The Sindila MHP is a proposed hydropower facility expected to generate 5.25MW of electricity with an annual energy output of 26.6GWh. This will involve harnessing the hydropower potential of the River Sindila at 63773.152 N, 833539.47E and discharging the water through a 675m long conveyance system to the forebay tank and thereafter by a 3000m long spiral welded steel penstock pipe to the powerhouse located near River Sindila in Kabwe village. After the power generation, the water will be released back into River Sindila through a tailrace channel of 25m. The distance between the abstraction and release points in the Sindila River is approximately 3.5km.

Two options for the evacuation of the power generated at by Sindila project was considered. After evaluating both options, the most technically and practically feasible option is as follows: Sindila plant to be connected with a new approximately 5.7km long 33kV 100AAAC line which is to be constructed from Sindila switchyard to a new switching station at Busunga Trading centre near the Uganda-Democratic Republic of Congo Border. Further, strengthening of Busunga-Bundibugyo existing 33kV line is also proposed. This is to be done by making this line a 200sqmm double circuit line

### 1.4 Project location

Sindila MHP is located in the middle reaches of River Sindila in the villages of Kyebumba, Ntuma and Kabwe in Bunyamwera Parish, Sindila Sub-county, Bughendera County in Bundibugyo District (See Figure 1.2 and Figure 1.3). The entire civil engineering infrastructure will be located within two LCI areas (Ntuma and Kabwe) of Sindila Sub-county: The proposed weir (63773.152 N, 833539.47E) and the headrace channel are to be located in the Ntuma village, while the forebay tank, penstock and powerhouse are to be located within Kabwe village.

### 1.5 The project

On April 01 2011, the Electricity Regulatory Authority (ERA) granted a feasibility study permit (Permit No: 2011/28) to Butama Hydro Company Ltd to evaluate the proposed Sindila MHP. The generated power from the facility, amounting to approximately 26.6GWh per year, shall be sold to the Ugandan Utility, the UETCL, based on a power purchase agreement the company shall enter into with the UETCL.

Table 1.1 indicates the proposed location of key project infrastructure and Figure 1.4 provides a simplified Project Layout.

**Table 1.1: Location of Sindila MHP key project infrastructure**

Project Component	Latitude	Longitude
Weir	833539.47E	63773.152 N
Forebay Tank	833434.94E	64368.22N
Power House	832266E	66336N
Tail water discharge point	833223.55E	66325.18N

Coordinates are in WGS84, UTM 35N

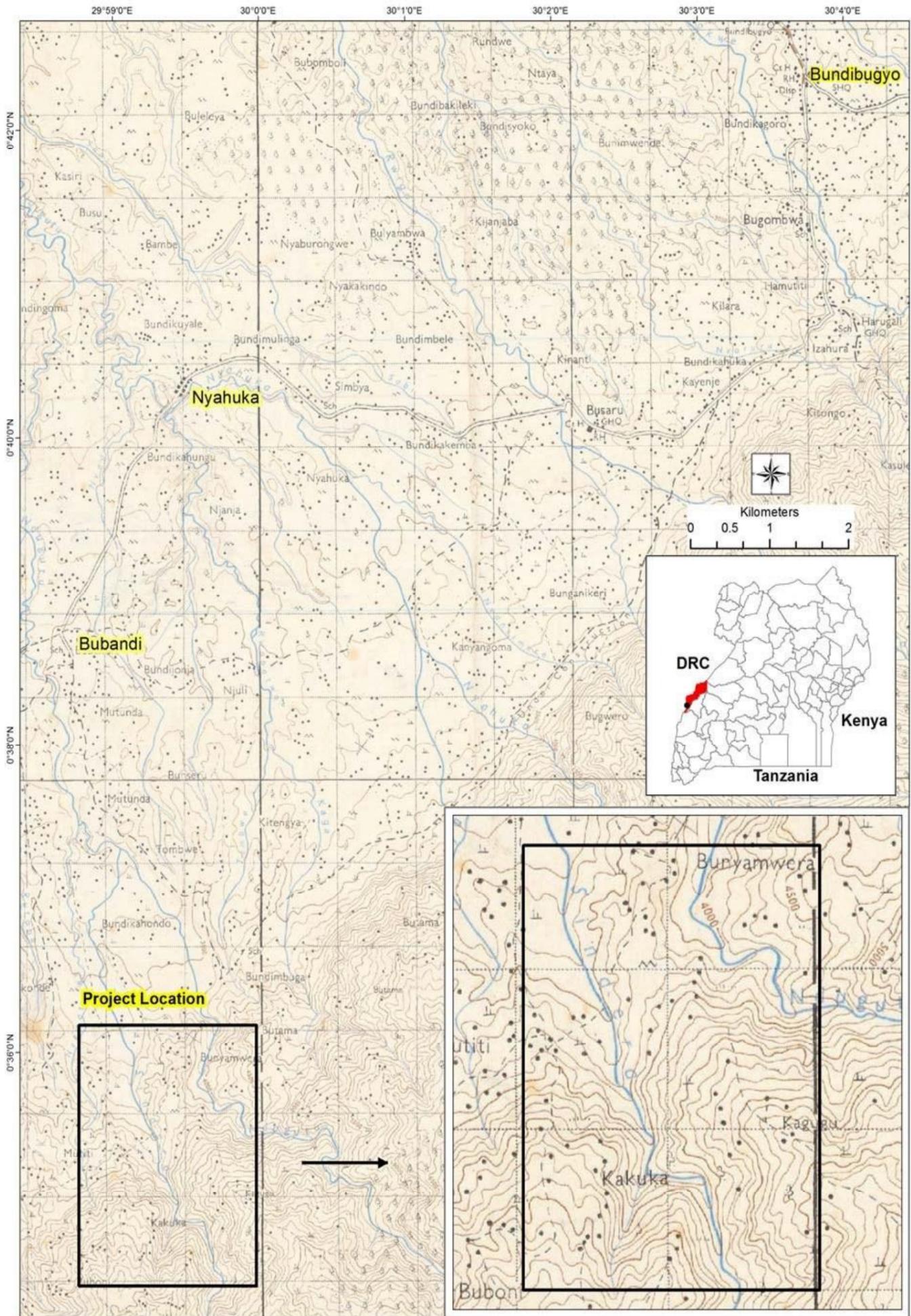


Figure 1.2 Project Location

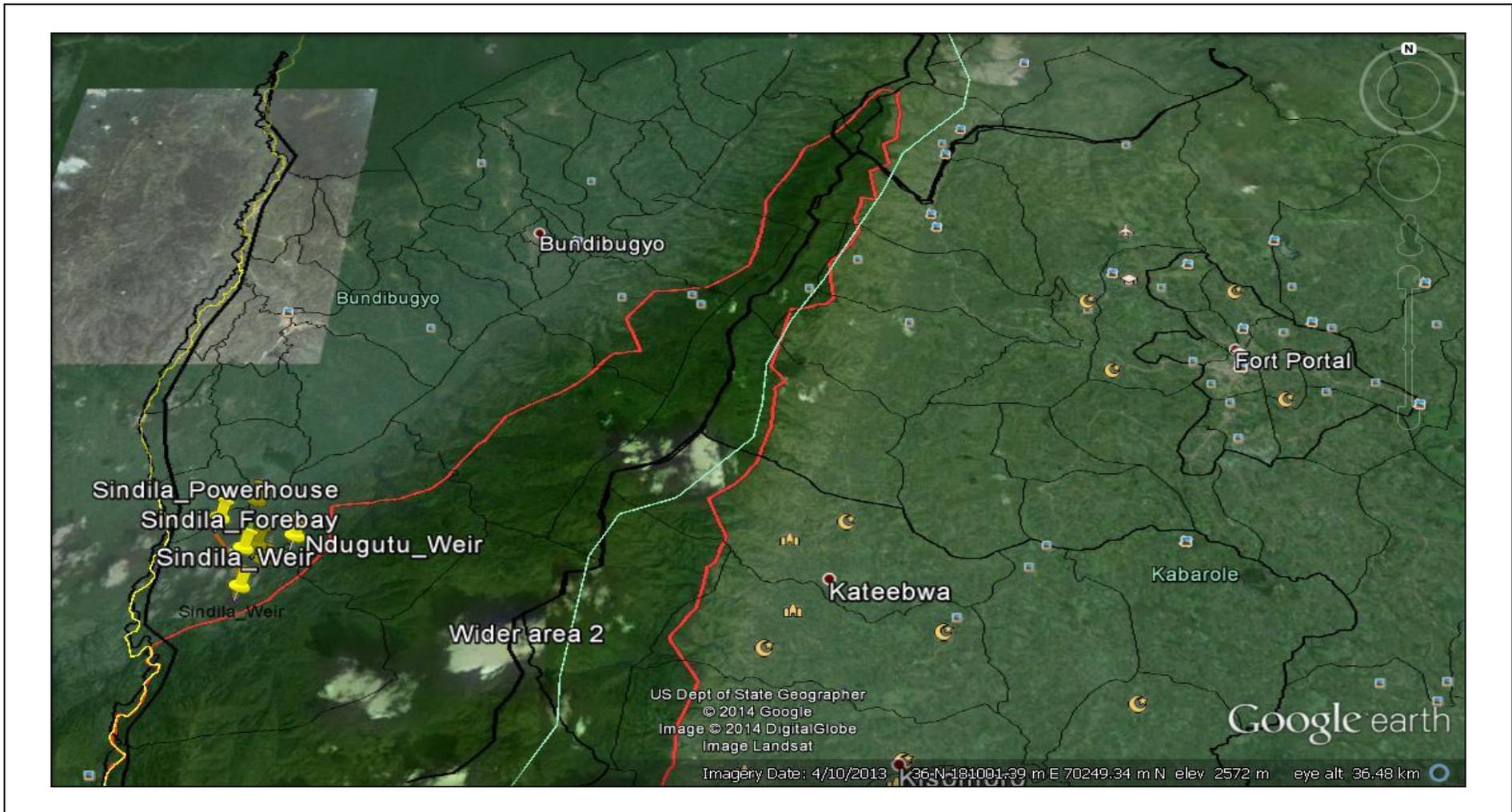


Figure 1.3 Birds eye view of the project area from a Google image

## 1.6 Project justification

Compared to other countries, Uganda's per capita energy consumption remains among the lowest despite the fact that the country has enormous potential for hydropower and other renewable energy sources. The Uganda Energy Profile published by the Uganda Investment Authority (UIA) states that, "the rate of Uganda's electrification is among the lowest in the world with limited access to grid electricity

Over the past decade, the country has suffered from unreliable power supply coupled with high tariff rates, electricity losses and low access to power despite the impressive economic growth rates that the country has enjoyed (an average of 6.5%). The Electricity Regulatory Authority (ERA) has identified lack of investment in the sector as a major contributor to the power shortages. Economists and analysts point out that Uganda's power crisis erodes about 1.5% of the country's Gross Domestic Product (GDP), (New vision, 2011).

In order to alleviate the current energy deficit, Uganda has been embarking on projects geared towards promoting investments in the energy sector. The Uganda Electricity Generation Company Limited (UEGCL), projects that Uganda requires at least 3,800MW of power supply added to the national grid by 2015. Implementation of major power projects such as the Bujagali Hydropower project and the proposed 750MW Karuma Hydropower project, will contribute immensely towards alleviating the country's energy deficit. UEGCL also has plans to boost power output through the construction of other major hydropower stations including; Ayago (600MW) and Isimba (188MW), among others.

The Ministry of Energy and Mineral Development (MEMD) has also put in place policy initiatives targeted at alternative sources of energy such as wind, geothermal, co-generation and biomass generated electricity. These policy initiatives it is hoped will attract private sector investments as well as help enhance national energy security while contributing to employment and income generation.

The proposed Sindila MHP is a renewable energy project and will result in a reduction of anthropogenic emissions of greenhouse gases by displacing an equivalent amount of electricity that would otherwise have been generated by thermal power plants that are currently used as a short-to-medium term measure to address the country's energy deficit. Based on the emission factor for Uganda's electrical power system published by the United Nations Framework Convention on Climate Change (UNFCCC), the annual emissions reduction due to the proposed project is estimated at 50,000 tonnes of carbon dioxide equivalent (CO<sub>2</sub>e) and is therefore eligible to attract carbon finance under the Clean Development Mechanism (CDM) of the Kyoto protocol for emissions reductions. The above mentioned factors largely contribute to the justification of the project when considered from the country's socio-economic transformation perspective.

## 1.7 RAP Objectives

Unless properly managed, involuntary resettlement may result in long-term hardship and impoverishment for the affected communities and persons, as well as environmental damage and adverse socio-economic impacts in areas to which the affected persons have been displaced. The following were the objectives of the RAP (also refer to concordance table in Annexure 1 that indicates how the identified gaps against the IFC PS were addressed during the RAP update):

- To identify PAPs and their property;
- To develop a valuation methodology for PAPs and their properties;
- To put in place a Resettlement Action Plan for mitigating livelihood impacts for the affected properties;
- To carryout community and stakeholder consultation with view of informing the mitigation alternatives;

The objectives of the RAP directly align with the requirements of the laws of Uganda and 2012 IFC PS 5 on Land Acquisition and Involuntary Resettlement and include the following:

- Avoid or at least minimise displacement, wherever feasible, by exploring alternative project designs.
- Avoid forced eviction.
- Mitigate the adverse social and economic impacts of land acquisition or restrictions on land use by: (i) providing compensation for loss of assets at full replacement cost and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation and the informed participation of those affected.
- To improve, or restore, the livelihoods and standards of living of displaced persons and;
- To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites.

## 1.8 Project Components

Below are the major components that will be part of the proposed Sindila MHP:-

- Weir;
- Intake structure;
- Desilting tank and Headrace Channel;
- Forebay tank;
- Penstock pipe;
- Power generation plant;
- Transmission network for the mini hydro power plant;
- Operators Quarters; and
- Access roads

### 1.8.1 Description of project components

#### 1.8.1.1 Weir and Intake Structure

As the project is a run-off-the-river type, the weir is proposed to divert water from River Sindila, which will result in the minimum storage required for regulating purposes. Orientation and the location were finalized by considering rock outcrops. The weir at the selected downstream location will have a maximum height of 2.5m and a Mass gravity type of shape in reinforced cement concrete is proposed. Given below are the basic dimensions.

#### Weir dimensions

Coordinates	63773.152 N, 833539.47E (Coordinates are in WGS84, UTM 35 N)
Type	Mass Concrete Gravity
Height	2.5m
Length	9.4m
Weir crest level	1563.5m.a.s.l

A side intake is proposed as this will minimize silt and trash entry into the headrace canal. The intake will be an open channel of reinforced concrete, and will be a 1.3m high excluding 0.2m free board - it has a curved entrance flushed with the upstream surface of weir. The weir comprises of a

silt ejector at the bottom, with dimensions of 0.5m x 0.5m. It also provides an un-gated opening for uninterrupted environmental flow release of 40Liters/second.

It is anticipated that the area that will be inundated by water as a result of constructing the weir will be minimal because the weir area is in a gorge. The ponding area will be extended by about 15m upstream along the river. The pond operating level is 1,563.3m.a.s.l and the maximum area of inundation will be 300m<sup>2</sup>. The submergence area will remain within the river banks which comprise of rocky outcrops and as such the reservoir will not significantly alter the natural environment of the river. The ponding area dimensions are given below

Length along the river	About 12.5m
Pond area	About 300m <sup>2</sup>
Pond operating level	1563.5m.a.sl

### **1.8.1.2 Headrace canal**

A headrace water diversion canal of approximately 675m in length which includes the desilting tank will be extending from the weir and will generally run along a contour to the forebay. The design flow of the project is 1.7m<sup>3</sup>/s, which would be conveyed by means of a 1.35m x 1.15m canal. The bed slope of the canal is selected as 1.8m/1000m to maintain the flow velocity at around 1.5m/s to prevent the channel wall from erosion and to economize the section.

A considerable section of the channel will be a cut and cover section in areas where the terrain is steep. The remaining length of the canal will be open (open headrace canal). This approach will minimise the geological risks associated with the channel section and minimise environmental impact as well. Locations of stream crossing points were identified for design of under passes. Few sections requiring special design considerations were identified and are summarized below.

Chainage (m)	Special feature in the location	Type of all sections
0+345-0+390	Hard, massive rock escarpment	Foundation can be placed after forming rock edge by blasting and with some anchor supports

### **1.8.1.3 De-silting tank**

The De-silting tank will be made out of Reinforced Cement Concrete with dimensions of 34m (length) x 2.75m (width) x 3.2m (depth) and will be constructed at a chainage of 1+825m. The grade of the concrete is C25 (20mm). A vertical steel gate will be installed in the de-silting tank to flush the accumulated sediments at regular intervals. The outlet will be directed back to the river through a sedimentation pit.

#### De-silting tank dimensions

Type	Open R/F Concrete Rectangular Channel
Length	34m
Width	2.75 m
Height	3.2m

### 1.8.1.4 Forebay tank and Spillway Structure

The Forebay tank is designed to maintain the minimum of 2 minute storage and avoid any air entering into the penstock pipe. The forebay tank is a reinforced concrete structure, located on the slightly sloped land at the end of the canal, and will have a de-silting section. This consists of a sloped bed for easy ejection of silt, a spillway to spill excess water and a trash rack. A Vertical steel gate is provided to flush any sediment deposited in the forebay tank. The spill way will be constructed from the forebay tank to the river through the improved and protected natural valley (dry stream) to avoid any undesirable erosion.

#### Forebay tank dimensions

Length	19m
Width	3.5m
Depth	5.5m

### 1.8.1.5 Penstock

A 3,000m long mild steel spiral welded penstock and with diameters given in table below will be used to convey water from the forebay tank to the powerhouse. The penstock will be supported by concrete anchor blocks at every bend and all the straight sections will be supported on concrete piers and the penstock will be strapped with steel straps on to these supports. The penstock will be provided with expansion suitable expansion joints and all internal and external surfaces of the steel penstock will be blasted and epoxy coated. All welded joints shall be subject to 100% Non-Destructive tests to ensure that all welded joints shall withstand working pressures plus surge pressures with a safety factor.

A vent pipe will be installed just below the bell mouth intake of the penstock. The trace of the penstock line was selected to minimise the cut and fill sections and minimise the disturbance to the slopes and existing houses and buildings.

Anchor blocks will be provided where there are change of directions in vertical / horizontal angles. However, the maximum approximate distance between anchor blocks will be 50m. These anchor blocks are designed considering allowable bearing capacity of 125kN/m<sup>2</sup>. The anchor blocks will be constructed with 20 concrete with 20% plumps in middle and C25 (20mm) structural concrete with reinforcement skin mesh on the outer surface. The support piers with RCC core will be constructed at 6m intervals along the penstock. Stainless steel Bellow type expansion joints of suitable sizes will be installed (welded) between every two anchor blocks.

The penstock line from forebay tank up to a length of 2,425m will be a single pipe of outside diameters 1.0 m and 0.9m, At this point the penstock will bifurcate in to two pipes and will be two pipes up to the power house. The dimensions of penstock pipes and the lengths are giveb in the table below.

#### Penstock dimensions

Length Along Penstock (m)	Gross Head at Section End (m)	Cumulative Length Along Penstock (m)	Pipe outer diameter (mm)	Pipe Thickness (mm)
876	104	876	1,000	10
371	147	1,247	1,000	12
365	191	1,612	1,000	14
363	235	1,975	1,000	16
450	266	2,425	900	16
175	308	2,600	800 x 2	16
100	359	2,700	700 x2	16

300	388	3,000	600 x2	16
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### **1.8.1.6 Powerhouse**

The powerhouse will be constructed on the right handside of the river bank and the approximate size of the powerhouse will be 12m x 6m. The structural components such as floor slabs and columns will be constructed using concrete. The powerhouse roof will be supported using steel frames and covered with Zinc-Aluminium sheeting materials. The powerhouse has been designed in order to be located above the high flood level of the river. The powerhouse will accommodate two horizontal axis Pelton turbine, generators, governors, electrical switch gear and panels, an area for repairs and lifting arrangements for the machinery, storage space for spares and equipment for maintenance of the civil works. The dimension and the levels of the powerhouse structure will be based on the Electrical & Mechanical equipment to be installed and will be finalised after their selection.

#### Powerhouse dimensions

GPS coordinates	66336N, 832266E (Coordinates are in WGS84, UTM 35 N)
Stories	One
Length	20m
Width	10.5m
Type of turbine	Pelton
No. of units	2
Rated speed	600 rpm

### **1.8.1.7 Tailrace canal**

A tailrace channel will be built to convey the released water from the turbines back into the river. Discharges from the turbine will be directed to a channel with a cross section of 3.0m x 4.2m and released to the river with a wider cross section. Since the power station is located closer to the river, the total length of the tailrace channel is about 25m. The basic tailrace canal dimensions Are as follows:

#### Tailrace canal dimensions

Total length	25m
Width	4.2m
Height	3.0m

### **1.8.1.8 Transmission line**

Two options for the evacuation of the power generated at by Sindila project was considered. After evaluating both options, the most technically and practically feasible option is as follows: Sindila plant to be connected with a new approximately 5.7km long 33kV 100AAAC line which is to be constructed from Sindila switchyard to a new switching station at Busunga Trading center near the Uganda-Democratic Republic of Congo Border.

## 1.9 Electro-Mechanical (EM) Plant

The EM plant will be selected based on the available head and flow, and on utilizing the maximum possible energy from the resource at minimum cost. Based on the available site parameters, the best EM plant option is two Pelton turbines coupled with vertical shaft synchronous generators.

### 1.10 Access roads

#### 1.10.1 Existing access roads

The existing community roads and foot paths connecting Butama trading centre to the proposed forebay tank and powerhouse will be improved to enable the transportation of construction materials, machinery and electro mechanical equipment to the site. The existing road from Butama trading centre to Bunyamwera trading centre will also be upgraded with a causeways across the Ndugutu River.

#### 1.10.1 Proposed project access roads

A causeway will be constructed across River Sindila to provide access to Bunyangule area. An existing footpath starting from Bunyamwera trading centre to the nursery school (833379E, 65121N) will be widened and improved. From that point to the forebay tank, an access road will be constructed to provide access to the forebay tank. A footpath starting from Butama – Bunyangule road to the proposed powerhouse will also be upgraded. All the existing footpaths and routes to be constructed traverse through home gardens, cultivated land, fallow land, among others. The land required for the proposed access roads has been identified and the ownership structure and the extent of the land have also been determined through surveys. Details of the access roads to be developed are given in the Table 1.2 below.

**Table 1.2: Details of the access roads to be upgraded**

No	Road description	Length (m)	Road type	Width (m)	Present land use
1	Access Road to Power House	1600	Concrete paved / Rubble Paved/Gravel compacted	3	Gravel Road /Foot Path
2	Access road to Fore bay Tank	1000	Concrete Paved /Gravel compacted	3	Footpath; Bare lands; Kasawa, Banana cultivated plots
<b>Total road length</b>		<b>2,600</b>			

#### 1.10.2 Proposed project access roads

A causeway across River Ndugutu will be constructed to connect the right bank (Butama Trading centre) to the left bank (location of project infrastructure).

### 1.11 Land Requirements

The total land area required for the Sindila MHP is 13.0758 acres i.e. the entire land requirement for construction of project components (Table 1.3).

**Table 1.3: Land requirement for the construction of Sindila MHP**

Project component	Total acres of land	Village	Parish	Sub county
Access to power house.	0.6121	Kyebumba II	Nkuranga	Sindila
Power house	0.3386	Kyebumba II	Nkuranga	Sindila
Penstock	1.1429	Musalawu	Nkuranga	Sindila
Penstock access	1.0564	Bunyamwera/ Kabwe	Bunyamwera	Sindila
Penstock access/penstock	0.5095	Kabwe and Bunyamwera	Bunyamwera	Sindila
Forebay tank access	2.3942	Kabwe	Bunyamwera	Sindila
Penstock/forebay tank	0.5414	Bunyamwera/Kaghughu/ Ntuma	Bunyamwera	Sindila
Forebay tank	0.1433	Ntuma	Bunyamwera	Sindila
Canal	5.3384	Ntuma	Numyamwera	Sindila
Penstock access	0.5090	Kabwe/Bunyamwera	Bunyamwera	Sindila
Spill way	0.4900	Ntuma/Kabwe	Bunyamwera	Sindila
<b>Total</b>	<b>13.0758</b>			

### 1.12 Evidence that resettlement has been avoided

One of the objectives of OP 4.12 and PS 5 is to avoid land acquisition that results in physical and / or economic displacement and resettlement. However, where such displacement and resettlement is unavoidable, that is where suitable alternative project sites are not available, or the cost of developing those sites is prohibitive, OP 4.12 and PS 5 require that adverse resettlement impacts on affected individuals and communities are minimised through sensitive project design and adjustments in the siting of project facilities.

In order to minimize resettlement for the Sindila MHP as much as possible, several measures were taken at the planning stage as follows. During the initial engineering survey, attempt was made by the project developer to avoid as many houses as possible so that only a bare minimum number of houses were to be physical displaced. The Sindila MHP has only one site project option because the area has a lower population density which reduces on the direct or negative impacts of the physical resettlement to the affected communities. However along the penstock, powerhouse and access road there are some households which will be physically displaced. This is because these households may not be able to continue using or occupying their land and/or structures during and after the project construction, due to the fact that some of the project components are too close to these households or acquiring only part of a land parcel or structure, would be inappropriate because the remainder of the land will be of no practical use to the household.

## **2 APPROACH AND METHODOLOGY**

In order to adequately collect socio-economic baseline information pertaining to the project area, both qualitative and quantitative methods were used. The various methodologies and approaches are discussed below.

### **2.1 Literature review**

Relevant literature was reviewed before and during the socio-economic survey, including but not limited to the ESIA Report of Sindila MHP (2013) as updated in September 2014; Bundibugyo District Compensation rates; Sindila Sub-county Development Plan; the Uganda Land Act 1998 (as amended in 2010); the Land Acquisition Act Cap 226; IFC Performance Standards; Renewable Energy Policy for Uganda, and other documents that were deemed to be of importance to the project.

### **2.2 Stakeholder mapping**

A stakeholder mapping exercise was undertaken to identify Interested and Affected Parties (I&AP) to the project. The mapping exercise was conducted simultaneously with the scoping exercise for the ESIA. The exercise identified all the stakeholders in the area including the communities around the area, administration, academia and private sector players among other stakeholders. Key elements of the stakeholder mapping were to ascertain the degree of 'impact' as well as 'influence' of the respective stakeholders.

### **2.3 Household surveys**

Household surveys were undertaken to identify the characteristics of the potentially affected population ensuring that all the different categories and groups of people to be affected by the proposed project are captured and consulted in as much as possible.

The main purpose of the household surveys was to collect information to generate a baseline against which mitigation measures and support will be measured. The household surveys also involved, a comprehensive study of people's assets, incomes, livelihood activities and welfare indicators.

### **2.4 Valuation of property and assets**

Before valuing the potentially affected property, impact on PAP's livelihoods, and determining the required compensation, the size of land needed by the project was first defined. This was done in liaison with the Surveyor working closely with the Valuer.

Project affected land was determined as, "*land affected by the development of the proposed Sindila MHP which in this case falls into the following categories:*

- Temporary land needs for construction purposes; and
- Permanent land acquisition.

All the properties likely to be affected by the proposed Sindila MHP were valued based on acceptable standards – see approaches discussed below. In particular, valuation of crops and temporary structures was based on Bundibugyo District rates.

Approach No. 1, the Depreciated Replacement Cost Approach (Cost Approach), is based on the net replacement cost of constructing similar structures in the same location. The net replacement cost is arrived at by calculating the present day reinstatement cost less depreciation for age, functional obsolescence and conditional dilapidations. The "As Is" Market Value under Approach No. 1 therefore is the sum of the open market value for land and the net replacement cost of the

developments. The compensation value payable following this approach is a sum of the “As Is” Market Value and a Disturbance Allowance of 30%.

Approach No.2, the Income Capitalisation Approach is based on capitalisation of the net annual income from the properties over the unexpired terms of their leases. The resultant figure is the “As Is” Market Value under Approach No. 2. The compensation value payable following this approach is a sum of the “As Is” Market Value and a Disturbance Allowance of 30%.

## **2.5 Census**

Using a profile of the affected property and owners derived from the valuation lists, a census of affected PAPs was undertaken and the total number of PAPs - households and household members, was determined from the census data.

The census of the affected PAPs covered their background information/household size, livelihood patterns, welfare patterns, accessibility to social services, income and expenditure patterns, social integration levels, cultural considerations, compensation option preferences, among other issues.

## **2.6 Land Survey**

Following the completion of the initial phase of community mobilisation and sensitisation by the socio-economic survey team, the land survey team implemented the relevant survey activities as indicated below.

- Extending reliable control points to the project sites using survey grade GPS equipment and predetermined coordinates to indicate the agreed project site(s) and access road(s);
- Pegs were used to visually indicate the extent of, and to mark the various interests in land;
- Land to be acquired was identified by the survey team together with the land owners and local council leaders. Land ownership was first verified from existing documents and through consultation with neighbours and local leaders where applicable, before it was recorded;
- Boundary opening of the surveyed plots was done in accordance with the cadastral plans from the Bundibugyo District Land Offices;
- An assessment form was developed by the survey team for purposes of recording and confirming the affected property and witnessed by the area local council chairperson, the property owner and field surveyor.

## **2.7 Public consultation and disclosure**

A public consultation and disclosure meeting will be held to find out whether any of the affected PAPs has pre-existing private claims to the affected properties. A good practice is to have the initial information campaign describe and justify the project, explain why resettlement is necessary, provide a preliminary assessment of its impacts, and disclose the fundamental principles on which the resettlement program will be designed, the procedures for assessing compensation, and the timetable for any displacement and relocation.

### **3 POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK**

The main aspect to consider in land acquisition, resettlement implementation and management, is the appropriate legal, policy and institutional framework to cater for land acquisition, compensation, relocation, income restoration and livelihoods restoration programs. This Chapter therefore summarises the relevant policy, legal, institutional and administrative frameworks in which the proposed Sindila MHP will operate.

#### **3.1 Policy framework**

##### **3.1.1 National (Ugandan) Policies**

Although the proposed project does trigger a number of policy aspects by virtue of the numerous activities attributed with the project, the National Land Policy (2013) is the one that is considered to be of prime importance in as far as the project is concerned. Section 87 of the policy states that: the government shall ensure that the acquisition of land for investment purposes is in accordance with the following:

- National development objectives;
- Established laws and procedures; and
- Appropriate evaluation, due process and due diligence.

The proposed Sindila MHP is in line with the national development objectives of Uganda which among others is to increase generation and distribution of electricity in order spur socio-economic transformation within the country.

It's worth noting that in addition to the afore-mentioned policies, Uganda is a signatory to a number of International conventions, treaties and other related guidelines such as recognises the World Bank Operation Policy OP 4.12 (2002) on involuntary resettlement (see Section 3.1.2 below). It's worth noting that Uganda does not have a National Resettlement Policy.

##### **3.1.2 World Bank Safeguard Policies**

OP4.12 Involuntary Resettlement is the safeguard policy that provides basis on which the World Bank screens proposed projects to determine the appropriate extent and type of RAP to be prepared and implemented.

##### **O.P. 4.12 Involuntary Resettlement**

This project triggers this policy due to land take and land use change impacts. OP 4.12 is triggered because the construction of the Sindila MHP will result in the acquisition of land and therefore the PAPs will lose both social and economic assets. The Policy describes the details and elements that a resettlement plan should include. These include objectives, potential impacts, socio economic studies, legal and institutional framework, eligibility, valuation and compensation for losses, resettlement measures, relocation planning, community participation, and grievance redress procedures, implementation schedule, costs and budgets, and monitoring and evaluation. This report conforms to the WB policy requirement on contents and structure. The following are sections that are relevant to the Sindila MHP.

WB OP 4.12.(6a) requires institution of measures to ensure that displaced persons are (i) informed about their options and rights, (ii) consulted on, offered choices and provided with technically and economically feasible resettlement alternatives, and (iii) provided prompt and effective compensation at full replacement costs. The main objective is to ensure livelihood restoration to

pre-project level or at most improvement of the same. This RAP report outlines the processes that have been followed to ensure PAPs are adequately compensated and resettled.

WB OP 4.12 (8) requires that particular attention be paid to the needs of vulnerable groups among those displaced such as those below the poverty line, landless, elderly; women and children and indigenous peoples and ethnic minorities. Special attention has been given to the vulnerable groups to deal with issues concerning them by identifying and counselling through home visits.

WB.OP 4.12 (13 a) stipulates that any displaced persons and their communities and any host communities receiving them should be provided with timely and relevant information, consulted on resettlement options and offered opportunities to participate in planning, implementing and monitoring resettlement. For Sindila MHP six (6) housing units built with mud and wattle with either iron sheet or grass thatched roofs shall be physically displaced and resettled within the same community as results of project activities.

WB OP 4.12 (12 a) states that payment of cash compensation for lost assets may be appropriate where livelihoods are land-based. For Sindila MHP all affected PAPs will be compensated for all of their lost assets and economic activities because their livelihoods are land-based.

WB OP 4.12 (6 b & c) state that in case of physical relocation, displaced persons are provided with; assistance (such as moving allowances) during relocation; and residential housing, or housing sites, or as required, agricultural sites for which a combination of productive potential, location advantage, and other factors are equivalent to the advantages of the old site 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, development assistance in addition to compensation measures such as land preparation, credit facilities, training and job opportunities.

For Sindila MHP to comply with this policy, the above measures should be followed during the implementation of the project.

WB OP 4.12 (13 a) requires that appropriate and accessible grievance mechanisms are established to sort out any issues arising. A grievance committee has already been established to handle any grievances that may arise during the implementation of the proposed Sindila MHP.

WB OP 4.12 (15 a, b, & c) categorises PAPs eligible for resettlement into three, namely; those who have formal legal rights to land (including customary and traditional rights recognised under the laws of the country), those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets, provided that such claims are recognised under the laws of the country or become recognised through a process identified in the resettlement plan, and those who have no recognisable legal right or claim to the land they are occupying.

WB OP 4.12 (16) states that persons who encroach on the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance. These provisions will be relevant in mitigating adverse socio-economic impacts including the acquisition of land and the assets on it, associated with the proposed Sindila MHP.

### **3.2 Legal framework**

There are a number of legislative and regulatory instruments in Uganda that are pertinent to the proposed project and its activities. These are outlined below and include the following:

- The Constitution of the Republic of Uganda, 1995;
- The Electricity Act, Cap 145;
- The Land Act 1998 (as amended in 2010)
- The Historical and Monuments Act, 1967;

- The Water Act, Cap 152;
- The Roads Act (1964).
- The Land Acquisition Act, Cap 226;
- The Local Governments Act, Cap 243;
- The National Physical Planning Act 2010; and
- The National Environment Act, Cap 153.

### **3.2.1 The Constitution of the Republic of Uganda, 1995**

The 1995 Constitution restored all private land tenure regimes (which had previously been abolished under the Land Reform Decree – 1975), 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. These are listed as customary, freehold, mailo and leasehold. It also creates for the government and local authorities a statutory power of compulsory acquisition of land in the public interest, and makes provision; inter alia, for the “prompt payment of fair and adequate compensation” prior to the taking of possession of the property.

### **3.2.2 The Electricity Act, Cap 145**

Section 68 of the Electricity Act, Cap 145 outlines procedures and conduct of the licensee during placement and maintenance of any electricity supply lines in, over or upon any land. Subsection (3) requires the licensee to make as little damage as possible to land and to the environment and should ensure prompt payment of fair and adequate compensation to all interested persons for any damage or loss sustained by the placement and maintenance of any electricity supply lines in, over or upon any land. The Act gives adequate guidelines for the conduct of a licensee and recognises the need to make good any damage and notice to those who may be affected by the project activities.

### **3.2.3 The Land Act 1998 (as amended in 2010)**

Section 2 of the Act re-echoes the provisions of article 237(1) of the constitution which vest all land in Uganda with the citizens of Uganda. In addition section 42 of the Act empowers Government and local governments to acquire land for public interest whilst section 77 deals with matters to do with computation of any due compensation.

### **3.2.4 Historical and Monument Act, 1967**

The existing law relating to archaeological sites in Uganda is the Historical and Monuments Act, 1967, which the Commissioner for Antiquities and Museums has currently placed under review.

The Act provides for the preservation and protection of historical monuments and objects of archaeological, paleontological, ethnographical, and traditional interest. Under this Act, the line minister may cause any of the aforesaid objects to be declared as preserved objects.

The Act prohibits any person from carrying out activities on or in relation to any object declared to be preserved or protected. Section 10 of this Act spells out the procedures and requirements to declare and inspect newly discovered sites that may have archaeological, paleontological, ethnographical, historical and traditional significance for purposes of protection.

Whereas there were no sites of archaeological, paleontological, ethnographical, historical and traditional significance identified within the proposed hydropower site, chance findings may be encountered. The developer is urged to exercise due diligence where historical property is discovered in any way during construction of the proposed project and other related activities. In this

respect, a physical-cultural specialist should be on site to monitor excavation for the water channel (Canal) and other related hydropower plant structures.

### **3.2.5 Water Act, Cap 152**

This is an Act to provide for the use, protection and management of water resources and supply; to provide for the constitution of water and sewerage authorities; and to facilitate the devolution of water supply and sewerage undertakings.

One of its objectives relevant to the proposed project is “to allow for the orderly development and use of water resources for purposes other than domestic use, such as the watering of stock, irrigation and agriculture, industrial, commercial and mining uses, the generation of hydroelectric or geothermal energy, navigation, fishing, preservation of flora and fauna and recreation in ways which minimise harmful effects to the environment.”

As stipulated in Section 18, no person shall construct or operate any works unless authorised to do so, in accordance with the Act. A person wishing to construct any works or to take and use water may apply to the Director in the prescribed form for a permit to do so. This section further provides for conditions under which the permit may be granted. According to subsection (5) (c), the director may grant the permit on conditions that he or she may think fit; and the conditions may require the person to whom the permit is granted, to compensate the affected person(s).

Section 20 has provisions for the standard conditions under which a holder of a permit should use a water resource. A holder of a permit issued under this provision of the Act shall:

- Not cause or allow any water to be polluted;
- Prevent damage to the source from which water is taken or to which water is discharged after use;
- Take precautions to ensure that no activities on the land where water is used result in the accumulation of any substance which may render water less fit for the purpose for which it may be reasonably used;
- Observe conditions prescribed by Regulations made under this Act; and
- Observe any special condition that may be attached to the permit.

### **3.2.6 The Roads Act 1965**

The 1965 Roads Act defines the Right of Way for a road as the area of no more than 50 feet from the centre line of the road. This area is declared as the road reserve. The Act also states that no person may build any structure, or plant any tree, plant or crop in the road reserve. The road authorities are allowed to take materials and/or dig within the road for the construction and maintenance of the road. An access road will have to be constructed leading to and from certain project infrastructure and equally a Right of Way will be required for the transmission lines that will be evacuating power that is generated by the project.

### **3.2.7 The Land Acquisition Act, Cap 226**

The Act makes provision for the compulsory acquisition of land for public purposes and other related matters.

It makes provision for the procedures and method of compulsory acquisition of land for public purposes whether for temporary or permanent use.

The Minister responsible for land may authorise any person to enter upon the land and survey the land, dig or bore the subsoil or any other thing necessary for ascertaining whether the land is suitable for a public purpose.

The Government of Uganda is supposed to pay compensation to any person who suffers damage as a result of any action.

Any dispute as to the compensation payable is to be referred to the Attorney General or court for decision.

### **3.2.8 The Physical Planning Act, 2010**

The Act provides for establishment of among other sectors, the district and urban physical planning committees to provide for the making and approval of physical development plans and for the application of development permissions and related matters. Section 11 of the Act establishes the urban planning committee whose functions are to determine development applications relating to industrial location

### **3.2.9 The Local Governments Act, Cap 243**

The Act provides for the decentralised governance and devolution of Central Government functions, powers and services to Local Governments that have their own political and administrative set-ups.

Under section 9, the Local Government Councils shall be the highest political authority within their area of jurisdiction of a Local Government and shall have legislative and executive powers to be exercised in accordance with the Constitution and this Act.

The Local Governments are responsible for the protection of the environment at the district level; this therefore implies that local governments shall be consulted on projects located within their jurisdiction and on matters that affect the environment

## **3.3 Gap analysis**

In order to ensure that the RAP for the proposed Sindila MHP meets the environmental and social policies and the World Bank Policy on Involuntary resettlement, a gap analysis was carried out on the relevant Ugandan and development partner policies, legislations and guidelines. Some of the key points to note are that:

- Under the Ugandan laws, the project affected persons are compensated, and affected persons are only eligible for compensation if they have legally recognised rights to the said land, although the World Bank requires that all affected persons should be compensated, regardless of their occupancy status;
- World Bank policy provides for alternative land where compensation is on a land for land basis, compensation in kind, and goes beyond monetary compensation by specifying that income must be restored at full replacement cost;
- Under Ugandan laws, the default position is to pay cash compensation rather than prioritise in-kind provisions;
- Under Ugandan laws, there is no requirement for the provision of supplementary assistance for vulnerable individuals and groups;
- Under Ugandan laws, there is no requirement for livelihood restoration / improvement and managing resettlement as a development initiative; and
- In addition, perennial crops must be compensated for in cash at an established rate and annual crops shall be compensated in accordance to World Bank safeguard policy OP4.12.

Table 3.1 below provides a comparison of relevant Ugandan policies and regulations with those of the World Bank, and how the gaps have been addressed in this RAP. Since these requirements stipulate adoption of the more beneficial measures for the PAPs, the strategies Butama Hydro-Electricity Company Limited will use to make the project meet these needs have been included.

The World Bank Group requirements are more favourable to PAPs than the Ugandan Laws. Where there is discrepancy, the World Bank requirements will take precedence. To bridge the gap, uplift will be used to make compensation comply with the World Bank requirements.

**Table 3.1: Comparison of Laws of Uganda and WB/IFC requirements regarding compensation**

<b>Category of PAPs/Type of lost assets</b>	<b>Provision under Uganda Laws</b>	<b>WB/IFC Requirements</b>	<b>Mitigation</b>
Land Owners	Cash compensation based on market value of land and disturbance allowance of 15% if notice to vacate the land is more than 6 months and 30% if notice to quit is less than 6 months	Strongly recommend land-for-land compensation. Other Compensation is at replacement cost.	A number of compensation options have been adopted in this project. For those PAPs that are vulnerable, the land for land and cash compensation alternatives have been chosen.
Customary Tenants	Entitled to compensation based on the market value of land apportioned plus disturbance allowance of either 15% or 30%	Must be compensated whatever the legal recognition of their occupancy.	All affected PAPS will be compensated
Owners of non-permanent buildings	Cash compensation based on replacement cost as determined under the District Compensation Rates plus disturbance allowance of 15% if notice to vacate is more than 6 months and 30% if notice to vacate is less than 6 months.	Recommend in-kind compensation or cash compensation at full replacement cost including labour.	All non-permanent structures affected will be compensated.
Owners of permanent buildings	Cash compensation based on market value (current replacement cost) plus a disturbance allowance of 15% if notice to vacate is more than 6 months and 30% if notice to vacate is less than 6 months.	Recommend in-kind compensation or cash compensation at full replacement cost including labour.	Based on preference of project affected household.
Perennial Crops	Cash compensation based upon District Compensation Rates plus a disturbance allowance of 15% or 30%. Rates are calculated based on a net or an expected one season output. Where possible, the claimant or affected person should be allowed time to harvest crops that are due for harvesting.	Requirements not specified	Cash compensation
Annual Crops	No Compensation, 6 months' notice to harvest crops.	No specific provision. Land for land compensation allows people to re-establish annual crops immediately.	Cash compensation where necessary
Business Income	No compensation, six months' notice to vacate premises.	Establish access to similar opportunities.	Lost income will be compensated for by way of disturbance allowance.

### **3.4 Institutional framework**

There are a number of institutions with vested interests in the proposed project by virtue of activities that are likely to be associated with the project. The institutions entail entities at various levels of Government including Central and Local Governments, and some Non-Government actors, among others. Some of the key ones are discussed below.

#### **3.4.1 Ministry of Lands, Housing and Urban Development**

This is the line ministry for the office of the Chief Government Valuer (CGV). The offices of the Chief Government Valuer (CGV) in conjunction with the District Land Boards of Bundibugyo Districts provided approved updated compensation rates used for calculations of compensations. Furthermore, the office of the Chief Government Valuer (CGV) shall be responsible for authenticating and approving the final Valuation report which is to be used as a basis for compensating PAPs. Additionally, the Department of Lands under the Directorate of Lands, shall liaise with the District Land Boards (DLB) in the registration and transfers of land.

#### **3.4.2 Ministry of Gender, Labour and Social Development**

The Ministry through its Directorate of Labour (which is responsible for administering the Occupational Safety and Health Act, 2006) carries out regular statutory inspections to ensure health and safety in the work place, including hydro power activities. The Ministry of Gender, Labour and Social Development has responsibilities for the social and economic welfare of the population including cultural affairs, youth, labour and disadvantaged groups. The Ministry has a Directorate of Labour which oversees matters to do with Occupation Safety and Health and well as other industrial relation relate matter. The project will be expected to comply with the respective legal and regulatory provisions prescribed by the Directorate and Ministry at large.

#### **3.4.3 Ministry of Energy and Mineral Development**

The Ministry of Energy and Mineral Development is responsible for establishing policies, regulations and strategies to promote the rational and sustainable exploitation and utilisation of energy and mineral resources for social and economic development. The key roles and functions of MEMD in the development of the Sindila MHP are:

To acquire, process and interpret technical data in order to establish the energy and mineral resource potential of the country;

To create an enabling environment in order to attract investment in the development, provision and utilisation of energy and mineral resources;

#### **3.4.4 Ministry of Water and Environment**

The Ministry of Water and Environment (MWE) has the responsibility for setting national policies and standards, managing and regulating water resources and determining priorities for water development and management. It also monitors and evaluates sector development programmes to keep track of their performance, efficiency and effectiveness in service delivery. MWE has three directorates: Directorate of water Resources Management (DWRM), Directorate of Water Development (DWD) and the Directorate of Environment Affairs. The mandate of the MWE regarding sanitation and hygiene activities is stipulated in the Memorandum of Understanding that was signed by Ministry of Health, Ministry of Education and Sports, and MWE. The role of MWE is limited to development of public sanitary facilities

and promotion of good practices of hygiene and sanitation in small towns and rural growth centres. With respect to water for production, MWE is the lead agency for water for production and development off-farm.

Under the MWE, Butama Hydro-Electricity Company Ltd will be dealing mainly with the Directorate of Water Resources Management (DWRM) which is responsible for developing and maintaining national water laws, policies and regulations; managing, monitoring and regulation of water resources through issuing water use, abstraction and wastewater discharge permits; Integrated Water Resources Management (IWRM) activities; coordinating Uganda's participation in joint management of trans boundary water resources and peaceful cooperation with Nile Basin riparian countries. The directorate comprises three departments namely Department of Water Resources Monitoring and Assessments, Department of Water Resources Regulation and Department of Water Quality Management.

#### **3.4.5 Uganda Electricity Generation Company Limited (UEGCL)**

UEGCL is a public limited liability company that was incorporated on the 26th March and started operations on the 1<sup>st</sup> of April of 2001. Its mission is to efficiently generate electricity, effectively monitor electricity generation concessions and trade in bulk quality, safe and reliable power at competitive rates in a sustainable manner for accelerating economic development. Butama Hydro-Electricity Company Limited will, where necessary, liaise with UEGCL successful generation of power.

#### **3.4.6 Electricity Regulatory Authority (ERA)**

The Electricity Act provides for the establishment of Electricity Regulatory Authority and provides for its functions, powers and administration. Section 10 of the Act stipulates the functions of ERA which include issuing of licenses for the generation, transmission, distribution or sale of electricity; and ownership or operation of transmission systems among others. The Act establishes ERA as the main regulator on matters pertinent to generation, transmission and or distribution of electricity in Uganda.

#### **3.4.7 National Environment Management Authority**

The National Environment Management Authority (NEMA) is the lead agency tasked with monitoring, supervision and coordinating environment management related matters in the country. It will have the responsibility for assessing and monitoring compliance of the proposed project with the environmental and social requirements attributed to the project including those prescribed in the Resettlement Action Plan. Assessment and compliance monitoring may be done through the District Environment Officer of Bundibugyo District or directly through NEMA's Environmental Inspectors.

#### **3.4.8 Directorate of Water Resources Management**

Directorate of Water Resources Management has the mandate to “promote and ensure rational and sustainable utilisation, effective management and safeguard of water for social and economic welfare and development as well as for regional and international peace”. It is responsible for managing, monitoring and regulation of water resources through issuing water use, abstraction and waste water discharge permits.

#### **3.4.9 Bundibugyo District Local Government**

The Land Act, states that land tribunals must be established at district level. It also empowers the District Land Tribunals to address disputes relating to the amount of compensation to be

paid for land acquired on a compulsory basis. The Local Governments will primarily review the progress of the land acquisition and resettlement implementation and make decisions regarding actions to solve the problems and designate officers to carry out these actions. The Local Governments also assist with the resettlement process through the organs described below.

#### **3.4.10 Bundibuygo District Land Board**

The District Land Boards (DLBs) facilitate the registration and transfer of land ownership. In addition, DLBs compile and maintain a list of compensation rates payable in respect of crops, buildings of a non-permanent nature and any other thing that may be prescribed. Furthermore, the DLBs review the lists of compensation rates annually.

#### **3.4.11 Bundibugyo District Land Tribunals**

The District Land Tribunal (DLT) decides on disputes regarding compensation paid for land acquired. It is also charged with solving disputes relating to the grant, lease, repossession, transfer or acquisition of land by individuals and organisations. This will be helpful in resolving matters that cannot be solved at village level.

#### **3.4.12 The Village Committees**

Village committees manage and deal with resettlement issues at village level. The committees will be responsible for the coordination and monitoring of the land acquisition and resettlement activities. They will also assist in;

- The resolution of grievances concerning land acquisition, compensation and resettlement operation;
- Ensuring adequate replacement of land for the PAPs;
- Planning and implementation of income generating and poverty reduction program and community participation;
- Involving vulnerable groups in the planning and implementation of resettlement; and
- The review of the results of resettlement and income restoration.

#### **3.4.13 Non Governmental Organisations**

One of the important means of income restoration in the project-affected area is to supporting local investments and development activities. This generally needs preparation of documents to get support and participation of various groups. The leadership, guidance, and participation of local NGOs are very important. The NGOs would be instrumental in providing training for project preparation and development. Furthermore, capable NGOs can provide consulting services to the PAPs on legal and grievance redress issues throughout the project implementation.

## **4 SOCIAL AND ECONOMIC BASELINE**

Bundibugyo District is located in the western region of Uganda. The District is bordered by the districts of Kibale to the Northeast, Kabarole to the East and Southeast and by the Democratic Republic of Congo (DRC) to the west. To the north, it shares a boundary with Ntoroko district. The District covers a total area of 2,338 km<sup>2</sup>. Of this area, open waters, swamps and rivers, cover 570 km<sup>2</sup> while 1,243 km<sup>2</sup> is covered by mountains, forests, National parks (Semuliki and Mt. Rwenzori) and forest reserves. 145 km<sup>2</sup> is covered by Game reserves and 380 km<sup>2</sup> is used for Agriculture.

The proposed project's area of influence (PAI) is defined to include the villages of Ntuma (where the weir and the headrace canal will be located) and Kabwe (where the forebay, penstock, and powerhouse are to be located) in Bunyamwera Parish and also the villages of Mutiti, Kakuka, Buboni and Bihya in Kakuka Parish (located on the left bank of the Sindila river) where people depend on the river as their main source of water. All the villages are located in the Sindila Sub-county.

### **4.1 Administrative structure**

As with other districts in the country, Bundibugyo is divided into administrative zones - two counties, Bwamba and Bughendera, and thirteen sub-counties, one town council and one town board. At the lower levels, there are 83 parishes with 559 villages.

The leadership structure of the district also consists of several levels; with the Local Council (L.C) V at district level, L.C.IV at county level, L.CIII at sub-county level, L.CII at parish level and L.CI at village level. The technical aspects are handled by different departments at the district and sub-counties headed by professionals in the respective fields (Bundibugyo District Local Government, 2011).

Sindila sub-county was created in 2009 by curving out a section from the Ndugutu sub-county. The sub-county is located approximately 25km from the District Capital Bundibugyo and is about 70km<sup>2</sup> in extent. The sub-county is made up of 35 villages and 5 parishes. The eastern part of the sub-county is very mountainous with steep terrain and River Sindila is the main water way that runs through the sub-county and, is the primary water source for the majority of the people living in the sub-county.

The administrative boundaries of the proposed project area are shown in Figure 4.1.

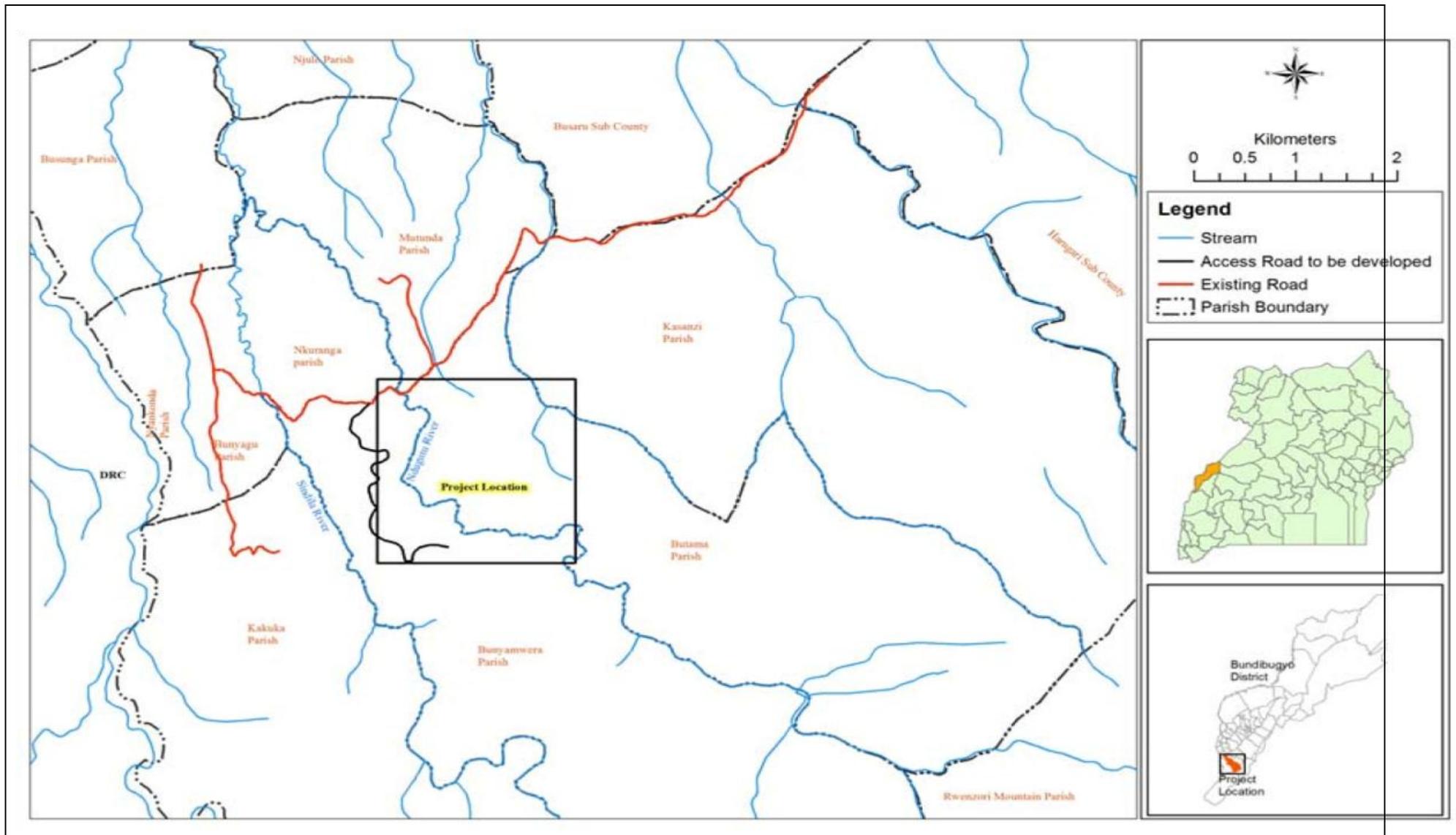


Figure 4.1: Administrative Boundaries of the Project Area

## 4.2 Transportation

The PAI is linked via the Bundibugyo – Lamia road through a district feeder road traversing through Bubandi to Ndugutu and Sindila Sub-counties. Within Sindila Sub-County, several community access roads exist (Table 4.1).

**Table 4.1: Community access roads within Ndugutu and Sindila Sub Counties**

Road Name	Location/Sub-county	Length (km)
Bunyangule – Butama	Ndugutu – Sindila	7.0
Nyankonda - Busunga	Sindila – Bubandi	6.0
Kaghughu - Bunyangule	Sindila	5.0
Bunyangule – Kyebumba-Mutiti	Sindila	4.0

The major aim for establishing community roads in villages is to link the communities living on the mountain slopes with those in the low lands, and to extend social services such as education, health, and administration to communities within the mountainous terrain.

Within the PAI, there is only one motorable track 1.5km in length linking Kaghughu primary school to Butama trading centre (off the Bunyangule – Butama access road as presented in Table 4.1 above). Majority of the people within the PAI however walk along footpaths over the hilly terrain (Plate 4.1).



**Plate 4.1: Footpaths and community access road in Sindila Sub-county**

### 4.3 Demographic and population characteristics

#### Population

According to the 2002 housing and population census, Bundibugyo district had a total population of 158,909 people of whom 76,112 (47.9%) were males and 82,797 (52.1%) were females. The 2002 census report indicated that the household population was distributed within 56,426 households, of which 4.7% households were headed by females and 14.6% headed by children.

According to the approved Bundibugyo District Development Plan for the period 2010/11-2014/15, the total population of Sindila Sub-county is estimated at 19,733 of which 10,221 are females and 9,512 are males. The total number of households in the Sub-county is 2,819 with an average size of (7) seven members per household (HH) (Table 4.2).

**Table 4.2 Population demographics of Sindila Sub County**

Sub County	Parishes	Villages	Male	Female	Total	Number of households
Sindila	5	35	9,512	10,221	19,733	2819

Table 4.3 presents the demographic status of the different Parishes in Sindila Sub County.

**Table 4.3: Demographic characteristics of parishes in Sindila Sub-county**

Parish	Males	Females	Total	Number of HH	Average Size of HH
Kakuka	2794	2901	5695	814	7
Bunyangule	1823	1957	3780	540	7
Bunyamwera	2531	2751	5282	755	7
Nkulanga	608	749	1357	194	7
Nyankonda	825	875	1700	243	7
<b>Total</b>	<b>8581</b>	<b>9233</b>	<b>17814</b>	<b>2545</b>	<b>7</b>

The PAI falls within Bunyamwera Parish, which has a total population of 5,282 in 755 households calculated at an average size of seven (7) members per household. Bunyamwera Parish when compared with other rural Parishes in Sindila Sub-county, has a relatively higher population. The more mountainous Parishes such as Nkulanga and Nyankonda have a relatively low population compared to Bunyamwera Parish. The entire population in the PAI can be classified as rural.

Based on the September 2014 socio-economic census survey, the total number of Project Affected Persons (PAPs) is 411 of whom 91.2% (375) are in Bunyamwera and 9.8% (36) are in Nukurunga Parish. Out of the 411 PAPs, 215 were male, while 196 were female. 177 out of the 411 PAPs were children below the age of 18 years - most of these children were in Bunyamwera Parish (164) as compared to Nkurunga (13).

The total number of affected households is 107 and most of the households are in Bunyamwera parish (90%) as compared to Nkurunga Parish (10%). Most of the PAP households had a household size of 1-2 (36%) and 3-4 persons (30%). Relatively less PAP households had 5-6 persons (20%) and more than 6 persons (14%). The mean household size is 3.8 (Table 4.4).

**Table 4.4: PAP household size by Parish**

Household size	Project Affected Area (Freq)			Project Affected Area (Percentage)		
	Bunyamwera	Nkurunga	Total	Bunyamwera	Nkurunga	Total
1-2	34	4	38	35.42	36.36	35.51
3-4	27	5	32	28.13	45.45	29.91
5-6	20	2	22	20.83	18.18	20.56
7-8	9	0	9	9.38	0.00	8.41
9+	6	0	6	6.25	0.00	5.61
Total	96	11	107	100.00	100.00	100.00
<b>Mean HH size</b>	<b>3.9</b>	<b>3.3</b>	<b>3.8</b>			

A further breakdown of the household composition indicates that most of the household members were children of the household head/spouse as indicated in Table 4.5.

**Table 4.5: Composition of the PAP household members**

Position in HHD	Bunyamwera	Nkurunga	Total
Household Head	96	11	107
Spouse of Household	69	12	81
Child of Household	197	12	209
Grandchild of Household	11	1	12
Other relatives of Household	2	0	2
Total	375	36	411

#### 4.4 Ethnicity

Bundibugyo District comprises of six tribes - Bamba, Babwisi, Bakonjo, Babutoku, Batwa and Batooro (Bundibugyo District Statistical Abstract, 2012/2013). These tribes are found in the two counties of Bwamba and Bughendera. The ethnic groups in Bundibugyo are stipulated as follows: majority being Bamba and Babwisi (mainly in Bwamba County) and Bakonzo (mainly in Bughendera county). The other groups are; Batwa, Babutoku and Batooro. These ethnic groups have clan leaders and elders who manage the affairs of their tribes at different forums.

Based on the socioeconomic census survey of September 2014, the affected persons in the PAI belong primarily to the variant of Bukonzo tribe (Table 4.6) and speak the Lukonzo language. Bakonzo fall within the broad Bantu category and very few PAPs were reported as belonging to the Bamba tribe.

The people in the PAI closely identify with their Bakonzo tribe, and most socio-cultural interactions are defined by the customs and traditions of the tribe.

**Table 4.6 Tribal identities in the PAI**

Tribe	Project Affected Area (Freq)			Project Affected Area (Percentage)		
	Bunyamwera	Nkurunga	Total	Bunyamwera	Nkurunga	Total
Bakonjo	91	8	99	100.0	72.7	97.1
Bamba	0	3	3	0.0	27.3	2.9
Total	91	11	102	100.0	100.0	100.0

#### 4.5 Religion

Based on the socio-economic census survey, the most predominant religious denomination are the Anglicans accounting for 83.71% followed by Seventh Day Adventists at 14.4%, while the Islamic and Catholic faiths constitute 0.9% each.

#### 4.6 Gender

The gender situation in Sindila Sub-county mirrors that of the District. The Sindila Sub-county five year development plan for the period 2010/11-2014/15 provides a vivid description of the status of women in the sub county as follows:

*“The economic status of women in the Sub-county is still poor since women manage but do not own resources at home. Women do most of the work at home and yet they are never involved in planning and budgeting at home. Women are involved in food production at home than men but do not own land on which food is produced. Women do not inherit property from their parents. Young girls fall victim to defilement and drop out of school, yet no charges are pressed on offenders. Women are also involved in some petty trade while men spend most of their time drinking in bars and gambling”*

The Sindila Sub-county five year development plan also identifies the following as causes of the prevalence of gender imbalance in the Sub- county:

- Inadequate mobilisation and sensitization on gender;
- Early marriages and pregnancies;
- Negative attitudes towards women with disabilities; and
- Geographical location of the Sub-country on a rugged terrain, making it a "hard to reach area" for implementation and monitoring of gender services.

Plate 4.2 sums up the gender situation in Sindila Sub-county. Out of the 411 PAPs, 215 were male, while 196 were female.



**Plate 4.2: Women in Sindila Sub-county**

**4.7 Education and Literacy**

Education

According to the 2012/2013 Bundibugyo District statistical abstract, the district had 119 primary schools, fifteen (15) of which were privately owned and 104 were government aided. The district was also served by fourteen (14) secondary schools, six (6) of which were privately owned and eight (8) schools government owned. The district also had three (3) tertiary institutions, one (1) of which was privately owned. 45,582 pupils were enrolled in primary schools in the district, in secondary schools and 361 were enrolled in tertiary institutions. At primary education level, girl enrolment constituted 47.5% of the total pupil enrolment.

During the 2012 socio-economic survey of the PAI, there were only seven (7) primary schools in Sindila Sub-county, and one government aided secondary school. There were no tertiary institutions in Sindila Sub-county. Of the seven primary schools in the sub-county, only one school – Kaghughu Primary schools falls within the PAI.

The total number of students attending primary school in Sindila Sub-county was 3,000 pupils of which 1,425 (47.5%) were males and 1,575 (52.5%) were females. The total number of educational institutions and school enrolment in the project Sub-county is provided in Table 4.7.

**Table 4.2: Educational Institutions in Sindila Sub-county**

School	School enrolment		
	Male	Female	Total
Bunyangule Primary	312	373	685
Nyankonda Primary	211	240	451
Bundikahondo Primary – Plate 4.3	195	212	407
Mutiti Primary	220	223	443
Busanza Primary	286	314	600
Kaghughu Primary – Plate 4.4	201	213	414
<b>Total</b>	<b>1425</b>	<b>1575</b>	<b>3000</b>



**Plate 4.3 : Bundikahando Primary School**



**Plate 4.4 : Kaghughu Primary School**

Most of the children in the PAP households attended government aided primary schools (74%) – Table 4.8. The level of service of primary school education facilities attended by children from PAP households was perceived as poor (57%) and average (7.4%). Few PAP households perceived the primary schools performance as good (23.4%) and very good (13 %) – Table 4.8.

**Table 4.3: Type of primary school attended by children from PAP households and attitude about performance**

Ownership/Type of School Attended	Project Affected Area				Attitude about Service	
	BNW	NKR	Total	Percentage	Attitude	(%)
Public Government	70	9	79	74	Very Good	13
Private	19	1	20	19	Good	23.4
Community	2	1	3	2.0	Average	7.4
NGO/Religious	1	0	1	1.0	Bad	57.4
Others	4	0	4	4.0	DK	5
Total	96	11	107	100.0		100.0

BNW\* Bunyamwera

NKR\* Nkurunga

DK\* Do not Know

Half of the PAPs households reported that their children travelled less than 1km daily to the nearest primary schools attended (50%), Others reported their children travelled between 1-5km (31.6%) while the rest reported children travelling more than 5kms daily to attend the nearest primary school – Table 4.9.

**Table 4.4: Distance travelled by PAP household children to attend the nearest primary school**

Distance to primary school attended	Project Affected Area			Percentage
	BNW	NKR	Total	
<=1km	53	0	53	50
over 1 km – 2.5km	17	10	27	25
over 2.5 km – 5km	5	1	6	5.6
over 5 km – 20km	17	0	17	16

Distance to primary school attended	Project Affected Area			Percentage
	BNW	NKR	Total	
DK	4	0	4	3.8
Total	96	11	107	100.0

BNW\* Bunyamwera

NKR\* Nkurunga

DK\* Do not Know

With regards to secondary school education, the September 2014 socioeconomic census survey revealed that majority of the children in the PAP households attended government aided secondary schools (82%) – Table 4.10. The level of performance of secondary school education facilities attended by children from PAP households was perceived as poor (16%) and average (42%). Few PAP households perceived the secondary schools performance as good (23.3%) and very good (7.4%) – Table 4.10.

**Table 4.5: Type of Secondary School attended by Children from PAPs Households and Performance**

Ownership/Type of School Attended	Project Affected Area				Attitude about Service	
	BNW	NKR	Total	Percentage	Attitude	(%)
					DK	11.2
Public Government	79	9	88	82.2	Very Good	7.4
Private	7	0	7	6.5	Good	23.3
Community	1	0	1	2.0	Average	42
Others	9	2	11	10.2	Bad	16
Total	79	9	88	100.0	Total	100.0

BNW\* Bunyamwera

NKR\* Nkurunga

DK\* Do not Know

There are no nearby secondary schools in the project affected area and students always travel long distances to the secondary schools – see Table 4.11 below.

**Table 4.11: Distance travelled by PAP household children to nearest Secondary School attended**

Distance to Primary School Attended	Project Affected Area			Percentage
	BNW	NKR	Total	
<=1km	1	0	1	1.0
over 1 km – 2.5km	14	0	14	13.1
over 2.5 km – 5km	43	8	51	47.6
over 5 km – 20km	25	1	26	24.3
Over 20Km	3	1	4	3.7
DK	10	1	11	10.3
Total	96	11	107	100.0

BNW\* Bunyamwera

NKR\* Nkurunga

DK\* Do not Know

### Literacy

Based on the socioeconomic census survey conducted in the PAI in September 2014, most of the household heads could read and write in any language; easily (56%) and with difficulty (16.8%). Nearly a third of the household heads could not read and write at all (28%) – Table 4.12. In addition, over half of the PAP household heads attained primary level education (57%) while 17% had never attended formal education at all - indicating relatively low levels of education. Only 18.7% had attained some level of tertiary education (Table 4.12).

**Table 4.12: Literacy and Educational attainment of PAP Household Heads**

Literacy Level	Project Affected Area (Freq)			Project Affected Area (Percentage)			All PAPs (freq)
	BNW	NKR	Total	BNW	NKR	Total	
Can Read and Write easily	55	5	60	57.3	45.5	56.1	215
Can Read and Write with difficulty	18	0	18	18.8	0.0	16.8	85
Can't Read/DK	23	6	29	23.9	54.5	28.1	111
<b>Total</b>	<b>96</b>	<b>11</b>	<b>107</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>411</b>
<b>Highest Education Attained</b>	<b>BNW</b>	<b>NKR</b>	<b>Total</b>	<b>BNW</b>	<b>NKR</b>	<b>Total</b>	
Never attended school	14	4	18	14.6	36.4	16.8	
Kindergarten	15	1	16	15.6	9.1	15.0	
Lower primary (p1-4)	31	0	31	32.3	0.0	29.0	
Upper primary (p5-7)	13	1	14	13.5	9.1	13.1	
O Level	15	2	17	15.6	18.2	15.9	
A Level	1	0	1	1.0	0.0	0.9	
University Degree	1	1	2	1.0	9.1	1.9	
DK	6	2	8	6.3	18.2	7.5	
<b>Total</b>	<b>96</b>	<b>11</b>	<b>107</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

BNW\* Bunyamwera

NKR\* Nkurunga

DK\* Do not Know

Nearly half of the PAP household heads did not possess any other functional skill other than farming (49%). However, of those that possessed other functional skills, 12% possessed carpentry skills, 11% had brick making skill, 13% had art and craft skills, 5.6% were also hunters and 4.7% were causal masons around the community (Table 4.13).

**Table 4.6: Other functional skills possessed by PAP Household Heads**

Skills	Project Affected Area (Freq)			Project Affected Area (%)			All PAPs (Freq)
	BNW	NKR	Total	BNW	NKR	Total	
Carpentry	12	1	13	12.5	9.1	12.1	21
Construction	3	2	5	3.1	18.2	4.7	12

	Project Affected Area (Freq)			Project Affected Area (%)			All PAPs (Freq)
	BNW	NKR	Total	BNW	NKR	Total	
Skills							
Brick making	10	2	12	10.4	18.2	11.2	21
Lumberjack	1	0	1	1.0	0.0	0.9	1
Mechanic	1	0	1	1.0	0.0	0.9	1
Welding & Ironworks	1	0	1	1.0	0.0	0.9	5
Fishnet Weaver	1	0	1	1.0	0.0	0.9	1
Arts & Crafts	14	0	14	14.6	0.0	13.1	35
Canoe & boat makers	1	0	1	1.0	0.0	0.9	6
Hunter	3	3	6	3.1	27.3	5.6	7
None	49	3	52	51.0	27.3	48.6	301
Total	96	11	107	100.0	100.0	100.0	411

BNW\* Bunyamwera

NKR\* Nkurunga

#### 4.8 Institutions around the PAI

The socioeconomic census survey September 2014 revealed a number of institutions that will be affected during the implementation of the Sindila MHP. These institutions include; one primary school, three nursery schools, Bunyamwera trading centre and two churches (Table 4.14).

**Table 4.7: Institutions around the PAI**

Name of School	Level	Enrolment		Total	Village	Type/ownership
		Male	female			
Khagugu PS	Primary	200	171	371	Bunyamwera	Public
Bunyamwera Nursery	Pre-primary	40	30	70	Bunyamwera	Private
Kabwe Nursery	Pre-primary	80	100	180	Kabwe	Private
Ntuma Nursery	Pre-primary	100	120	Ntuma	Private	

#### 4.9 Markets around the PAI

Majority of the PAPs travelled over 2.5-5km away to the nearest market (34.6%) – see Table 4.15.

**Table 4.8: Distance to nearest market used by PAP Households**

Distance to Nearest Market	Project Affected Area			
	Bunyamwera	Nkurunga	Total	Percentage
<=1km	16	0	16	15
over 1 km – 2.5km	27	2	29	27
over 2.5 km – 5km	31	6	37	34.6
over 5 km – 20km	19	3	22	20.6
over 20 km	1	0	1	1.0

Distance to Nearest Market	Project Affected Area			
	Bunyamwera	Nkurunga	Total	Percentage
Don't know	2	0	2	1.8
Total	96	11	107	100.0

#### 4.10 Health

##### Health services

According to the 2012/2013 Bundibugyo District statistical abstract, the district had 1 hospital, 31 health centres, 8 clinics and 42 drug shops. The hospital and health centres were government-aided while clinics and drug shops were privately owned.

Sindila Sub-county itself is served by one Government Health Centre III located in Kakuka parish and according to the Sindila Sub-county five year development plan for the period 2010/11-2014/15, people from the neighbouring DRC also use this health centre for treatment. The health centre has a clinical officer, a registered nurse, a midwife, an enrolled nurse, two nursing assistants, two support staff and two security personnel.

In addition to this health centre, there are three privately owned drug shops/clinics in the Sub-county, which are run by semi/unqualified staff. There is no clinic or drug shop in the PAI.

During the September 2014 socio-economic census survey, it was ascertained that most of the PAP households attended government health facilities (65%) with fewer attending private and community health facilities. The level of performance of health facilities used by PAP households was perceived as very good (37%), good (20%) and average (18.7%). Few PAP households perceived the Health facility performance as poor (15%) and very good (7.4%).

##### Diseases

According to the 2005 BIDP survey, malaria was the major cause of illness in Bundibugyo District. The official prevalence of malaria in the district was reported at 47.5% in 2005. Respiratory infection (21.5%) was the second cause of illness followed by diarrhoea at 6.9%.

Common diseases in the Sindila Sub-County are: Malaria, Cholera, Typhoid, Cough and HIV/AIDS. The causes of prevalence of malaria and HIV/AIDS in the Sub-county as described in the Sindila Sub-county development plan are tabulated in Table 4.16.

**Table 4.9: Causes of diseases in Sindila Sub-county**

Disease	Causes
Malaria	Availability of breeding places for mosquitoes
	Non-utilization of mosquito nets
	Non-availability of mosquito spraying facilities
HIV/AIDS	Promiscuity
	Peer pressure
	Low income levels
	Unsafe blood transfusion
	Unsafe sexual behaviour
	Insecurity

	Conservativeness about sexual practices such as polygamy
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The Sub-county development plan further identifies the following as the main challenges in tackling HIV/AIDS in Sindila Sub-county:

- Inadequate funding for HIV/AIDS programmes;
- Limited use of condoms due to cultural beliefs
- Lack of after testing support services;
- Poverty among the community;
- Drunkenness especially during alcohol promotion days and local market days that increase promiscuity;
- Less inclination towards testing HIV/AIDS (stigma);
- Rural urban migration;
- High illiteracy rates;
- Divorce and inheritance of widows; and
- Early marriage, defilement and rape.

The socioeconomic census survey of September 2014 revealed that the pre-dominant health condition suffered among the PAP household members was malaria (62%) with near trends between the project affected areas, Bunyamwera (61%) and Nukuranga (64%).

The levels of reported HIV/AIDS known cases within the households were generally low (1%). However, ulcers (5.6%), polio (3.7%) and TB (3.7%) were relatively higher as compared to the other health conditions (other than malaria) reported in the households (Table 4.17).

**Table 4.10: PAP Household Wellbeing and Health Status**

Health condition suffered (past month)	Project Affected Area (Freq)			Project Affected Area (Percentage)			All PAPs
	BNW	NKR	Total	BNW	NKR	Total	
Surgery/ operation	5	0	5	5.2	0.0	4.7	5
HIV/AIDS	1	0	1	1.0	0.0	0.9	2
Asthma	2	0	2	2.1	0.0	1.9	12
Ulcer	6	0	6	6.3	0.0	5.6	2
Backache	2	0	2	2.1	0.0	1.9	1
Malaria	59	7	66	61.5	63.6	61.7	250
Polio	1	3	4	1.0	27.3	3.7	13
People with disabilities	1	0	1	1.0	0.0	0.9	1
TB	3	1	4	3.1	9.1	3.7	2
Trachoma	1	0	1	1.0	0.0	0.9	12
Typhoid	1	0	1	1.0	0.0	0.9	3
Worms	1	0	1	1.0	0.0	0.9	9
Wounds	1	0	1	1.0	0.0	0.9	13

Others	12	0	12	12.5	0.0	11.2	4
Total	96	11	107	100.0	100.0	100.0	411

#### 4.11 Water and Sanitation

##### Water

According to the BIDP Baseline survey conducted in 2005, the main source of portable water in Bundibugyo District was rivers. The other prominent water sources in the district included piped water supplies, unprotected sources, and protected springs.

The main source of drinking water and that for other domestic purposes in the project area is the Sindila River. People have to walk a distance of between 250m to 4km to reach the river. The two schools in the PAI - Kaghughu Primary School and the Bundikohondo Primary School also do not have a water source and thus the students have to fetch water from the river. In general people have to devote a considerable amount of their time to fetching water (see Plate 4.5) and it may take anywhere between 30 minutes to 2 hours.



**Plate 4.5: Community members fetching water from River Sindila**

Most of the PAP households used unprotected water sources like rivers and streams (98%). Few PAPs down the valleys had alternative protected water sources. PAP households in Bunyamwera did not have access to a protected water source at all. The rivers (Sindila and Ndugutu) appear to be the main water sources used. The relatively high level of diarrhoea and typhoid observed during the socio-economic census is probably also associated with unsafe water sources. Some PAP households walk for over 5kms to the nearest water source (21%) – Table 4.18.

**Table 4.11: Access to water sources**

Distance to water source	Bunyamwera	Nkurunga	Total	Percentage
<=1km	47	4	51	47.6
over 1 km – 2.5km	22	6	28	26
over 2.5 km – 5km	4	0	4	3.7

Distance to water source	Bunyamwera	Nkurunga	Total	Percentage
over 5 km – 20km	21	1	22	20.6
over 20 km	2	0	2	1.9
Total	96	11	107	100.0

### Sanitation

Almost 96% the households in the project impact area have either permanent or temporary latrines. Only 4% of the households do not have this facility. Even though 96% of the households in the project area had latrines, a walk through the village revealed several incidences of open defecation in bushes and along community footpaths.

### **4.12 Settlement and Housing Patterns**

#### Settlement

In 2002, only 7% of the total district population was reported to be living in the urban areas of Bundibugyo district, making it primarily a rural district. This was lower than the national average of 12% of the population living in urban areas of Uganda at the time. In 2011, the percentage of urban population in Bundibugyo increased slightly. Bundibugyo thus ranked among nine districts whose population living in urban areas was about 10% of the total population.

The settlements in the Sindila Sub-county and the PAI are 100% rural. The settlement pattern indicates two distinct varieties i.e. clustered and scattered settlement patterns.

Bunyamwera Trading Centre (see Plate 4.6) is the only example of a clustered settlement in the PAI. All other houses in the Sub-county fall into the scattered settlement category.

Butama Trading Centre, located on the right bank of River Ndugutu operates a fairly large weekly market on Sundays, and is the closest main commercial centre near the PAI. Butama Trading Centre is located in Ndugutu Sub-county in close proximity to Sindila Sub-county.



**Plate 4.6: Bunyamwera Trading Centre**

## Housing Stock in the PAI

The quality of housing stock in the PAI is of a generally poor status as is the situation in Sindila Sub-county and in most of Bundibugyo.

Based on the results of the previous (2012) household survey, majority of the houses in the PAI (95%) are built of clay (95%) - the traditional way of constructing walls. A small number of houses (5%) have walls constructed of cement and bricks.

The roofing materials used in the construction of the houses in the PAI are corrugated iron sheet roofs (71.5%) and 28.5% are grass thatched.

Over 90.9 % of the houses in the PAI have less than four rooms.

### **4.13 Household Welfare and Property Ownership**

The level of household property ownership among PAPs was very low for strategic assets indicating a subsistence household economy – Table 4.19.

**Table 4.12: Household Welfare and Property Ownership**

<b>Property/Item</b>	<b>Bunyamwera</b>	<b>Nkurunga</b>	<b>Total</b>
Mobile phone	56	8	64
Radio	78	9	87
Bicycle	15	03	18
Table	74	06	80
Cupboard	27	01	28
Hoes	87	09	96
Motorbike	06	01	07
Bank account	03	01	04
Shoes	82	11	93
Mosquito Net	84	11	95
Livestock (At least Goat/sheep/cow)	10	11	21

### **4.14 Sources of energy**

Although grid electricity has been extended to Bundibugyo district, only 5 of 13 Sub-counties had access to the national grid in 2008. This is according to the 2008 statistical abstract for the district. At the time of formulating the abstract, 0.2% of the households had access to electricity leaving the majority depending on firewood and charcoal for cooking.

There is no electricity in the PAI or in the Butama Trading Centre. Communities in the PAI depend on firewood for their energy needs. A few families use kerosene for night lighting and others have no form of night lighting at all.

### **4.15 Land Use and Land Tenure**

#### Land Use

Bundibugyo District has a total area coverage estimated at 821km<sup>2</sup>. Of this area, open waters, swamps and rivers cover 210km<sup>2</sup> while 450km<sup>2</sup> is covered by mountains, forests, national parks (Semliki and Mt. Rwenzori) and forest reserves, and 161km<sup>2</sup> is used for settlement and cultivation.

About 59% of the district land area is gazetted as forest reserve as well as a protected area. The terrain is largely hilly especially in Bwamba and Bughendera Counties where cultivation

activities take place and soil erosion is immense. The PAI is located entirely within Bughendera County.

The land use in the PAI falls into the following few categories:

1. Agricultural land: This is the dominant type of land use in the area and the crops grown include, maize, cassava, banana, beans, onions, and other vegetables and fruits. Cash crops such as cocoa, coffee and vanilla are also grown within the PAI.
2. Built structures: These include the houses and the immediate compound area where the kitchen and latrine are located. Other structures include; the schools, churches and other common buildings.
3. Infrastructure: Only footpaths were found in the PAI which is entirely located in a hilly terrain with steep slopes. An existing motorable track from the Butama-Sindila road to the Kaghugha Primary School, a distance of about 1km is in very dilapidated condition negotiable only by a four wheel drive (4WD) vehicle.

#### **4.15.1 Land Tenure**

The existing land tenure systems in Uganda and within the PAI are:

1. Customary
2. Lease hold
3. Freehold

These systems of tenure have evolved under different socio-economic settings.

##### ***Customary tenure***

This is the most widespread and the oldest tenure in the area. Under this tenure, the rights of land are regulated by the local customs. The people of the present generation inherit land from the previous generation. The father of the family divides his land, and gives it out to all children with the male in the family getting the biggest share with the main house. The system has led to increasing fragmentation of land and in turn to inefficiency in the agricultural production.

##### ***Leasehold tenure***

This is tenure granted for a specified period for payment of rent conferred by the state or private individual. The land commission or urban authority grants this tenure system. In the PAI, the leasehold tenure is not very common as the majority of people own land under customary tenure.

##### ***Free hold tenure***

This is full private ownership and is free of any obligations to the state other than payment of taxes, and observance of land use controls imposed in the public interest.

Within Sindila Sub-county, the distribution of land between households is relatively even. Only few families are landless. Although women are by far the main contributors (>70%) to the cultivation of fields, they are generally denied land ownership. It is common for widows and their children to be left without the capacity to make a living because the family of the deceased takes ownership of land.

Results from the September 2014 socio-economic survey indicated that over 70.59% of the households bought their land from the other villagers and in some cases from their parents

and other relations. According to the Uganda National land tenure system, land bought from customary owners without official land titles is still considered under the customary tenure system. Therefore, all the land within the PAI is considered customary owned.

#### **4.16 Economic Activities and Employment**

Agriculture is the main source of income for households in Bundibugyo District. The district is divided into 3 food economy zones. These include; the highland zone, the lowland agricultural zone, and the mixed cattle – cultivation zone.

Bananas, beans, cocoa, coffee, palm oil and vanilla are specially grown in all the food economy zones. Cassava is predominantly grown in the highland and lowland zones, whereas sweet potatoes and groundnuts are common in the lowland zone.

Many households rely on crop and livestock sales as their main source of income. Maize, cassava and beans are actively traded in the mixed cattle zone, and cocoa as well as oil palm in the highland and lowland zones.

Sindila Sub-county falls in the highland zone with over 90% of the households engaged in agriculture. Of these, 85% are engaged in subsistence agriculture and only 5% are engaged in commercial agriculture, growing cash crops (see Plate 4.7).

As subsistence farmers, people in the PAI do not generate sufficient income significantly beyond the level of daily survival. The income from cash crops is used to buy household consumables. The males in the family use a large sum of income obtained from agriculture for alcohol consumption. Although the actual share of the income cannot be verified, in some households the amount used for alcohol consumption is almost 50% of the total income from agriculture. Thus, the level of savings amongst the farming community is extremely low and this has prevented investment in agricultural modernisation. The poverty is a ubiquitous phenomenon in the entire PAI.



Plate 4.7: Agricultural Land in the Project area

#### 4.17 Livelihood activities and income

Based on the socio economic census survey of September 2014, most of the PAP household heads were engaged in subsistence farming as the primary employment (68%) – Table 4.20. Few were own account workers/business owners (10%) and relatively fewer were regular paid public workers (5%).

The socio economic census survey as indicated that land remains the critical livelihood asset in this project affected area; as other alternative livelihood options are very few.

**Table 4.13 Primary Activity engaged in by PAPs household heads**

Activity Engaged in						
Primary Activity	BNW	NKR	Total	BNW	NKR	Total
Going to school	0	1	1	0.0	9.1	0.9
Subsistence farming	66	7	73	68.8	63.6	68.2
Regular paid public post	4	1	5	4.2	9.1	4.7
Own account worker	11	0	11	11.5	0.0	10.3
Don't know	2	0	2	2.1	0.0	1.9
None	13	2	15	13.5	18.2	14.0
Total	96	11	107	100.0	100.0	100.0

BNW\* Bunyamwera

NKR\* Nkurunga

The major source of income for the most of PAPs was subsistence farming (crop farming) (98%) and livestock farming (66%) with near proportions between the project affected areas – Table 4.21. Very few PAPs households had regular employment (33.6%) and transfers (13.1%) as sources of income indicating that the household economy was largely agrarian.

**Table 4.21 PAPs Household Sources of Income**

Sources of income	Project Affected Area (Freq)			Project Affected Area (Percentage)		
	BNW	NKR	Total	BNW	NKR	Total
Enterprise	33	3	36	34.4	27.3	33.6
Employment	6	0	6	6.3	0.0	5.6
Crop farming	94	11	105	97.9	100.0	98.1
Livestock farming	63	8	71	65.6	72.7	66.4
Transfers	13	1	14	13.5	9.1	13.1
Others	27	0	27	28.1	0.0	25.2

BNW\* Bunyamwera

NKR\* Nkurunga

The socioeconomic census survey 2014 revealed the most of the PAP households earned less than 1,000,000 shillings per month (92.5%). All households with more than 1,000,000 shillings monthly income were from Bunyamwera Parish. The relative levels of income by parish are indicated in Table 4.22. The relatively low level of income is reflective of a largely subsistence household economy in the project affected area.

**Table 4.22 PAP Households Levels of Income**

Monthly Income	Project Affected Area (Freq)			Project Affected Area (Percentage)		
	BNW	NKR	Total	BNW	NKR	Total
15000-100000	14	0	14	14.6	0.0	13.1
100001-200000	14	1	15	14.6	9.1	14.0
200001-300000	15	3	18	15.6	27.3	16.8
300001-400000	9	0	9	9.4	0.0	8.4
400001-500000	10	0	10	10.4	0.0	9.3
500001-600000	9	1	10	9.4	9.1	9.3
600001-700000	6	1	7	6.3	9.1	6.5
700001-800000	5	1	6	5.2	9.1	5.6
800001-900000	5	3	8	5.2	27.3	7.5
900001-1000000	1	1	2	1.0	9.1	1.9
>1m	8	0	8	8.3	0.0	7.5
Total	96	11	107	100.0	100.0	100.0

BNW\* Bunyamwera

NKR\* Nkurunga

#### 4.18 Archaeological and Cultural property

##### Archaeology

The proposed project falls within the Albertine graben, which has a number of archaeological and historic sites of national heritage importance (Figure 4.2), besides the unique physical resources of the rift valley, Rwenzori Mountains, national parks and lakes, all of which are important tourist attractions (NEMA, 2009).

The closest sites to the project area include: “*Amabere ga Nyinamwiru*” natural site (approximately 103km from the project area) and Sempaya Hot Spring (approximately 83km from the project area). All these sites are located along the Fort Portal – Bundibugyo road.

##### Cultural property

Although no archaeological sites were identified in the project area, notable about the project area is the history, culture and beliefs of the Bakonzo, which is closely woven around the Rwenzori Mountain. It is believed that prior to 1941, the Rwenzori Mountain did not have clearly marked boundaries and during that time, the mountains were managed and controlled by local communities (Masereka, 1996). The Rwenzori Mountain people, for centuries, depended on the mountain resources, regarding the mountain as a gift of nature (Stacey, 1996). Resource use in the mountain was influenced by beliefs. These beliefs included totems, taboos and beliefs associated with gods and spirits of the mountain.

The Rwenzori Mountain had always been important to the livelihoods and culture of the local communities, until the area’s elevation to park status in 1991, which disenfranchised local people by making access illegal (McCall, 1996). The mountain especially within the RMNP is also an important source of resources to the communities around it such as the Bakonzo, who live on the slopes of the mountain. The resources include; smilax and acalypha (for basket making), medicinal plants, mushrooms, water, honey, fibres from tree bark, bamboo stems and sheath. Since declaration of the mountain as a national park, sacred places in the park have been abandoned. However, communities have a Memoranda of Understanding with the

park authorities (Uganda Wildlife Authority) to access some of these sites in the park in exchange for conservation of park resources.

Other major cultural sites in Bundibugyo District fall within community areas and include:

- Kikyo, in Buhundo parish, owned by a chieftain,
- Buthatsimbwa, a soft ground used for rain making and health;
- Kyomukama, found in Bupomboli Parish used by the ridge leaders;
- Kakuka, a huge tree visited in order to control famine, to perform rituals for peace, to control diseases and epidemics, and cleansing of the land; and
- Ikondere site found in Bupomboli Parish, Kitsimba village and on the Bupomboli ridge.

Of the major cultural sites in Bundibugyo District listed above, the PAI is closest to Kakuka cultural site, which is located in Kakuka parish (1.5km to the park boundary) – Sindila Sub-county.

In addition to Kakuka cultural site, communities use the proposed weir location as a cultural site for spiritual and healing rituals. The mini falls are believed to possess power for healing diseases and cleansing of spirits.

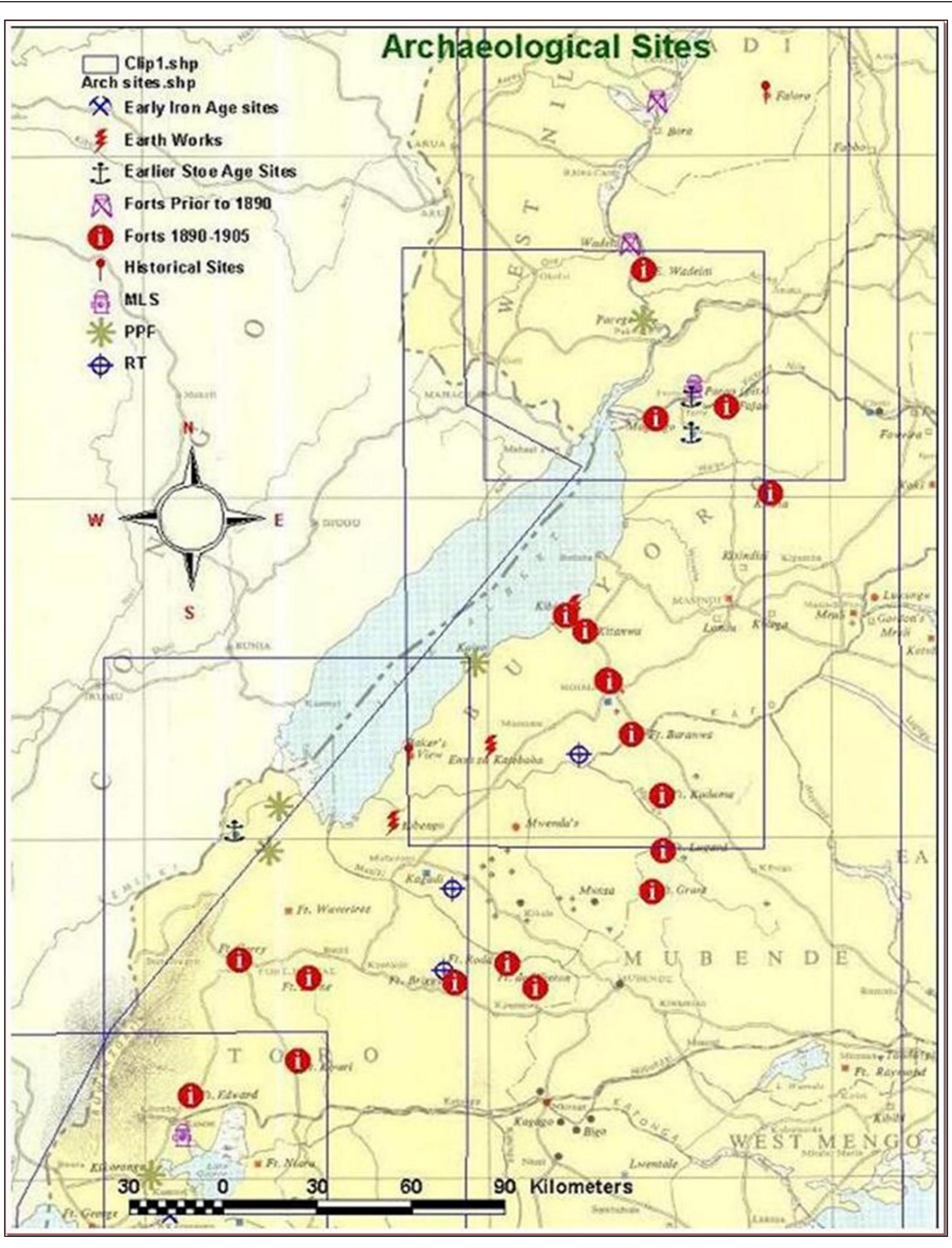


Figure 4.2: Cultural sites of the Albertine Graben

## **5 PROJECT IMPACTS**

The proposed project just with most developments will have both positive and negative impacts associated with it. These are presented below.

### **5.1 Positive impacts of the proposed project**

#### **5.1.1 Improvement in power supply**

The proposed project is anticipated to improve access to electricity within Bundibugyo, Kasese, Kabarole districts as well as other but particularly in Sindila Sub-county which currently does not have electricity. This will go a long way in contributing toward the socio-economic transformation of the country.

This positive impact will be realised during the operations phase of the proposed project.

#### **5.1.2 Creation of employment opportunities**

The project is anticipated to create employment opportunities for both skilled and unskilled labour. Skilled personnel will be employed as Managers, Supervisors, Engineers, Architects, Surveyors, and in other technical positions whereas unskilled labourers will be support staff and perform non-technical tasks. During the construction of the dam (weir), diversion canal, powerhouse, upgrading of the access road and other construction activities, approximately 100-150 workers are expected to be recruited. In addition, most of the casual labourers will be hired from the project area and this will have an economic multiplier effect in the local community as a result of boosting household incomes.

The participation of local community members, most of whom currently rely on subsistence agriculture, will be maximised during the project. Unskilled labour will be recruited exclusively from directly affected communities, and semi-skilled labour will be recruited preferentially from such directly affected communities, provided that they have the requisite skills.

#### **5.1.3 Increased revenue to the government**

The electricity that will be generated by the proposed Sindila MHP will generate revenue for the district and the country in general in the form of Value Added Tax (VAT) on electricity, levy on transmission of bulk purchases of electricity, license fees and royalties as well as foreign exchange earnings in case power is exported to neighbouring DRC.

#### **5.1.4 Improvement in social services**

Roads in the project area are in poor condition and transport links are poorly developed. Schools and health facilities are insufficient, poorly staffed and poorly equipped. Currently there are no motorable roads beyond the Kaghughu Primary School.

The proposed project will directly or indirectly benefit local communities and increase service delivery, as it has the potential to lead to the establishment and improvement of some social services and related infrastructure in the project area such as bridges, feeder roads, schools and health facilities. This is because some of these services such as roads may directly be used by the project. These roads will also have to be maintained in order to be used for future operation and maintenance works.

### **5.1.5 Alternative sources of energy**

According to the Uganda Bureau of Statistics, National Household Survey Report, 2009/2010, wood fuel is the predominant source of fuel used by most Ugandans. This survey ascertained that 95% of the households surveyed still used wood fuel (wood and charcoal) as the main source of energy for cooking. Firewood was most commonly used by the rural households (86%) whereas charcoal was commonly used by urban households (70%).

Baseline survey results revealed that the rural populations in the proposed project area solely depend on fuel wood as a source of energy without any sustainable alternatives. The proposed project is anticipated to produce 5.25MW of electricity which will complement fuel wood in the project area as well as other districts, in so doing reducing reliance on fuel wood and current pressures on forests.

## **5.2 Negative impacts of the proposed project**

### **5.2.1 Loss of access to land**

Implementation of the proposed project will necessitate both permanent and temporary land acquisition. Permanent land acquisition will be necessary for the establishment of permanent project infrastructure like the weir, headrace canal, forebay, penstock, power house and access roads (for accessing these infrastructural components) whereas, temporary land acquisition will be necessary for establishment of temporary project related infrastructure like the contractors/worker's camp. Furthermore, permanent land take will arise from the acquisition of the power corridor for establishment of new transmission lines to extend power from the Sindila MHP generation points to Bundibugyo town and other areas.

Since a great section of the proposed project footprint falls on arable land, the crops that will be found in this area at the time of construction will need to be removed. The socio-economic survey information indicates that the majority of PAP households are engaged in subsistence farming (agriculture). Tilling the land using family labour just prior to rains and growing of cash crops such as maize, beans, bananas, potatoes and vegetables and perennial crops such as coffee, can be widely observed in all the agricultural lands. If the local people are not given sufficient time to harvest their crops prior to the construction phase, loss of crops will result in short term food shortages for the affected households.

### **5.2.2 Impact on social and economic networks**

The proposed project has the potential to disrupt the current social and economic networks among the displaced people. The communities in the project area have networks and linkages with each other that they depend on to make a living and to provide assistance in times of need (for example, emotional and monetary support during family emergencies). These networks will be permanently disrupted by the resettlements as a result of the project.

The socio-economic census survey September 2014 indicated that the total number of the affected persons is about 411, according to the land survey report of September 2014 they are 22 households out of 107 who will lose more than 20 percent of their land and 5 households will lose 100% of their land (see Annexure 2). There are two small houses located within the original channel path of the project which is now within the penstock trace since the forebay has been moved much closer to the weir in the new project design. It will be possible to shift the penstock slightly to avoid these houses during design finalisation without a material change in the cost or timing of the project. This exercise was not undertaken as part of the RAP update

because of the short time available for the resubmission. It will be carried out during the process of the final cadastral survey prior to acquisition of land required for the project. There are a further five houses which are in close proximity to the penstock although not within the land corridor to be acquired for the project. Since the project element passing nearby is a penstock pipe, and not an open channel, this project element will have little or no adverse impact on these houses during construction and operation of the plant.

### 5.2.3 Impact on structures

The proposed project will have direct and indirect social impacts on a number of homesteads. According to the valuation of 2013 (which report needs to be updated following the updating of the land survey) – see Annexure 3, 32 structures (temporary and semi-permanent) were observed at the proposed project site. Some of these structures would therefore need to be demolished and the owners compensated at the full replacement cost. This impact will be particularly significant during the construction phase, where a number of homesteads will be affected.

### 5.2.4 Physical resettlement

The analysis of the potential project impact discussed in this section is related to the fact that during the implementation of project activities, any human settlements within the proposed project footprint will be ‘displaced’. The baseline information indicates that most of the project components are located within community land. This impact is applicable to the construction phase only, as it is assumed that no other land will need to be acquired during the operations phase.

OP4.12 requires that if displaced persons are losing more than 20 percent of their total agricultural land, they are generally considered severely affected. Those whose livelihoods are land-based and who are losing more than 20 percent of their total productive agricultural land are to be given an option allowing them to acquire comparable replacement land. They may, at their option, choose cash compensation and economic rehabilitation, instead of land replacement. If displaced persons are losing access to less than 20 percent of their landholding can be paid cash compensation at replacement cost for the portion of land lost to them.

If the affected persons losing 80 percent or more of their total agricultural land are given an option allowing them to relinquish the remainder at replacement cost, acquire replacement land equivalent in size or productive value to their entire holdings, or choose among other rehabilitation measures, as appropriate. However, in cases in which acquisition of less than 80 percent of the landholding renders the remainder of the landholding no longer viable, Bank policy recommends that the entire plot be acquired or “If the residual of the asset being taken is not economically viable, compensation and other resettlement assistance are provided as if the entire asset had been taken (see Table 5.1) below.

**Table 5.1: Severity of Impact of Land take and recommended entitlement options**

	Amount of Holdings acquired	Option of replacement land for that taken	Prorated cash compensation	Rehabilitation package	Option to sell residual land
Residual holdings economically viable	Less than 20%		X		
	More than 20%	X	X	X	X
	More than 80%	X	X	X	X
Residual	Percentage	X	X	X	X

holdings no longer economically viable	irrelevant				
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Physical resettlement of homesteads has far reaching impacts in addition to relocation to a new place especially if people are resettled into different communities that are reasonably far away from their original area of residence. This can result in the breakdown of existing social networks, loss of access to cultural and social centres and increased vulnerability of the relocated homesteads especially if the new areas have fewer opportunities than the former.

As mentioned in Section 5.2.2 above, the socio-economic census survey (September 2014) indicated that the total number of the affected persons is 411 and 107 households. Of the 107 households, 22 households will lose more than 20 percent of their land and 5 households will lose 100% of their land (see Annexure 2). There are two small houses located within the original channel path of the project which is now within the penstock trace since the forebay has been moved much closer to the weir in the new project design. It will be possible to shift the penstock slightly to avoid these houses during design finalisation without a material change in the cost or timing of the project. This exercise was not undertaken as part of the RAP update because of the short time available for the resubmission. It will be carried out during the process of the final cadastral survey prior to acquisition of land required for the project. There are a further five houses which are in close proximity to the penstock although not within the land corridor to be acquired for the project. Since the project element passing nearby is a penstock pipe, and not an open channel, this project element will have little or no adverse impact on these houses during construction and operation of the plant.

The change in the design of the project will avoid the physical displacement by the project activities but still offer a disturbance allowance to the afore-mentioned PAPs dating back to the valuation cut-off date.

### **5.2.5 Impacts on surface water quality and supply**

The baseline information indicates that the colour, the level of total suspended solids and faecal coliforms for the water samples taken from River Sindila exceed the permissible maximum levels for (untreated) potable water.

Contaminated run-off from spill sites could adversely affect soils and vegetation and if it reaches the river, would have an adverse impact on water quality. The extent of this impact will vary depending on the size, frequency and timing of spills, in relation to flow conditions in the receiving waters and the nature of the materials involved, including their toxicity.

During the construction of the weir, channel deepening and widening is likely to result into increased turbidity and change the colour of the River Sindila water. In addition, the materials used in the establishment of the weir such as cement may result in increased concentration of ions such as calcium, silicon, aluminum, iron and sulphates to levels above the recommended national limits for (untreated) potable water available for water consumers.

Inappropriate disposal of waste and wastewater from the camp site also has the potential to have negative effects on water quality. However, the extent of this potential impact will also vary depending on the location of discharge points and the dilution possible in the receiving waters.

Impacts on the water body downstream will include; reduction in dissolved oxygen levels, nutrient loading causing increased algal growth, and the spread of pathogenic disease vectors.

Uncontrolled discharge of waste would have a moderate adverse effect on water quality but this can be mitigated if appropriate measures are put in place.

#### **5.2.6 Increased disease vector population**

The development of the proposed project has the possibility to result in an increase in disease vector populations as a result of changes in the river ecology.

Baseline information indicates that the most common diseases treated in Sindila Sub-county are malaria with 59% of the population suffering from it and typhoid with 13% of the population suffering from it. Both these diseases are associated with vectors that breed in water.

Construction of the flow diversion weir across the river has the potential of altering the river ecology. The impoundment is relatively small considering the height of the weir (2.5m in height). However, the possibility of increasing disease vector populations because of this impoundment cannot be ruled out.

In light of the above, a permanent change in water flows in River Sindila and the creation of the reservoir/weir could influence disease incidences in the area through creation of suitable habitats/favourable conditions for the breeding of some disease vectors and pathogens, specifically for diseases such as malaria and typhoid. The decreased stream flow rate in the river, both upstream and downstream, resulting from the diversion of water flow into the channel is expected to increase the incidence and breeding places for vectors that transmit malaria, typhoid, urinary and intestinal bilharzia . This is particularly likely to affect children, and other users of the river. Treatment for these diseases is relatively simple, although it is crucial to seek medical attention immediately. If left untreated, serious disabilities or even death can occur. Given that the proposed project area already has inadequate health facilities and timely treatment of vector-borne diseases is likely to be a challenge.

#### **5.2.7 Increased traffic**

There will be an increase in vehicular traffic during the construction phase of the project. This will result mainly from movement of heavy duty construction equipment, trucks delivering required construction equipment and materials to the proposed project site and light vehicles transporting the construction personnel.

Although the current traffic level on the road network within the project area is low, the additional traffic will be noticeable to the local community members and is likely to interfere with their regular movements through closure or diversion of roads during construction of the access roads. During the construction phase, a 2.6 km access road will be constructed to ease access to the project site. The increased volume of traffic to the site may also increase the potential for accidents especially along the roads in the community leading to and from the proposed project site.

#### **5.2.8 Impacts on cultural resources**

The analysis of the potential project impact described in this section is based on the possibility that during the implementation of the proposed project, resources such as cultural or sacred sites and cultural practices may be impacted on negatively.

During the construction phase, this impact will be highly noticeable if the majority of the construction crew are from outside the project area, freely interact with the local community members, attach less value and look down on some of the traditional cultural practices and make attempts to promote their own culture. However, the majority of the construction crew

from outside the proposed project area will be housed in the workers camp with their movements controlled.

### **5.2.9 Increased spread of HIV/AIDs**

Influx of workers may augment the physical and social interactions between workers and locals which may negatively impact on public health such as; an increase in sexually transmitted infections (STI), and HIV/AIDS. The baseline information related to this is presented in Section 4.9 (Health status), this information indicates that the percentage of people infected with HIV/AIDS in the district is 16.2%, which is higher than the national HIV/AIDS prevalence rate of 6.2%.

Physical and social interactions between the construction crew and locals may negatively impact on public health. Usually, activities such as those associated with the proposed project, are often associated with an increase in the spread of sexually transmitted infections (STI), and HIV/AIDS in particular - a major development challenge, as a result of the socialisation between the locals and workers, and a spike in prostitution.

### **5.2.10 Impacts on vulnerable persons**

Vulnerable People are persons who, by virtue of their gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status, may be more adversely affected by resettlement than others and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits.

Most times vulnerable people depend on benevolent support from relatives or people of good will. Some do not even own housing structures of their own; everything is facilitated by their relatives or other people in their community. The resettlement process associated with the proposed project poses a risk as some vulnerable people may lose support from their benevolent and their social networks. Therefore this calls for careful screening in project design and attentive resettlement to help vulnerable groups improve or at least re-establish their lives and livelihoods.

Land-for-land compensation options as opposed to cash compensation tend to protect the vulnerable groups in the community, whereas cash compensation is often detrimental to females and children as it is much more likely to be used and/or misused to the sole benefit of men like remarrying other women.

Women are part of the vulnerable group because they may be excluded from participation in community economic development programmes and are often exposed to greater risks of impoverishment. Of the total number of PAPs (411), 196 were female, 177 were children below the age of 18 years and 1 was disabled – see health in Section 4 above.

### **5.2.11 In-migration**

The Sindila MHP will create employment and other economic opportunities that may lead to an increased population in areas within the project footprint (*Ntuma, Kabwe, Kakuka, Buboni, Mutiti, and Bisya*), particularly during construction. It is likely that most new arrivals will settle in Bundibugyo, Nyahuka and Butama town. Upon Project closure, a net out-migration may occur, as people leave to seek other employment opportunities. In-migration, however, is expected to be limited, as the construction workforce will only be approximately (100-150) people – similar to the scale of work for the Sindila MHP (where in-migration had very low or negligible impacts associated with in-migration).

In addition to employment opportunities, speculation about resettlement and compensation entitlements for land and assets within the PAI may also have the potential to lead to significant undesirable in-migration to the area.

Uncontrolled in-migration into the PAI could have the following consequences:

- Strain existing social services, particularly health and education facilities;
- Social disharmony and conflict between original residents and in-coming migrants;
- Less employment opportunities for original residents;
- Gender imbalance, as the migrant population is likely to be predominately male;
- Increased pressure on land, forest and water resources in the area; and
- Increase the risk of introduced diseases, especially those transmitted sexually.

The Project Developer initiatives in cooperation with Government authorities and the local community should help to minimise the potential impacts of increased population through measures such as a preferential employment policy and development of alternative livelihood activities.

The Project Developer should commit to prioritising employment of local labour to maximise benefit for local communities and minimise potential increases in pressure on land use. This strategy should ensure that those living within the PAI are provided with employment opportunities and include diversification of village employment through direct and indirect job provision.

## **6 PUBLIC CONSULTATION AND DISCLOSURE**

### **6.1 Introduction**

The World Bank and Government of Uganda Guidelines (see Chapter 3 above) require that the people likely to be affected by a development project are consulted so that their views and concerns are incorporated into development planning. Knowledge of stakeholder's perceptions (in particular, affected local communities) assists during compensation and resettlement action planning. Therefore, during the RAP preparation process, consultations were conducted with relevant stakeholders, including potential beneficiaries, affected groups, and local authorities with regards to the proposed project's environmental and social aspects and their views considered.

In addition to the above, one of the aims of consultations was to build consensus and ensure that the community is well versed with the proposed project.

### **6.2 Stakeholder Analysis**

The stakeholder analysis can be defined as the process of determining the stakeholders who will be affected directly or indirectly, positively or negatively by the proposed project and who can contribute to, or hinder its success. All stakeholders need to be kept informed during project implementation so as to accord them the necessary support and advice. A stakeholder analysis was undertaken for the Sindila MHPP in order to identify the relevant stakeholders.

Stakeholders are individuals, groups and entities that are affected by a development activity either directly or indirectly, or those that may exert either positive or negative influence on the project. Those that are directly affected are known as, primary stakeholders whilst those that are affected indirectly, are known as secondary stakeholders. A number of key stakeholders were engaged in the consultations component of the RAP baseline study.

Consultations were carried out with three groups of stakeholders, namely;

- Directly affected persons;
- Indirectly affected persons;
- Government Agencies.

### **6.3 Stakeholder Engagement**

Stakeholder engagement refers to a process of sharing information and knowledge related to the project activities, seeking to understand and respond to the PAPs concerns and building relationships based on collaboration. At this stage the developer/developer's representative keeps everyone involved, motivated and updated about the project activities, ensuring that there is a shared understanding of meaning and minimising the opportunity for rumours and gossip.

Stakeholder engagement involved a participatory approach in which the RAP team described the planned, pre, during and post-construction activities and informed the stakeholders about the key issues as well the schedule of the project activities. The stakeholders were then given opportunity to respond by asking questions or making comments about the planned project activities. Reference is also made to Section 7 of the updated ESIA (September, 2014) for details of the issues and concerns raised with regards to the proposed project.

### **6.3.1 Purpose of the stakeholder engagement**

In line with the World Bank (OP) 4.12 requirements, “displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs” therefore, the stakeholder engagement was aimed at providing early and accurate information to project ‘displaced’ persons, allay fears, dispel misconceptions, information exchange, decision-making, building trust and providing a foundation for collaboration between PAPs and developer of the project.

In line with IFC PS 1 requirements, stakeholder engagement is an ongoing process that may involve, in varying degrees, stakeholder analysis and planning, disclosure and dissemination of information, consultation and participation, grievance mechanism, and ongoing reporting to affected Communities.

## **6.4 Stakeholder Consultations**

In order to ensure that the interests of the community, the PAPs and the public at various levels, are addressed and incorporated into the design of the RAP, a consultative-participatory approach was adopted to shed some light on the project sub-components, implementation activities, and to explain the likely impact and the resettlement measures available to the PAPs. Throughout the RAP process, formal and informal consultations were undertaken with the central government, Bundibugyo district, Sub-county and Village-level government officials, among others.

To ensure consistency with IFC PS 1, which requires “effective community engagement through disclosure of project related information and consultation with local communities on matters that directly affect them,” village-level consultation meetings were held. Formal consultations were also conducted which included village and household-level surveys and group discussions, village-level presentations and planned meetings with local and central government officials (see Annexure 4) for stakeholder consultation minutes. Consultations were carried out with four groups of stakeholders as indicated below:

- National Environment Management Authority (NEMA);
- Sindila Sub-county Chief;
- LC (V) Chairman – Bundibugyo District;
- LC (IV) representative;
- The local community members; and
- Uganda Wildlife Authority

### **6.4.1 Directly affected persons**

The directly affected persons are the people who reside in, or derive their livelihood from the proposed project footprint. The directly affected persons for the Sindila MHP are the people falling within the direct project footprint within the 6 villages of Ntuma, Kabwe, Mutiti, Kakuka, Buboni and Bihya

### **6.4.2 Indirectly affected persons**

This group includes persons who reside near the project’s area of influence or rely on resources likely to be affected by the project (such as individuals who are reliant on the water from the River Sindila). This group of stakeholders may have to change or adjust their living patterns with the construction of the Sindila MHP.

### **6.4.3 Government agencies**

The government entities consulted at various levels included; National Environment Management Authority (NEMA), Chairman LC5 Bundibugyo district, Bundibugyo District Land officer, Uganda Wildlife Authority, the Sub-county Chief and LC3 Chairperson of Sindila Sub-county.

## **7 ELIGIBILITY AND ENTITLEMENT**

In line with OP 4.12 requirements, eligibility for resettlement entitlements is determined by land ownership and severity of impacts. Land ownership includes title, customary, and traditional rights, as well as formal and informal contractual rights. The severity of impacts may range from minor to severe.

Minor impacts occur when “less than 10% of the PAPs productive assets are lost,” with no physical relocation. Severe impact is when more than 10% of land (or resources) is taken, physical relocation occurs from one’s residence or place of business, or people suffer significant loss of livelihood and income.

The type of ownership or claim, in combination with the severity of impact, determines the relevant resettlement entitlements, which are generally defined in proportion to the impact on displaced persons.

### **7.1 Key Principles**

The key principles committed to by the developer in this RAP are the following:

- i. Resettlement and compensation of PAPs will be carried out in compliance with Ugandan legislation. In addition, all physically or economically displaced people will be offered an option between either a full resettlement package, including the provision of replacement residential land and a house, or cash compensation.
- ii. Past experience in Uganda has shown that cash compensation, although very sought after by many household heads, could be detrimental in the medium term, if not wisely used, to other household members, particularly the females and children; the Project will make every effort to ensure that cash compensation will be made effective, and this plan is designed accordingly.
- iii. Majority of PAPs derive their livelihood from agriculture (see Section 4). Where farmers are physically or economically displaced, they will be offered assistance to restore their livelihoods and will be provided with transitional assistance as is necessary, as long as livelihoods are restored to their previous level at a minimum. Specific livelihood restoration activities will target women.
- iv. The RAP will be implemented in a gender-sensitive manner: the consent of female spouses will be sought, as provided for by Ugandan legislation.
- v. The RAP implementation and outcomes will be monitored and evaluated as part of a transparent process.
- vi. PAPs will be informed and consulted during the whole course of RAP development, implementation and evaluation.

### **7.2 Compensation strategy**

In the interest of minimising the project’s negative socio-economic impacts, the compensation strategy will take into consideration the socio-economic status of the PAPs as well as the associated level of impact on them.

The following strategies will be considered as part of the compensation process:

- For land that is to be permanently acquired, land for land compensation will be strongly encouraged. This is because in the project area, most of the livelihoods that are likely to be affected are land based. The compensation team and the developer will work closely with the affected communities, the local government leadership, the traditional leadership and the district technical staff responsible for resettlement to identify possible sites for relocation of the respective PAPs if any;
- For perennial crops, monetary cash compensation will be considered in accordance with current Bundibugyo district compensation rates;
- In the case of annual crops, the preferred option will be to allow the PAPs to harvest their crops in order to have minimal disruption or disturbance on the affected households' food availability;
- For permanent structures that will be wholly affected, PAPs will be given an option for either cash or in kind replacement. For those who choose in kind compensation, new structures will be constructed at resettlement sites following negotiations with the owners and/or community. For permanent structures that will be partially affected and if the remaining piece of land allows for re-development, cash compensation will be considered to allow the PAPs re-develop their sites and structures;
- This RAP considers the interests of vulnerable social groups in the community that are likely to be affected by the project. The social groups considered include PAP households with very old persons, disabled persons, the poor, female headship and child headship. A special assistance and resettlement compensation allowance will be considered for such groups besides the other resettlement compensations. Such special assistance will include counselling or physical and social support, and necessary trainings to enable such vulnerable households to cope with displacement and resettlement; and
- In developing the resettlement compensation procedures and their implementation, the RAP considers and recognises the rights of the spouses and children of the owner of the potentially affected land to be acquired in accordance with the provisions of Section 39 of the Land Act (Cap 227). Table 7.1 below is an illustration of the compensation strategy that will be adopted for the Sindila MHP.

**Table 7.1: Illustration of the compensation strategy**

<b>State of ownership</b>	<b>Compensation strategy</b>
The whole land is affected and there are structures on it.	Such PAPs will move, they will be offered land for land compensation or replacement of structures and/or cash compensation and relocate themselves depending on their preference.
The whole land is affected but there are no structures on it.	Land for land compensation will be offered as an option if the household does not have sufficient land elsewhere.
The affected land is partly within the project footprint and with structures.	Land for land compensation will be offered as an option if the remaining land is not sufficient for the household.
The land lies partially within the project footprint and is partly unaffected. No structure.	The loss of value resulting from such a situation will be compensated for in cash.
Only the structure is affected with no land.	Replacement of the structure to a

State of ownership	Compensation strategy
	resettlement site or cash compensation.

### 7.3 National criteria on compensation

Compensation must comply with the Ugandan Laws, the District Land Board Regulations and local and cultural acceptances. An important Ugandan requirement is that Section 39 of the Land Act 1998 (as amended in 2010) makes it compulsory to seek spousal consent before any compensation package is agreed upon. As mentioned earlier, cash compensation entails a number of risks of impoverishment of female spouses and children. In addition to seeking formal consent of spouses, the following steps will be taken to mitigate these risks:

- a) Payment of compensation in the presence of the wife and children of majority age as per the Land Act.
- b) Establishment of cash compensation review committees.

### 7.4 Eligibility for compensation

The determination of eligibility for various types of compensation will be based on the PAP categories as well as whether an individual PAP and their affected property existed in the project affected area before the valuation cut-off date.

A resettlement cut-off date is the calendar limit on the project's responsibility to compensate for impacts, by specifically defining the date after which the public 'should know' not to make improvements or settle on project land by virtue of public consultation and other communication efforts.

Past experience in Uganda has shown that certain individuals or groups, deliberately establish themselves within a project footprint in anticipation of compensation benefits. The cut-off date protects project owners from this opportunistic and potentially costly phenomenon, which can significantly delay the compensation of legitimate PAPs.

In line with the WB OP 4.12 and PS 5 requirements, PAPs are categorised into three categories as follows:

- Those who have formal rights to land (including customary and statutory rights of occupancy recognised under Ugandan law).
- Those who do not have formal legal rights to land at the time the census commences but have a claim to such land or assets provided that such claims are recognised under Ugandan laws, or become recognised through a process identified in the resettlement and compensation action plan; and those who have no claim to the land they are occupying or using, but are earning a livelihood from such land; and
- Those who have no recognisable legal right or claim to the land they are occupying.

### 7.5 Census and Cut-off Date

The cut-off date is most times determined by the timing in which key project activities such as the census, survey of the project-affected area and data validation by competent authorities are completed.

In the case of the proposed Sindila MHP, the cut off date was set as the date when the sensitisation, valuation and census exercises ended. Any structure or garden established in the project affected area after those dates shall be deemed speculative and thus not eligible for compensation for the lost assets and /or resettlement and rehabilitation.

## **7.6 Basis for Valuation of Losses**

Ugandan legislation has well developed Laws and Regulations defining the basis to be used for valuation of the type of loss resulting from development projects. The principles guiding the valuation include:

- Provide equivalent replacement land for long term losses;
- Compensating for any losses in net income; and
- Focus on restoring annual income.

Based on the compensation proclamation, the proposed project will employ the principle of replacement cost and compensation at market cost for valuation of lost assets.

Depreciated Replacement Cost method was used as the basis for valuing permanent structures, since the likely affected structures are located in a rural area. This approach involves an application of the prevailing market construction rates per square metre and applying it to the area of the building under consideration. An allowance for depreciation reflecting the condition of the property under consideration is then applied.

## **7.7 Speculative Structures**

Opportunistic uninhabitable structures might be established for the sole purpose of compensation. These potentially pose a specific eligibility problem. The following methods were used to ascertain the validity of a compensation claim:

- I. Visual inspection of the structure to determine whether it is indeed a residential structure or not; and
- II. Consultation with representatives of local authorities to ascertain whether the contested structure was indeed there at the time of the census and whether it was established in good faith or in an opportunistic compensation purpose.

## **7.8 Entitlements**

The right to benefits will only be granted to PAPs whose assets will be demolished and those who will have to move their assets to a different location. The developer will use prevailing market rates for permanent structures, titled land and trees as practiced by the international Valuation Standards Committee (2008) rules, and the Institution of Surveyors of Uganda Valuation rules.

### **7.8.1 Compensation for loss of crops and trees**

Compensation for Perennial crops and Annual (seasonal) crops was evaluated based on Bundibugyo district compensation rates. Unintentional damage to crops could not be evaluated before the level of damage was known. This will be handled at an appropriate stage by the grievance committee (see Section 9).

### **7.8.2 Compensation for loss of structures**

The compensation for structures e.g. houses, pit latrines etc that will be affected will be based on value of houses and their status, after which, a disturbance allowance of 30% will be added to the total cost.

Compensation will be in accordance with the district compensation rates for crops and “non-permanent” structures. Permanent structures were valued on a case-by-case basis.

### **7.8.3 Compensation for loss of land**

Compensation for loss of land will be provided to all PAPs who currently own land regardless of land size, or the current land use. Under the Primary Entitlement Measures, cash compensation will be provided based on the government valuation amount, and a disturbance allowance of 30%. This is considered adequate for replacement value.

## **7.9 Payment Options**

Compensation for dismantled infrastructure or disrupted services will be paid to affected communities, or to the local government as appropriate, at full replacement cost before civil works begin. All project affected persons willing to sell their land were provided with compensation options i.e. land for land or cash compensation, but that was done after informed consultation during the social-economic survey to enable PAPs choose the best option. For losses that cannot easily be valued or compensated for in monetary terms (e.g. access to public services, customers, and suppliers; or to fishing, grazing, or forest areas), attempts will be made to establish access to equivalent and culturally acceptable resources and earning opportunities.

## **7.10 Payment Procedure**

In order to reduce the incidences of graft and corruption in the compensation payment process, compensation will be paid in cash if the amount of money is less than or equal to One Hundred Thousand (100,000) Uganda Shillings. Otherwise payments will be made into bank accounts of beneficiaries. Beneficiary households will be encouraged to open up bank accounts with the banks of their choice. Each person who receives compensation will sign a compensation payment certificate/form showing compensation amounts and all items compensated for in the presence of local leaders and project representatives.

## **7.11 Entitlement Matrix**

Table 7.2 below defines the eligibility for compensation and rehabilitation assistance for impacts /losses for different types of assets for different categories of PAPs.

**Table 7.2: Resettlement Entitlement Matrix**

<b>Types of loss</b>	<b>Eligibility</b>	<b>Compensation strategy</b>	<b>Other measures</b>
Loss of land	Title holder, lease holder, tenants, squatters and other occupants using the land.	Provided compensation alternatives to enable the PAPs to choose the best. (cash or in kind compensation)	Resettlement assistance (15% or 30%) depending on the period given to the PAPs to vacate the land required by the project.
Loss of structure	All permanent and temporary structures.	Replacement/relocation of structures in the new resettlement area and/or cash compensation.	Transport allowance based on household basis and/or building materials.
Loss of business	Business/building owners	Payment of anticipated profit for period of relocation for 6 months.  Replacement compensation for assets which cannot be moved.	Provide travelling allowance based on the nature of the business.
Loss of crops and trees.	All owners of crops and trees	Cash compensation for lost crops and trees.	Provide assistance with accessing farming inputs (seeds)
Loss of wage labour	All employees who lose their jobs as a result of project construction activities.	Ensure transfer of jobs/identification of similar jobs at the new resettlement site.	Provision of transition allowance for the intermediate period.
Any losses incurred by vulnerable groups	Poor, orphans, single headed family (women or children), people with living with disabilities and chronically ill.	Identify vulnerable persons that have become more impoverished a result of resettlement and provide assistance/support package in collaboration with other support networks that may include food, education, vocational training, healthcare etc.	Prioritise vulnerable persons for assistance in restoring income and/or finding jobs as well as accessing local services and facilities.
Loss of communal natural resources	Forest and water sources	Ensure access to equivalent resources or restore these in the new settlement area.	Provide the supportive allowance until natural resource livelihood is restored.
Loss of communal grazing land	Communal and private land	Relocate other grazing places around the new resettlement area.	Relocate other grazing places around the new resettlement area.
Loss of public	Roads, water	Compensation to the relevant authority/owner or	Replace structures with similar or

infrastructure	wells/boreholes and all other public utilities shared by the community.	community.	better facilities at the new resettlement sites through consultation with PAPs.
Loss of and access to social services	Schools, hospitals, churches, mosque, play grounds and others.	Compensation to the relevant authority/owner or community.	Ensure new resettlement site has or readily accessible social services such as schools, hospitals/health centres and other social services.
Loss of cultural sites	Graves and all historical and cultural sites.	Ensure access to all cultural sites or have them restored.	Restore or relocate all cultural and historical sites to the new resettlement sites.
Loss of fishing grounds	All users of the fishing grounds.	Provide access to equivalent fishing grounds.	Facilitation to move fishing equipment (boats and other requirement).  Provide a transition allowance until fishing livelihood is restored.  Provision of equivalent fishing land rights.

## 7.12 Disturbance Allowance

As guided by Section 77 (2) of the Land Act (Computation of Compensation), Disturbance Allowance of 15% shall be awarded on top of the total assessed compensation amount. This is based on the assumption that the PAPs shall be given ample time (beyond the required statutory period of 6 months) to give up their interest in the land and relocate elsewhere.

The usual practice in Uganda is that, annual crops are not compensated for because they can be harvested during the notice period, which is normally 6 months. If the notice period happens to be shorter than 6 months, affected people are entitled to a higher disturbance allowance of 30%.

## 7.13 Salvaging

All assets that can be removed, such as building materials, will be an additional benefit to PAPs. Their value will not be deducted from the assessed compensation value.

## 7.14 Preference for contact and payment based on the socio-economic census (September 2014)

Most of the PAPs (interviewed) preferred a cash compensation for their affected property/activity (96%). In light of this and considering the fact that the livelihoods within the project area are mainly subsistence based and therefore land for land compensation is preferable, but PAP preferences also need to be taken into consideration, caution needs to be exercised to make sure that the PAPs can still sustain their livelihoods – see livelihood restoration plan following in Section 8 below and that socially vulnerable persons within PAP households are protected during cash payments. This has been explained further in the section on compensation strategy and implementation above.

In addition to the above, majority of the PAP households preferred receiving communication regarding compensation through their local leaders as indicated below.

### Preferred means of contact/communication regarding compensation

Preferred means of contact/communication	Bunyamwera	Nkurunga	Total	Percentage
Radio	21	7	28	26.1
Community leader/LC	56	3	59	55
Developer's Office/Notice board	14	0	14	13
Others	05	01	06	5.6
Total	96	11	107	100

## **8 RESETTLEMENT ASSISTANCE AND LIVELIHOOD RESTORATION**

Resettlement assistance and Livelihood restoration are aimed at ensuring that income/living standards of PAPs are restored to pre-displacement levels.

IFC PS5 requires that wherever possible, the project sponsor should avoid or minimise the displacement of people by exploring alternative project designs. Where displacement is unavoidable, the sponsor should plan and execute resettlement as a development initiative that provides displaced persons with opportunities to participate in planning and implementing resettlement activities as well as to restore and improve their livelihoods.

IFC further recommends that project sponsors undertake the following actions on behalf of all affected people, including members of the host communities in which displaced people will be settled:

- Inform affected people of their options and rights concerning resettlement;
- Provide technically and economically feasible options for resettlement based on consultation with affected people and assessment of resettlement alternatives;
- Whether physical relocation is required or not, provide affected people with prompt and effective compensation at full replacement value for loss of assets due to project activities;
- Where physical relocation is necessary, provide assistance with relocation expenses (moving allowances, transportation, special assistance and health care for vulnerable groups);
- Where physical relocation is necessary, provide temporary housing, permanent housing sites, and resources (in cash or in kind) for the construction of permanent housing inclusive of all fees, taxes, customary tributes, and utility hook up charges or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors are at least equivalent to the advantages of the old site;
- Provide affected people with transitional financial support (such as short-term employment, subsistence support, or salary maintenance); and
- Where necessary, provide affected people with development assistance in addition to compensation for lost assets described above such as land preparation, agricultural inputs, credit facilities, training and employment opportunities.

### **8.1 Compensation Packages**

The resettlement and compensation packages have been designed to ensure adequate compensation for PAPs who will lose assets or livelihoods as a result of implementation of the project. These packages have been developed in accordance with the standard regulations and in consultation with the affected communities. Each PAP will have the opportunity to choose the option that best suits their circumstances.

The compensation and resettlement packages are composed of the following:

- Value of structures, land, and crops due to the claimants who will not be resettled;

- Value to resettle claimants who prefer resettlement;
- Value for cultural property for those who prefer monetary compensation; and
- Value for cultural property for those who prefer relocation of their properties based on cultural norms.

## **8.2 Compensation Categories**

The compensation categories defined below highlight the compensation scenarios that were considered:

- Permanent Loss;
- Temporary Loss; and
- Temporary Disturbance.

### **8.2.1 Permanent Loss**

Permanent loss occurs when land and/or assets are permanently transformed from their pre-Project use. For customary, freehold and mailo land, when permanent loss is agreed and is less than 20% of a household's productive assets, the household should be given a choice between cash and in-kind (replacement land) compensation. In-kind compensation is the preferred compensation (from the perspective of the Project), but cash could be allowed if households prefer with a disturbance allowance of 15% to 30%. When permanent loss is agreed and is greater than 20% of a household's productive assets, the land and/or asset owner should be offered a physical replacement of land and assets of equal or greater productivity at the time that the property is appropriated by the Project.

The "replacement option" will need to be sufficient to actually replace lost land and assets with land of equal productivity, or assets of equal value/quality/size. The "replacement option" should also be sufficient to incorporate transaction costs at local market value at the time of compensation i.e. market value plus an appropriate percentage or lump sum to account for such costs and inconvenience. Provision of a "productivity allowance", may be required, to compensate for any differences in productivity of the replacement land.

The socio-economic census survey September 2014 indicated that the total number of the affected persons is about 411. According to the land survey report of September 2014 there are 22 households out of 107 who will lose more than 20 percent of their land and 5 households will lose 100% of their land (see Annexure 2). There are two small houses located within the original channel path of the project which is now within the penstock trace since the forebay has been moved much closer to the weir in the new project design. It will be possible to shift the penstock slightly to avoid these houses during design finalisation without a material change in the cost or timing of the project. This exercise was not undertaken as part of the RAP update because of the short time available for the resubmission. It will be carried out during the process of the final cadastral survey prior to acquisition of land required for the project. There are a further five houses which are in close proximity to the penstock although not within the land corridor to be acquired for the project. Since the project element passing nearby is a penstock pipe, and not an open channel, this project element will have little or no adverse impact on these houses during construction and operation of the plant.

The change in the design of the project will avoid the physical displacement by the project activities but still offer a disturbance allowance to the afore-mentioned PAPs dating back to the valuation cut-off date.

## **8.2.2 Temporary Loss**

### **8.2.2.1 Land**

Temporary loss may occur when land is temporarily used for project activities (i.e. temporary access roads). Land and/or assets should be returned to the owner after use in as close to their original condition or as agreed by both parties.

In such instances, the Landowner will be offered a “rental (or subsistence) allowance” for the period of loss sufficient to cover the economic / livelihood loss incurred by the temporary loss of access to their land. The “rental allowance” is equivalent to the lost productive value of the land at the local market value for the year in which the compensation is paid.

At the end of the “rental period” the productivity of the land will be assessed against the productivity prior to the “rental period”. If the productive land has not been adversely affected, it will be returned to the Landowner. However, if the land has been adversely affected, then the Landowner will be offered either:

- a) In-kind compensation in the form of replacement land (hectare for hectare, quality for quality) of equal productivity; or
- b) Assistance to restore the productivity of the land.

As mentioned above, for leasehold land, the leaseholder should be reimbursed for any rent paid for the period of disturbance. The leaseholder may also be entitled to compensation for loss of crops.

### **8.2.2.2 Structures**

If temporary land acquisition produces only minor inconveniences (for example, periodic disruption of access), compensation to restore the structure to its original condition and an inconvenience allowance shall be paid. If structures themselves are temporarily acquired, or if use of the structures is precluded, alternative comparable accommodations, a rental allowance for equivalent temporary housing, or payment for constructing temporary housing of a reasonable standard can be provided. Compensation should also be paid for any moving or restoration expenses.

### **8.2.2.3 Businesses**

Temporary loss of access to facilities, suppliers, or customers can diminish business income significantly. A good practice is to pay compensation equivalent to the estimated net loss to the owner of the business. Because estimating may be unavoidable when valuers are determining losses (or incomes), compensation amounts are usually negotiated with business owners. If an affected business cannot continue in its current location, another good practice will be to provide new premises or a rental allowance for new premises (including the cost of relocating business personnel and equipment to and from these new premises).

#### **8.2.2.4 Wages**

Good practice recommends paying allowances, equivalent to regular wages, to workers temporarily losing employment. This has been taken into account by the project.

#### **8.2.3 Temporary Disturbance**

Temporary disturbance will occur in areas adjacent to project activities, that, while people may still have access and use of their property, that access and use may be disrupted by project activities (particularly land within a buffer zone or unauthorised area, land alienated at certain times during construction). Depending on the severity of disturbance, landowners may be offered a “disturbance allowance” for the period of disturbance. The “disturbance allowance” would be sufficient to cover the economic loss incurred by the disturbance.

At the end of the “disturbance” period, the productive value of the land (or other livelihood stream) will have to be assessed against the value prior to the “disturbance” period. If the land (or other livelihood stream) has been adversely impacted the Landowner will be offered:

- a) Replacement land or compensation for productivity loss; or
- b) Assistance to restore the productivity of the land.

### **8.3 Vulnerable people**

Vulnerable people are defined as people who by virtue of gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status, may be more adversely affected by resettlement assistance and related development benefits. Following the social economic survey in relation to the proposed project, the following vulnerable groups were identified:

#### **8.3.1 Poor households**

Key vulnerable groups are poor households. The poor lack savings or assets that assist in coping through hardships. Therefore, it is the poor who are particularly vulnerable to changes such as loss of land or employment opportunities. The poor tend to be more severely impacted by these changes and take longer to recover. Poor households lack the financial buffer to carry their families through difficult periods and are therefore more likely to resort to marginal activities, sell vital assets, or incur debt.

The level of savings amongst the farming community is extremely low and this has prevented investment in agricultural modernisation. The poverty is a ubiquitous phenomenon in the entire PAI

#### **8.3.2 Women headed households**

Women headed households are considered a vulnerable group for special consideration within the Livelihood Restoration Plan (LRP). Women are typically more vulnerable to livelihood changes due to fewer available education, employment and training opportunities afforded to them and a higher reliance on agricultural activities. Women tend to be employed in less lucrative economic sectors and have substantially less access to inputs such as land, agricultural advice, seed and credit. As such, they are often the first to suffer from the effects of economic displacement.

### 8.3.3 Dependants

Dependants are defined as family members below the age of 16 and above the age of 60 years. The elderly and the young contribute less to household income and are likely to be more susceptible to health problems. The cost of medical treatment has the potential to be a significant burden on household livelihood. Like the rest of Uganda, the project affected area has a fairly high dependency rate.

### 8.4 New Housing

Compensation for structures will cover full replacement cost exclusive of depreciation and inclusive of all fees (such as construction permits and land title charges) and labour costs. Construction of permanent houses will include all fees, taxes, customary tributes or as required (see Table 7.2).

### 8.5 Alternative Relocation Sites

In line with IFC PS 5 requirements, resettlement sites must be chosen through consultation with all displaced people and host communities. Resources and plans for land use must be evaluated. Site selection and the shelter and infrastructure options provided at the new sites should reflect both the preferences of the affected population and the best opportunities for timely restoration of livelihoods. The two most critical concerns in selection of a resettlement site are "location and community preservation".

The selection of resettlement or relocation sites that provide people with reliable access to productive resources (arable and grazing land, water, and woodlands), employment, and business opportunities is key to the restoration of livelihoods.

However for the current project, the change in the design of the project will avoid the physical displacement by the project activities but still offer a disturbance allowance to the aforementioned PAPs dating back to the valuation cut-off date.

### 8.6 Site Selection Criteria and Preparation

Nevertheless, should the need arise in line with OP 4.12 requirements, resettlement options should avoid breaking up communities, because the maintenance of the social networks linking members of the affected communities may be critical to the successful adaptation of those communities to their new circumstances. The Table (8.1) below illustrates some resettlement options that address these concerns.

**Table 8.1 Options for Physical resettlement**

<b>No Resettlement</b>	<b>On-site Resettlement</b>	<b>Partial Resettlement</b>
The option of no resettlement should be considered if alternatives are too expensive or IFC policy objectives cannot be met.	Where the population densities are relatively low, it may be possible to consolidate members of an affected community in a single area thus making room for project facilities without having to relocate the community to another site.	Where the whole site is not required for project facilities, it may be possible to minimise or isolate land take, as a result, only a fraction may require physical relocation.

<b>Resettlement to Nearby and Multiple sites</b>	<b>Resettlement to Margins of Developed Areas</b>	<b>Resettlement to Distant Sites</b>
<p>Where full resettlement is necessary, the impact of displacement can be minimized by relocating affected people to several small sites near the affected area.</p> <p>The extent to which this type of resettlement is possible or desirable depends on the structures of the community and on the land market.</p>	<p>The margins of developed areas offer cheaper land than more central locations but normally still have access to utilities and infrastructure.</p>	<p>Cost of Land and its availability considerations often favour the selection of resettlement sites far from project facilities, but the disadvantages of such sites include lack of employment and business opportunities and of wider social support network; the cost of infrastructure provision is likely to be high; and social services will likely have to specially provided.</p>

In the interest of maintaining the social networks and avoiding breaking up of communities, the on-site resettlement option was considered as the best option for the project by the PAPs that will be affected by the project activities and compensated for land for land.

### **8.7 Physical Relocation of Graves**

Based on the survey and valuation exercise of 2013 – Annexure 3, eight (8) earth graves will have to be re-located prior to commencement of project activities. There is likelihood that this will be preceded by the performance of some traditional rituals.

It is customary that graves are respected with high esteem and their relocation has to be undertaken with due respect to local beliefs and customs. At the community consultation meeting with the grave owners, it was agreed that where possible, the lay out will be adjusted to avoid graves but in case such avoidance is not possible, owners of graves will compensated by the project after performing the traditional rituals.

### **8.8 Disturbance Allowance**

A Disturbance allowance of 30% shall be awarded on top of the total assessed amount. This is based on the assumption that the PAPs shall not be given ample time to give up their interest in the land and relocate elsewhere.

The usual practice in Uganda is that annual crops are not compensated because they can be harvested during the notice period, which is normally 6 months. If the notice period happens to be shorter than 6 months, affected people are entitled to a higher disturbance allowance higher than the normal disturbance allowance of 15% of all compensation. This increase by 15% of the disturbance allowance is therefore supposed to cater for the additional loss caused by the potential inability to harvest annual crops.

### **8.9 Cultural Heritage Management Plan**

According to IFC PS 8 cultural heritage refers to the following;

- Tangible forms of cultural heritage, such as tangible moveable or immovable objects, property, sites, structures, or groups of structures, having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values;

- Unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls; and
- Certain instances of intangible forms of culture that are proposed to be used for commercial purposes, such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles.

The objectives of IFC PS 8 are to preserve and protect cultural heritage by avoiding, reducing, restoring where possible, and in some cases, compensating for the adverse impacts that a project might cause to cultural heritage.

During the socio-economic and census survey no archaeological sites were identified within the proposed project area.

### **8.10 Social and community programmes**

Often community development programmes are identified based on the baseline information provided in the RAP i.e. where can the project provide assistance e.g. in the sectors of water and sanitation, health, education etc.

A number of social and community development programs on how the proposed project can assist the community have been identified and are discussed below, based largely on the community priorities of the area in which the proposed Sindila SHP is to be located.

It is important to note however, that prior to initiating planned community income improvement/or development strategies and/or programmes, the project developer should reconfirm that these strategies are still feasible and generally acceptable to the affected persons. For example, some affected persons may have opted for jobs in state enterprises during the planning phase, when such jobs were presumed to be available. However, when implementation starts, the jobs may no longer be available due to changes in economy, project planning, layout and design.

It is also imperative to first ensure that the selected programme can still take place as there are often other implementing agencies e.g. NGOs, CBOs that might implement suggested programmes, and therefore to avoid duplication, the project must keep track of this by working closely with the sub-county and the district as they always know what is taking place on the ground. Based on current planning therefore, the following community development plans/programmes have been identified as is relevant to the proposed Sindila SHP:-

#### **Provision of employment**

Employment (public or private) can be an effective way of restoring and improving incomes, in effect creating assets in the form of skills and human capital. The promise of jobs without providing other options is not good practice. Similarly, providing employment training without access to employment cannot be construed as adequate rehabilitation.

Economic opportunities and job creation are the most important benefits of the project during the implementation period.

All of the villages in the project area have inadequate employment opportunities. However, one of the concerns with regards to employment opportunities with regards to the proposed Sindila SHP is the lack of a skilled labour force. Even though there is a young available labour force in the area, majority of them are unskilled. The project will require especially skilled construction

workers. Therefore, the project developer and selected contractor should start planning for certified training programs in order to create a skilled labour force in the project area. It is critical to give preferential treatment to those who have been certified locally over the migrant workforce; however, it primarily depends on the needs of subcontractors and capability of the certified local work force.

Work opportunities are not only limited to employment at the construction area. In nearby villages, there might be some active cooperatives dealing in transportation services and development which may take the opportunity to generate income through providing some services needed during construction. However, this opportunity depends on appropriateness of the cooperatives with regards to meeting the requirements of the contractors.

### **Improvement of the Health services**

According to the 2012/2013 Bundibugyo District statistical abstract, the district had 1 hospital, 31 health centres, 8 clinics and 42 drug shops. The hospital and health centres were government-aided while clinics and drug shops were privately owned.

The socioeconomic census survey results of September 2014 revealed that the pre-dominant health condition suffered among the PAP household members was malaria (62%) with near trends between the project affected areas, Bunyamwera (61%) and Nkuranga (64%). The levels of reported HIV/AIDS known cases within the households were generally low (1%). However, ulcers (5.6%), polio (3.7%) and TB (3.7%) were relatively higher as compared to the other health conditions (other than malaria) reported in the households.

A possible livelihood restoration and development strategy here is to improve the health services in the project area by providing training for village midwives, primary health care centres, child spacing/family planning and counseling services while working together with the HIV/AIDS organizations in the project area.

- **Improvement of water and sanitation**

According to the BIDP Baseline survey conducted in 2005, the main source of portable water in Bundibugyo District was rivers. The other prominent water sources in the district included piped water supplies, unprotected sources, and protected springs.

The socioeconomic census survey indicated that most of the PAP households used unprotected water sources like rivers and streams (98%). Few PAPs down the valleys had alternative protected water sources. PAP households in Bunyamwera did not have access to a protected water source at all. The rivers (Sindila and Ndugu) appear to be the main water sources used. All efforts should be undertaken to ensure that access to these vital sources is not obstructed. The relatively high level of diarrhoea and typhoid observed is associated with unsafe water sources. Some households walked for over 5kms to the nearest water source (21%).

A possible livelihood restoration and development strategy here is to provide clean water supply and sanitation training among the project affected persons.

### **Support for the local economy**

According to the socio economic survey of September 2014 most of the PAP household heads were engaged in subsistence farming as the primary employment (68%), Few were own account workers/business owners ( 0%) and relatively fewer were regular paid public workers (5%).

The socio economic census survey also indicated that land remains the critical livelihood asset in this project affected area; as other alternative livelihood options are very few.

A possible livelihood restoration and development strategy here may include extension of agricultural services by providing various inputs, such as cash assistance, replacement of agricultural land, seeds, and fertilizers to support local livelihoods.

### **Improvement in electricity supply**

Linked to the above, as part of corporate social responsibility (CSR), the project developer could allow the major enterprises and institutions such as the Health Centre of the Sindila Sub County to be linked to the electricity generated. However, it is likely that this can only be determined by the electricity distributor (UETCL) once the developer has generated the electricity and supplied it to the national grid, and therefore this community development plan might not be feasible.

### **Improvement of the infrastructure (roads)**

The PAI is linked via the Bundibugyo – Lamia road through a district feeder road traversing through Bubandi to Ndugutu and Sindila Sub-counties. Within Sindila Sub County, several community access roads exist. The major aim for establishing community roads in villages is to link the communities living on the mountain slopes with those in the low lands, and to extend social services such as education, health, and administration to communities within the mountainous terrain. Within the PAI, there is only one motorable track of 1.5km linking Kaghughu primary school to Butama trading centre (off the Bunyangule – Butama access road as presented).

The poor condition of the roads in Bundibugyo district and in particular the causeway across the Sindila River will be worked on to provide access to the Bunyangule area. The community will also benefit from the CSR initiatives that will be associated with the project.

### **Improvement of the education sector**

According to the 2012/2013 Bundibugyo District statistical abstract, the district had 119 primary schools, fifteen (15) of which were privately owned and 104 were government aided. The district was also served by fourteen (14) secondary schools, six (6) of which were privately owned and eight (8) eight schools government owned. The district boasted of three (3) three tertiary institutions, one (1) of which was privately owned.

According to the socioeconomic survey conducted in the PAI September 2014, the literacy and education levels among the PAP household members indicated that most of the household heads could read and write in any language; easily (56%) and with difficulty (16.8%). Nearly a third of the household heads could not read and write at all (28%). Over half of the households head attained primary level education (57%) while 17% had never attended formal education at all; indicating relatively low level of education. Only 18.7% had attained some level of tertiary education.

A possible community development strategy here with regards to improving the education sector within the project area, is for the developer of the Sindila SHP to provide scholastic materials, improve and/or construct some permanent school structures.

### **Necessary trainings**

In addition to some of the recommendations above, the developer could also institute some necessary training pertaining to: -

- Advising PAPs on how to invest cash/compensation fees to gain a return similar to agricultural income from land occupied by the project.
- Increasing people's income by setting up credit groups and improving access to markets as well as marketing of goods and services produced by resettlers.
- Improving health services by providing training for village midwives, primary health care centres, and child spacing/family planning counseling while working together with the HIV/AIDS organizations within and/or near the project area.
- Provision of sanitation training and clean water supply around the project area”

### **8.11 Land Acquisition from PAPs**

Land at the project site is owned under customary tenure and local people do not have any documentary evidence for land ownership. So, matters like acquiring copies of registered land titles for PAPs, obtaining signed transfer and mutation forms and processing land titles for PAPs to show the remaining portion of their land shall not apply in this case. Outright purchase/ compensation of the affected area and securing a full-proof agreement detailing the acquisition of the untitled land will have to be considered.

Currently, the documents below are considered to be relevant and pertinent to the land acquisition process for the project:

- Purchase/ Compensation Agreements;
- Powers of Attorney; and
- Co-ownership Agreements (including spouse and children).

Following land acquisition for the project, the developer (Butama Hydro electricity Company Limited) may decide to process a land title for land that will have been permanently acquired for the establishment of project infrastructure.

### **8.12 Security of Land Tenure to the PAPs**

This is particularly applicable to the PAPs who will prefer land for land/structure for structure compensation. To guarantee security for the alternative land/structure provided, a full-proof agreement detailing the acquisition of untitled land/structure will be entered into between the affected PAPs and the people who will offer them land/construct for them new structures, with the developer (Butama Hydro electricity Company Limited) witnessing the transactions. This mode of security has been recommended based on results from the preliminary site visit and secondary data.

## **9 GRIEVANCE REDRESS MECHANISM**

Grievances are any complaints or suggestions from the project affected persons about the way a project is being implemented. Grievances and complaints could arise with regards to land expropriation, resettlement, activities associated with the construction project activities, social issues or any other subject related to the project. For effective implementation of the project, grievances and complaints should be redressed throughout the lifetime of the project.

The Grievance system will operate within all villages affected by the project. It is important that the grievance committee is fully accessible to all PAPs with grievances. In addition to establishing formal procedures, grievance mechanisms should also work through existing traditional processes.

### **9.1 Purpose of the Grievance Redress Mechanism**

The grievance redress mechanism is aimed at;

- Creating and maintaining trust with affected persons and community stakeholders;
- Avoiding the negative consequences of failure to adequately address grievances; and
- Identify and manage stakeholder concerns and thus support effective risk management.

### **9.2 Types of Likely Grievances and Disputes**

In practice, the grievances and disputes that are most likely to arise during the implementation of a compensation and resettlement program include the following:

- I. Misidentification of assets or mistakes in valuing them.
- II. Disputes over plot limits, either between the affected person and the project, or between two neighbours.
- III. Disputes over the ownership of a given asset (two individuals claim to be the owner of this asset).
- IV. Disagreement over the valuation (either the unit rate applied or the count) of a plot or other asset.
- V. Successions, divorces, and other family issues, resulting in disputes between heirs and other family members, over ownership or ownership shares for a given asset.
- VI. Disagreement over resettlement measures, for instance on the location of the resettlement site, on the type or standing of the proposed housing, or over the characteristics of the resettlement plot.
- VII. Disputed ownership of a business (for instance where the owner and the operator are different persons), which gives rise to conflicts over the compensation sharing arrangements.
- VIII. Failure to reinstate immovable assets after temporary use such as occurs during establishment of easements or property rental.
- IX. Disruption or damage to water sources and infrastructure.
- X. Loss of income to traders due to loss of commercial facilities or decrease in customers.
- XI. Damage to unexpropriated assets such as land, crops and trees.
- XII. Health problems, injuries and accidents.
- XIII. Damage to utility infrastructure.
- XIV. Increase in traffic loads.

### **9.3 Grievance Redress Framework**

In line with IFC requirements, a three-stage grievance redress mechanism consisting of Village Grievance Committees, the District Land Board and Courts of Law to resolve disputes and complaints arising during the project implementation, has been proposed. Each of these is discussed in detail in Sections 9.3.1 – 9.3.3 that follow.

#### **9.3.1 Village Grievance Committees**

Grievances will be filed by the person affected by the project with the Village Grievance Committees, which will act within fifteen (15) days on receipt of the grievance. Village grievance committees with the following membership will be established to resolve complaints using customary rules:-

- The LC I Chairman of the affected village;
- Opinion leaders;
- Representatives of the PAPs (female, male and vulnerable); and
- A representative from the developer/community liaison.

The village committee should be able to deal with the grievance within fifteen (15) days of receipt of the complaint from the affected person. Complaints by the PAPs on compensation or property loss shall be communicated verbally or in writing to the grievance committee.

#### **9.3.2 District Land Board**

If no understanding or amicable solution can be reached, or if the affected person does not receive a response from the village grievance committees within 15 days of the registry of the complaint, he/she can appeal to the District Land Board (DLB) which should act on the complaint/grievance within 15 days of the day of its filing. The DLB shall invite the complainant to produce documents that support the claims then it decides within one week.

#### **9.3.3 Courts of Law**

If the affected person is not satisfied with the decision of the DLB, he/she may submit the complaint to a court of law as a matter of last resort. Affected persons will be exempt from all administrative and legal fees incurred pursuant to the grievance redress procedures. All complaints received in writing (or written when received verbally) will be documented.

### **9.4 Institutional arrangement for Grievance Redress**

The objective of the grievance committees is to define the roles and responsibilities for the implementation of the RAP and ensure that activities are undertaken in a coordinated manner. The grievance committees will have authority to ensure coordination and proper implementation through monitoring, grievance processing, and public information and consultation activities.

The grievance committee will record all grievances in a register which should be updated weekly and all new grievances discussed at the next village committee meeting. The register should include the nature of the grievance, the date, actions taken and resolution.

Grievance committees will resolve all grievances and provide feedback to residents within two weeks. If more time is required, this should be communicated clearly and in advance to the

concerned resident. The status and resolution of the grievance should be communicated orally, and recorded against the original grievance entry in the register. For cases which are not resolved within the stipulated timeframe, detailed investigations should be undertaken and the results discussed in the monthly meetings with the affected residents.

The grievance committee will set up a systematic process of recording grievances and provide feedback in terms of resolution. Access to making entries into the database should be restricted to the grievance committee but the general community should be able to view the database to see the status of their complaints.

The grievance committee will also separate all issues reported into different categories in order to review and resolve all issues more efficiently as follows:

- Compensation for housing, land and assets related issues;
- Quality of replacement housing/amenities (water supply, sanitation etc) related issues;
- Access to public/social services (healthcare, school, church, mosques and other local facilities); and
- Livelihoods restoration, employment related issues and other.

The grievance committee will organise community meetings involving all the affected persons i.e. resettled to provide updates on the grievance procedure. Grievances that will not be entertained by the grievance committee should also be clearly defined.

The grievance committee will work together with available NGOs in the area for consultation and monitoring activities. Verbal communication will be particularly important given the low literacy levels in the project area.

The grievance committee will provide regular updates on the status of grievances via the database, including reasons for delay, if any. This update should be provided on a weekly basis.

Village grievance committees will serve as the representative of the PAPs. It will also include LCI chairpersons, elders and representatives of PAPs vulnerable groups and project preventative person.

## 10 RAP BUDGET

In line with IFC requirements, it is essential that all costs be estimated carefully and included in a detailed RAP budget. Without an accurate assessment of the costs of land acquisition, compensation for lost assets, and physical displacement, project planners cannot determine the real cost of project design alternatives.

The budget so far computed for implementation of the RAP by an external agency amounts to UGX Shillings 288,856,000 (*two hundred eighty eight million, eight hundred and fifty six thousand*) of which 254,856,000 (*Two hundred fifty four million, eight hundred and fifty six thousand*) (see Annexure 3) is the total valuation combined for land, crops, trees, buildings/development, earth graves and disturbance allowance, and 34,000,000 (*Thirty four million*) for support to Environmental and Livelihood Restoration initiatives.

## **11 ORGANISATIONAL RESPONSIBILITY AND IMPLEMENTATION ARRANGEMENTS**

In order for the RAP to be implemented successfully, a management system that is made up of the following entities will have to be put in place:

### **11.1 Resettlement Steering Committee**

The resettlement steering committee has a management function in resettlement planning, implementation, monitoring and funding and represents all the agencies responsible for facilitating the RAP process. It is the forum where particularly strategic, high-level issues needing resolution (including financial, schedule related and reputational risk issues) should be raised and dealt with. The resettlement steering committee is also responsible for making policy-related decisions based on the legal framework contained in the RAP, the project's internal standards and operating procedures, and international policies.

#### **11.1.1 Roles and Responsibilities**

Key responsibilities of the resettlement steering committee include:

- Providing an advisory role to the project resettlement unit, which includes resolving internal and external resettlement issues, monitoring the budget etc;
- Overseeing ethics compliance and governance issues and ensuring that the resettlement process is managed fairly and transparently and is free of corruption or bribery etc;
- Overseeing compensation allocation and disbursement mechanisms;
- Monitoring the development/progress of the resettlement, from project construction through to operation, so that any resettlement issues are addressed in an efficient and effective manner;
- Instigating independent external resettlement reviews, when necessary;
- Responding to implementation problems identified in internal and external monitoring reports;
- Ensuring adequate consultations with all displaced persons affected by the project and other stakeholders; and
- Ensuring adequate information sharing with the Project Resettlement Unit on processes and decisions taken.

#### **11.1.2 Composition**

The resettlement steering committee will be composed of Project senior management and relevant community members. In addition, a community representative will be part of the resettlement steering committee in order to instigate an official connection to the affected communities. To foster further transparency, representativeness and accountability, NGO representatives will also be part of the resettlement steering committee and be responsible for

ensuring that the needs and opinions of affected community members are meaningfully considered during any decision making process.

## **11.2 Project Resettlement Unit**

The resettlement steering committee will, to an extent, be the face of the resettlement process for the affected people and communities and will be primarily responsible for the on-the-ground coordination of the RAP implementation process.

### **11.2.1 Key responsibilities of the project resettlement unit include:**

- Coordinating and overseeing the resettlement process and all those participating in it;
- Interfacing with the project in relation to engineering options, the timing/phasing of the resettlement process etc;
- Facilitating all consultation and engagement activities with affected communities;
- Finalising the resettlement package;
- Budget control and formulating and operating compensation disbursement mechanisms;
- Ensuring conflict resolution, addressing grievances and alerting the resettlement steering committee to any additional problems;
- Providing particular support and assistance to vulnerable groups;
- Facilitating resettlement assistance provisions and livelihood restoration programmes to ensure that local needs are met; and
- Guiding the resettlement monitoring and evaluation process and reporting to the resettlement steering committee.

## **11.3 Community Representation**

Community representation from the affected communities will include for both affected PAPs of the community members (men, women, vulnerable persons and youth). There should also be a clear and transparent selection of the community representatives and selection criteria will be based on the following factors:

- They must be selected by the community members of the affected area;
- They must be resident of the affected area;
- Be fairly well educated and well known in the community; and
- They must be part of the affected resettlement process.

A mechanism will also be established to enable community representatives to be replaced if they prove unable to perform and fulfil their roles in an adequate manner. However to enable

the community representatives do their work properly they should be facilitated with all the necessary requirements that include but are not limited to:

- A daily cash allowance for assistance with the resettlement process;
- Materials and equipment;
- Training on their roles and responsibilities;
- Specific minimum targets/requirements against which they will be assessed; and
- To sign and adhere to a code of conduct, which sets out criteria for integrity, transparency, objectivity, openness and accountability.

#### **11.4 NGO'S around the affected area**

The NGO representative sitting on the resettlement steering committee and the project resettlement unit, supported by other members of this NGO, should not only facilitate clear and transparent information provision and communication, but should also play a key role in the affected community support. In particular, the NGO should facilitate the community representative selection process, lead capacity building process in the affected community, build trust with the affected communities and play a central role in the implementation of the livelihood restoration and development programmes committed to in the RAP.

##### **11.4.1 Importance of NGO'S in RAP implementation**

NGOs are fundamental in the success of a resettlement process. As indicated above, the project should specifically employ an NGO to contribute to the resettlement process and ensure its effective delivery. NGOs roles in RAP implementation include the following:

- Gathering and sharing information, which may help to avoid potential problems when implementing the RAP;
- Providing information that may be useful for the RAP monitoring and evaluation process;
- Developing information dissemination materials and promoting effective community participation;
- Strengthening local institutions;
- Delivering services to inaccessible communities and vulnerable groups in a cost effective manner; and
- Planning and implementing livelihood restoration and development plans in a sustainable manner.

#### **11.5 Traditional and opinion Leaders**

Traditional and opinion leaders are critical to the success of the resettlement process of the RAP. Traditional and opinion leadership also plays an important role in conflict resolution, which may be important for the interaction between the affected community members and the

management of the project. Traditional and opinion leadership will receive some orientation in the RAP process on issues that may arise, their expected roles prior to implementation of the project, among others.

### **11.6 Project Community Liaison Officer**

A Community Liaison Officer(s) will also be employed by the project and will be responsible for direct engagements with the community, dealing with day-to-day community-related issues and concerns, running the grievance mechanism and also monitoring the resettlement process on the ground.

### **11.7 Community Valuation Officer**

During the RAP implementation process a Community Valuation Officer will be appointed by the community with the endorsement of the Chief Government Valuer (CGV) to oversee all land valuation and survey work. More specifically, the Community Valuation Officer will be responsible on the following:

- Provide advice on and explaining the valuation process to the affected communities;
- Providing valuable local knowledge on land tenure and property rights to the affected communities;
- Ensuring the community has meaningful representation on the project resettlement unit; and
- Interfacing with any community legal representatives as required by the project.

### **11.8 Grievance mechanism**

An effective grievance mechanism is fundamental not only to facilitating an effective and sensitive resettlement process, but also to ensuring that projects can proceed on schedule, without delays induced by affected community disaffection. A detailed elaboration of the grievance mechanism is provided in Section 9 above. Therefore the grievance committee will focus on the following during the implementation process:

- Recording grievances, both written and oral, of the affected people, categorising and prioritising them, and providing solutions within an agreed timeframe;
- Discussing the grievances on a regular basis with the project resettlement unit and identifying decisions/actions for issues that can be resolved at that level;
- Informing the resettlement steering committee of any more serious issues; and
- Reporting to the aggrieved parties about the developments regarding their grievances and the decisions of the resettlement steering committee and project resettlement unit.

## **11.9 Resettlement schedule**

In order to facilitate a detailed and transparent monitoring and evaluation processes, careful planning of the timings associated with the implementation of the Project's resettlement process will be essential to its success. Table 11.1 provides an outline of the implementation plan that will guide the next stages of the project's resettlement process. The RAP anticipates that the project implementation schedule will consist of three phases namely preparation, implementation and post implementation.

**Table 11.1: Sindila MHP RAP implementation schedule**

Task	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Year two	Year three
Disclose and consult PAPs on draft RAP														
Establish institutional frame work														
Establish grievance mechanism committee														
Community consultation programmes (ongoing)														
Negotiation for replacement sites														
Engage community based organisations														
Confirmation of the replacement sites														
Notification for entitlements														
Household level sign off on entitlements project														
Notification of demolition														
Payment of compensation to PAPs														
Payment of disturbance allowance														
Plan for livelihood restoration														
Establish linkages with local government programmes														
Contractor excavation work														
Grievance mechanism and procedure														
Training programmes														
Performance monitoring														
External evaluation (quarterly for two years)														

## 12 MONITORING AND EVALUATION PLAN

In order to ensure a smooth implementation of the Resettlement and Action Plan and to maximise its relevance in addressing the needs of the PAPs, the implementation of the plan will be monitored throughout the whole process.

The Project's monitoring and evaluation plan will have three key components which include performance monitoring, impact monitoring and external audits. These three components will constitute two parallel aspects:

- **Internal monitoring**, consisting of performance monitoring and impact monitoring, spearheaded by the project.
- **External monitoring**, consisting of external audits, carried out by an independent third party.

Objectives for monitoring and evaluation of the RAP include the following:

- To provide the developer with feedback on RAP implementation and to identify problems and successes as early as possible to allow timely adjustment of implementation arrangements; and
- To ensure that the resettlement process is being managed in line with the Project's objectives and desired outcomes, as well as with the requirements of affected stakeholders.

### 12.1 Performance Monitoring

This is an internally driven continuous process aimed at ascertaining the RAP implementation milestones against a set of certain actions. The project performance milestones will include the following:

- Public meetings held;
- Grievances redress procedures in place and functioning;
- Compensation payments disbursed;
- Housing lots allocated;
- Housing and related infrastructure completed;
- Relocation of people completed;
- Livelihood restoration and development activities initiated; and
- Monitoring and evaluation reports submitted.

### 12.2 Impact Monitoring

This is aimed at assessing the lasting change associated with the RAP implementation process. The change is related to the prevailing conditions prior the RAP being implemented. The monitoring can be done by the management of the project or by credible third parties. Ideally this process should go on for a number of years beyond the lifetime of the RAP as some impacts particularly those to do with income and livelihood restoration efforts and development initiatives may manifest themselves later.

### 12.3 Completion Audit

This completion audit will be carried out by a third party to establish whether the project has implemented all activities needed to ensure compliance with resettlement commitments defined in the RAP and applicable policies, and whether resettlement and compensation can be deemed complete.

Among the key objectives of the evaluation or completion audit are the following:

- To determine whether the developers efforts to restore the living standards of the affected population have been properly conceived and executed;
- To verify that all physical inputs committed in the RAP have been delivered and all services provided;
- Evaluate whether the mitigation actions prescribed in the RAP have had the desired effect; and
- Measured socio-economic status of the affected population including the host population against the baseline conditions of the population before displacement, as established through the census and socio-economic studies.

At such time as affected peoples' quality of life and livelihood can be demonstrated to have been restored, the resettlement and compensation process can be deemed "complete".

The indicators that will be a key reference point as part of the monitoring and evaluation exercise are indicated in Table 12.1

**Table 12.1: RAP Implementation Indicators**

SUBJECT	INDICATOR	MEANS OF VERIFICATION
Land	Acquisition of land	<ul style="list-style-type: none"> <li>• Size of land acquired by PAPs</li> <li>• Replacement of agricultural land.</li> </ul>
Household	Changes of household structure	<ul style="list-style-type: none"> <li>• New houses constructed</li> <li>• Status of vulnerable households</li> <li>• Size of the households</li> <li>• Relationship between household head and other family members</li> <li>• Gender distribution and marital status</li> <li>• Number of families that have been moved.</li> </ul>
Health status	Changes to health status	<ul style="list-style-type: none"> <li>• HIV/AIDS awareness programmes</li> <li>• Access and utilisation of health care services.</li> <li>• Mortality rates.</li> <li>• Educational programs available to prevent diseases.</li> <li>• Nutritional status of resettled households.</li> </ul>
Access to services	Changes to access of services	Travel time to nearest school, health centre, church, shop, water supply and change in social networks.
Women status	Current state of women	<ul style="list-style-type: none"> <li>• Landholding status.</li> <li>• Engagement of women in project-related</li> </ul>

SUBJECT	INDICATOR	MEANS OF VERIFICATION
		activities. <ul style="list-style-type: none"> <li>• Participation in training programs.</li> </ul>
Population	Population influx	Number of people from outside the project area.
Compensation and Rehabilitation	Compensation and Rehabilitation of PAPs	<ul style="list-style-type: none"> <li>• Compensation records indicating PAPs and amount of money received.</li> <li>• Land for land compensation.</li> <li>• Number of new houses constructed.</li> <li>• Number of PAPs compensated</li> <li>• Amount of money disbursed.</li> <li>• Number of PAPs not compensated in prescribed time.</li> <li>• Reasons for not compensating some of the eligible PAPs timely.</li> <li>• Planned projected disbursements for the next quarter.</li> <li>• PAP satisfaction level with the resettlement and compensation procedures.</li> </ul>
Restoration of livelihood activities	Homestead earning capacity	<ul style="list-style-type: none"> <li>• Access to land and water.</li> <li>• Stocks of money or assets in liquid (cash) form.</li> <li>• Rights or claims derived from group membership.</li> <li>• Infrastructure and resources created through economic production.</li> <li>• Quantity and quality of labour available.</li> <li>• Number of PAPs who have reconstructed new settlement structures.</li> <li>• Reasons for not reconstructing new settlement structures if any.</li> <li>• Number of businesses restored.</li> <li>• Reasons for not re-establishing businesses if applicable.</li> </ul>
Public	Public involvement	<ul style="list-style-type: none"> <li>• Community level meetings.</li> <li>• Participation of local leaders and the community in resettlement process.</li> <li>• Grievance management.</li> </ul>
Grievance	Grievance management	<ul style="list-style-type: none"> <li>• Number of grievances received.</li> <li>• Number of grievances resolved (at what level).</li> <li>• Number of complaints reported to other government oversight bodies and outcomes including how each of the grievances was resolved.</li> <li>• Number of grievances referred to Uganda Courts of Law.</li> <li>• Number of outstanding grievances and reasons for not resolving them.</li> </ul>
Legal documents	Custody of legal documents	<ul style="list-style-type: none"> <li>• Number of land title deeds or any other land ownership documents received.</li> <li>• Numbers of land titles or any other land ownership documents returned to owners.</li> </ul>

SUBJECT	INDICATOR	MEANS OF VERIFICATION
		<ul style="list-style-type: none"> <li>• Number of people given possession and legal papers.</li> </ul>
Vulnerable PAPs	Resettlement of vulnerable PAPs	<ul style="list-style-type: none"> <li>• Number of vulnerable PAPs resettled.</li> <li>• The kind of special assistance provided to vulnerable PAPs.</li> </ul>
Consultation	Consultation programme operation	<ul style="list-style-type: none"> <li>• Number of local committees established.</li> <li>• Number and dates of local committee meetings conducted and types of issues raised in these meetings.</li> <li>• Involvement of local committees and NGOs in the project's planning and development</li> </ul>

## 13 Conclusions and Recommendations

### 13.1 Conclusions

A number of steps have been undertaken to identify the social impacts related to land acquisition associated with the proposed Sindila MHP. The complete socio-economic survey concluded that the Sindila MHPP. The socio-economic census survey (September 2014) concluded that the total number of the affected persons is 411 and 107 households. Of the 107 households, 22 households will lose more than 20 percent of their land and 5 households will lose 100% of their land. There are two small houses located within the original channel path of the project which is now within the penstock trace since the forebay has been moved much closer to the weir in the new project design. It will be possible to shift the penstock slightly to avoid these houses during design finalisation without a material change in the cost or timing of the project. This exercise was not undertaken as part of the RAP update because of the short time available for the resubmission. It will be carried out during the process of the final cadastral survey prior to acquisition of land required for the project. There are a further five houses which are in close proximity to the penstock although not within the land corridor to be acquired for the project. Since the project element passing nearby is a penstock pipe, and not an open channel, this project element will have little or no adverse impact on these houses during construction and operation of the plant. The change in the design of the project will avoid the physical displacement by the project activities but still offer a disturbance allowance to the afore-mentioned PAPs dating back to the valuation cut-off date.

A majority of PAPs derive their livelihood from agriculture. Land is still the most precious asset that the people in the area possess and any intervention that disturbs their land could affect their livelihoods and poverty levels. Replacement of agricultural land in the same area with location advantages and other factors which are at least equivalent to the advantages of the old sites is largely possible because land is available but this has to be done through consultation with PAPs. Land for land compensation is therefore the best alternative recommended for the Sindila MHP, however, as indicated in Section 7 above, majority of the PAPs prefer monetary compensation. The compensation review committee will need to review this on a case by case basis so as to ensure that PAP livelihoods are sustained, even though PAP preferences must be majorly considered. Cash in hand will however, not be supplied. All the PAPs desiring to receive monetary compensation will open up bank accounts with, where necessary, the assistance of the project developer at nearby registered banks, into which the compensation funds will be channelled.

It is imperative that during implementation of this RAP, special attention is paid to vulnerable PAPs – identified as, persons who, by virtue of their gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status, may be more adversely affected by resettlement than others and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits. This is because the resettlement process may potentially result in the risk of vulnerable people losing the support of their benevolent and social networks especially where cash compensation is opted for by majority of the PAPs than land for land compensation – as is the case with the Sindila MHP. Therefore, this calls for careful screening to help vulnerable groups improve or at least re-establish their lives and livelihoods. In addition, for displaced people, past experience elsewhere in Uganda has shown that cash compensation impacted badly on the household's long-term economic sustainability. This proves particularly detrimental to women and children in the household. To avoid potentially vulnerable households opting for cash compensation if they are obviously unable to manage the sudden influx of cash, the following provisions are proposed:

III. Establishment the Compensation Review Committee and;

- IV. Any physically or economically displaced household that preliminarily opts for cash compensation instead of resettlement would be reviewed for sustainability by this Committee; only once the Committee is satisfied that the household indeed has a project that ensures long-term sustainability of the cash compensation option, will the household be declared eligible for cash compensation.

For the RAP to be successful there will be need for continued monitoring and evaluation. This will ensure that arising issues are properly addressed. At a minimum, monitoring activities proposed include, but will not necessarily be limited to the following:

Assess resettled" satisfaction against the following criteria:

- Site location and layout, house design, house construction;
- Agricultural plots (fertility, size, assistance);
- Public services (water, power, health and education);
- Livelihood restoration (are they better or worse off?); and,
- Check access of resettled people to ownership (actual delivery of title deeds) for the resettlement plots and houses.

For the compensated:

- Review and assess the compensation process and delivery of entitlements and,
- Review and assess compensation rates against the "full replacement value" requirements, and check whether those who were compensated for lost structures were able to rebuild similar buildings.

The developer will provide both the financial input into the resettlement process as well as significant additional managerial and technical expertise. Following approval of the updated RAP, the developer will constitute a resettlement unit for RAP implementation. The resettlement schedule for land acquisition, structure demolition and relocation will be coordinated with the developer. The implementation of this RAP will be undertaken by an a party chosen by the developer for a period of 36 months.

Community consultation and participation of PAPs in resettlement preparation and planning is a fundamental requirement, it requires that the project developer facilitates the formation of a grievance redress committee consisting of the representatives of the PAPs and local councillors. One of the tasks of this Committee is to ensure the proper monitoring of compensation payments.

### **13.2 Recommendations**

- In line with the requirements of IFC PS 1, stakeholder engagement and consultation is an ongoing process so the developer needs to involve all affected stakeholders at all stages of project development.
- The developer should compensate all the affected persons in a timely manner using the prevailing market rates.
- Before resettlement, the PAPs should be mobilized and counseled both socially and economically to avoid undue social and economic disruptions. Where applicable, health experts should be involved in counseling to create awareness within the community on issues relating to Health using the existing Government Health Centres.
- Compensation to PAPs should be made before demolition commences. A minimum of one month's notice should to be given to the PAPs to enable them salvage their assets.
- The Livelihood Restoration Plan (LRP) that has been included in this RAP, the main objective of which is the restoration of PAPs income/living standards to pre-displacement at

the minimum level, includes strategies which would improve future income and living standards of the displaced persons and should be implemented.

- The developer should be responsive and live up to their Corporate Social Responsibility (CSR) in the project area through the following activities:
  - Rural electrification programme;
  - Water supply and infrastructure improvement; and
  - Re-vegetation of the area.

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