

RP272
V4

Republic of Rwanda
Ministry of Infrastructure



**Retrospective Resettlement Action Plan for
Construction and Rehabilitation of Electricity
Distribution Networks in Gasabo District,
Kigali-Rwanda.
Medium and Low Voltage**

Urgent Electricity Rehabilitation Project
(UERP)



June 2010.

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Acronyms

ARAP	Abbreviated Resettlement Action Plan
EMF	Electromagnetic Fields
EA	Environmental Audit
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
IAPs	Interested and Affected Parties
IDA	International Development Association
LV	Low Voltage
MV	Medium Voltage
MININFRA	Ministry of Infrastructure
NDF	Nordic Development Fund
PPE	Personal Protective Equipment
PCBs	Polychlorinated biphenyls
PAPs	Project Affected Persons
PCU	Project Coordination Unit
RPF	Resettlement Policy Framework
ROW	Right Of Way
REMA	Rwanda Environment Management Authority
UERP	Urgent Electricity Rehabilitation Project

Definition of Terms

Census means a field survey carried out to identify and determine the number of Affected Persons (PAP) or Displaced Persons (DPs) as a result of land acquisition and related impacts. The census provides the basic information necessary for determining eligibility for compensation, resettlement and other measures emanating from consultations with affected communities and the local government institutions (LGIs).

Compensation means the payment in kind, cash or other assets given in exchange for the acquisition of land including fixed assets thereon as well as other impacts resulting from program activities.

Complaint Procedures that set out the time frame and mechanism for the resolution of complaints from affected people concerning compensation and resettlement issues. 'Grievance redresses' can be provided through informally-constituted local committees with representation from key stakeholder groups. Grievances can also be addressed through formal channels, with unresolved grievances being dealt with at progressively higher levels between the government and Company.

Cut-off date—Date of completion of the census and assets inventory of persons affected by the project. Persons occupying the project area after the cut-off date are not eligible for compensation and/or resettlement assistance. Similarly, fixed assets (such as built structures, crops, fruit trees, and woodlots) established after the date of completion of the assets inventory, or an alternative mutually agreed on date, will not be compensated. The cut -off date for the Project was the date when the census survey for land was commenced which is 20th September, 2007. (The date on which the census begins and sometimes decided by the communities and their local leaders as the date beyond which people may not claim eligibility for consideration as affected).

Host population—People living in or around areas to which people physically displaced by a project will be resettled who, in turn, may be affected by the resettlement.

Economic displacement—Loss of income streams or means of livelihood resulting from land acquisition or obstructed access to resources (land, water, or forest) resulting from the construction or operation of a project or its associated facilities.

Household (HH) is defined as the number of people living in one structure.

Involuntary Displacement means the involuntary acquisition of land resulting in direct or indirect economic and social impacts caused by: Loss of benefits from use of such land; relocation or loss of shelter; loss of assets or access to assets; or loss of income sources or means of livelihood, whether the Displaced Persons has moved to another location or not.

Involuntary Land Acquisition is the possession of land by government or other government agencies for compensation, for the purposes of a public program against the will of the landowner. The landowner may be left with the right to negotiate the amount of compensation proposed. This includes land or assets for which the owner enjoys uncontested customary rights.

Land refers to agricultural and/or non-agricultural land and any structures thereon whether temporary or permanent and which may be required for the program.

Land acquisition means the possession of or alienation of land, buildings or other assets thereon for purposes of the program.

Resettlement and Compensation Plan”, also known as a “Resettlement Action Plan (RAP)” or “Resettlement Plan” - is a resettlement instrument (document) to be prepared when program locations are identified. In such cases, land acquisition leads to physical displacement of persons, and/or loss of shelter, and /or loss of livelihoods and/or loss, denial or restriction of access to economic resources. RAPs are prepared by the party impacting on the people and their livelihoods. RAPs contain specific and legal binding requirements to resettle and compensate the affected party before implementation of the program activities commences.

Displaced Persons mean persons who, for reasons due to involuntary acquisition or voluntary contribution of their land and other assets under the program, will suffer direct economic and or social adverse impacts, regardless of whether or not the said Displaced Persons are physically relocated. These people may have their: standard of living adversely affected, whether or not the Displaced Person will move to another location ; lose right, title, interest in any houses, land (including premises, agricultural and grazing land) or any other fixed or movable assets acquired or possessed, lose access to productive assets or any means of livelihood.

Program Affected Person(s) (PAPs) are persons affected by land and other assets loss as a result of activities. These person(s) are affected because they may lose, be denied, or be restricted access to economic assets; lose shelter, income sources, or means of livelihood. These persons are affected whether or not they will move to another location.

Resettlement

Resettlement (direct physical, economic and social losses resulting from land taking and restriction of access together with the consequent compensatory and remedial measures. Involuntary because land is acquired through the right by government to take private property for public use by virtue of superior dominion of the sovereign power over all lands within its jurisdiction - eminent domain)

Involuntary resettlement—Resettlement is involuntary when it occurs without the informed consent of the displaced persons or if they give their consent without having the power to refuse resettlement.

Project-affected household—All members of a household, whether related or not, operating as a single economic unit, who are affected by a project.

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

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

Replacement cost—The rate of compensation for lost assets must be calculated at full replacement cost, that is, the market value of the assets plus transaction costs. With regard to land and structures, IFC defines “replacement costs” 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 labor 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 benefits to be derived from the project deducted from the valuation of an affected asset.

Resettlement Action Plan (RAP)—The document in which a project sponsor or other responsible entity specifies the procedures that it will follow and the actions that it will take to mitigate adverse effects, compensate losses, and provide development benefits to persons and communities affected by an investment project.

Resettlement assistance—Support provided to people who are physically displaced by a project. Assistance may include transportation, food, shelter, and social 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.

Resettlement policy framework—A resettlement policy framework is required for projects with subprojects or multiple components that cannot be identified before project approval. This instrument may also be appropriate where there are valid reasons for delaying the implementation of the resettlement, provided that the implementing party provides an appropriate and concrete commitment for its future implementation. The policy framework should be consistent with the principles and objectives of OP 4.30.

Stakeholders—Any and all individuals, groups, organizations, and institutions interested in and potentially affected by a project or having the ability to influence a project.

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

1.0 Background

The Urgent Electricity Rehabilitation Project (UERP) being implemented by its partners including ELECTROGAZ Ministry of Infrastructure (MININFRA) and RURA through the UERP Project Coordinating Unit (PCU) plan to construct and improve the existing distribution and transmission network in Kigali as part of its effort to ensure effective distribution of energy in Rwanda which remains one of the fundamental objectives of the UERP. The project is going to involve creation of a new transmission route, rehabilitating dilapidated networks, erection of towers and constructing of small sub stations at different points in Gasabo District. This project is intended to mitigate the power crisis in Rwanda and to help to restore good utility practice for its installations is financed through a loan to the Government of Rwanda by the International Development Association (IDA) and the Nordic Development Fund (NDF).¹

The entire UERP project include the following components: (a) Power System Reinforcement, consisting of priority investments in new generation capacity as well as network rehabilitation and strengthening; (b) Technical Assistance and Capacity Building, aimed at strengthening planning, regulatory and implementation capabilities of the main sector institutions and provide project implementation support; and (c) Domestic Resources Development, to finance investments in high priority micro-hydro based independent grids as well as preparatory activities for the future increments in generation investments, primarily for ELECTROGAZ.

The project will be coordinated by a Project Coordination Unit (PCU) housed in ELECTROGAZ and which will work under the overall responsibility of a Steering Committee headed by the Ministry of Infrastructure and comprising key stakeholders in the Project.

According to the operational procedures for the World Bank especially in relation to projects that touch on Involuntary Resettlement, a Resettlement Action Plan must be prepared before any project that triggers the above safeguards is executed. In this regard, no civil works must occur until the entire project affected parties (PAPs) are duly compensated.

Civil works began in November 2007 only after all the PAPs had been identified and compensation provided. All the PAPs were appropriately consulted and engaged, assests valued and compensation provided in line with the Rwanda laws on land acquisition and compensation as well as the bank's policies in this regard. Copies of cheques showing payment to the PAPs are available and can be provided upon request.

Therefore, the actual activity (compensation) is not retrospective instead it is the report preparation that is retrospective in nature. i.e. the report has been prepared after compensation has occurred and all procedures by the bank and Government of Rwanda duly observed.

2.0 Project Description

UERP intends to rehabilitate distribution networks for electricity in Kigali and precisely in Gasabo district with the sole purpose of increasing access to electricity to the residents of Kigali thereby enhancing growth and trade through energy access. The proposed distribution lines are 3 in total and target the District of Gasabo which is one of the 3 districts in Kigali province.

These proposed lines are;

1. 15kV double system line Birembo-Rubungo
2. 15kV double system Birembo-Kibagabaga, 15kv single circuit Kibagabaga-Remera
3. 15kV single circuit line Birembo-Deutsche-Welle

The project also intends to construct 4 ring main units at the following areas namely; KBC, Remera, Rubungo and Deutsche-Welle. These ring mains are mini substations aimed at stepping down the Medium Voltage (MV) to Low Voltage (LV) before it is distributed to consumers.

The construction and rehabilitation of distribution lines, including the construction of 4 min-sub stations and erecting of distribution towers therefore indicate the need for land taking which is expected to lead to physical and economic displacement of people and loss of access to the land that provides for economic resources as well as shelter. This therefore principally triggers World Bank Operational Policy OP4.12 on Involuntary Resettlement and the Land Law of Rwanda.

The land where the routes identified for the construction of the distribution network is owned by several private individuals while part of the land is also public. A total of 2.5741 ha of land combined will be acquired with a total of 440² people affected by the project by way of losing land, structures, crops and trees with 95 people out of the affected for land expropriation. This land is the total sum of land that will be acquired for the construction of the 4 “mini substations” and the distribution lines.

Right of Way

According to the international standards for construction of overhead lines, overhead lines above 60 kV require a track for maintenance which shall be provided within the right-of-way. The track may meander to effect economy. The track shall have a minimum width of 3 m. All vegetation within the track shall be cut down to ground level, all tree stumps and roots grubbed and the track left in a condition suitable for the passage of normal line maintenance vehicles and equipment. In certain areas, as directed by the Client, the track shall be discontinued. On completion the contractor shall make good damage to fences, etc.; the track shall be handed over on an “as is” basis.

The distribution line proposed in this project is 15 kV therefore is less than 60kV hence the track shall have a minimum width of less than 3 m. The transmission line right-of-way is 15 meters wide for the 30 kV lines symmetrical about the centreline. These are the international standards and have been expressly stated in the tender documents.

² Includes a combination of the 65 PAPs who had only their land acquired without crops, tress etc thus making the 65 part of the 440 land owners.

All trees, snags, stumps, shrubbery, ant hills and undergrowth exceeding 2 meters in height as measured on the downhill site shall be cut to a maximum stump of 20 cm along the right-of-way.

These different people (Project Affected Persons) are utilizing the pieces of land into various land uses ranging from; livestock keeping and subsistence agriculture.

All trees adjacent to the right-of-way which could fall across the conductors or against the towers shall be cut, this criterion shall apply with the conductors displaced 53° from the vertical in either direction.

In addition to the clearing required on the right-of-way all trees, bush stumps and snags to each tower location shall be cut, regardless of height and clearance to conductor to a maximum stump of 25 cm, in an area of 8 by 8 meters around a 30 kV tower.

The Contractor shall clear the right-of-way for the low voltage lines and dispose of waste material along the entire length of the line.

All trees, snags, stumps, shrubbery and undergrowth exceeding 4 meters in height as measured on the downhill site shall be cut to a maximum stump of 20 cm along the right-of-way. Cutting of trees shall be reduced to a minimum.

Electrogaz will make the necessary arrangements with landowners so as to permit the Contractor the cutting or trimming of trees located both inside and outside the right-of-way where such cutting or trimming is necessary. The Contractor shall notify Electrogaz 14 days in advance of commencement of any proposed clearing operation. No clearing shall be undertaken until the Electrogaz has made the arrangements with the landowner and/or unless in the presence of the Electrogaz. The removal of some huts and cottages, which are situated along the right-of-way, is the responsibility of the Electrogaz.

The Resettlement Action Plan is conducted to ensure that a systematic assessment of potential losses will be made and action taken to minimize damage or loss to affected people by the construction of the proposed distribution line including construction of the 4 mini sub stations, and erection of distribution towers.

It considers loss of access to resources (dwellings, crops, woodlots, grazing lands, wells, businesses, cultural properties and social services) or temporary displacement due to construction (e.g. earth-moving, tower construction, the laying out of lines and other installation activities). Total displacement may occur where transmission lines run above domestic dwellings or social services or if sub stations are sited in areas where the residents have erected a house already.

3.0 Scope and Objectives of This Document

The purpose of the Abbreviated Resettlement Action Plan is to:

- Undertake a Census Survey to determine the total number of the potential PAPs
- Undertake a detailed socio-economic survey in order to provide an Inventory of Losses (IOL) and the valuation of assets owned by the PAPs.

- Identify and measure the impact of the Project on the people who live and work on land in the project and the surrounding areas;
- Present policies to deal equitably with the Project Affected Persons (PAPs);
- Develop compensation, relocation and rehabilitation measures that will enable the affected people to re-establish their lives on an equal or preferably better-than-before basis;
- Prepare a detailed cost estimate of all measures required to achieve the successful implementation of the compensation and resettlement program;
- Prepare a timeline for the implementation of the RAP.
- Identify the responsibilities of the various parties that are to implement the plan; and
- Provide an opportunity for affected households and other stakeholders to be consulted on the plans and provide meaningful input into the design of the overall program.
- Identify possible displacement alternatives

4.0 Eligibility and Entitlements

Those eligible for compensation, relocation and/or rehabilitation assistance to help restore incomes include:

- All those living in the Project operational area;
- All those not living in the Project operational area, but with land or other assets in the area; and

In order to be eligible under the above, persons must occupy the land prior to the day of the survey that was undertaken by the Electrogaz engineers on the 20th September, 2007 which was the cut off date for this project. Lack of legal rights or documentation will not bar affected people from eligibility or entitlements. The basis for establishing eligibility is the socio-economic baseline survey and in particular the detailed measurement and census survey initiated on 20th September 2007 and to be formally updated and confirmed during the resettlement program implementation. Socio-economic survey and asset valuation for calculation of compensation packages and to initiate the land recovery process began in September 2007 and is now complete.

The entitlements to those who are eligible are summarized as follows:

- Compensation for houses/structures on the basis of full replacement value.
- Compensation for lost agricultural land in cash based on the market value or land for land with the same productive capacity;
- Compensation for lost crops and trees.

5.0 Persons/Heads and Households in those Projected Affected Areas

Within Kigali City, the proposed line routings run through the entire Gasabo district across 8 sectors and 9 cells. The cells are MASORO, MURAMA, GASHARU, NYABISINDU, BIBARE, KIBAGABAGA, NGARA, KINYAGA and NYABIKENKE.

The majority of people in the project affected areas are dependent upon land as the basis of socio-economic subsistence. Common crops grown in the project area include among others napier grass, bananas, potatoes, cassava, tomatoes, egg-plant, and pawpaw among others. Common trees include among other eucalyptus, ficus, jacaranda cyprus and grevillea. A full list of crops and trees grown in the project area are contained in Table 4 in section 2.2.4 of this report.

6.0 Public Participation and Consultation

UERP and ELECTROGAZ undertook detailed public consultation and stakeholder engagement targeting all the Interested and Affected Parties (IA&P) through Focus Group Discussions (FGDs) and face to face meetings that were held at all the cells where the project will be implemented. These meetings were held in the presence of the head of the cells and sector.

7.0 Complaints Settling

ELECTROGAZ is committed to addressing stakeholder concerns, complaints and grievances regarding resettlement. During implementation of the compensation and resettlement program complaints and grievances will be dealt with according to the approved steps agreed between the relevant sectors, district and provincial authorities and ELECTROGAZ.

Complaints procedures including 'complaint action forms' and instructions have been widely disseminated within local communities and are available to the general public. ELECTROGAZ /UERP PCU have initiated a complaints documentation and management system that records complaints and enables them to be tracked and resolved in a timely manner.

Affected people and other stakeholders who have complaints will be treated fairly and quickly at all levels and no administrative fees will be charged to process their complaints. In the event that the dispute resolution mechanism put in place does not satisfy aggrieved PAPs, then the Rwanda Law courts will be the alternative institution for seeking redress.

8.0 Monitoring and Evaluation

The monitoring and evaluation of the of the Resettlement Action Plan will be internally supervised and monitored by the ELECTROGAZ/UERP/PCU resettlement team, as well as the Gasabo District Compensation and Resettlement Committee. The resettlement program will be monitored regularly with reports and recommendations set in motion and made publicly available as relevant.

Monitoring will be based on indicators of change relevant to compensation and resettlement and will be based as much as possible on participation with affected households and communities.

9.0 Implementation Schedule

The Resettlement Action Plan will be implemented in close association with the civil works including the detailed planning and engineering activities. The construction started in November 2007 and ended in December 2009.

10.0 Costs and Budget

The total cost for developing and implementing the Resettlement Action Plan is estimated to be RFW **215 529 823** which is equivalent to **US\$ 391, 872**.

This cost estimate includes the replacement cost of compensation for land, structures and crops. The compensation and displacement program costs in RFW by broad categories are as follows:

1. Crops Compensation
2. Structure Compensation
3. Land Compensation

The table below provide a summary of the total compensation for the crops and land of the PAPs for their land that is targeted for acquisition, the existing structures and inherent crops.

Table 1. Compensation Summary

Total Land Compensation (RFW) 2.5741 (Ha).	Total Compensation for structures and crops (FRW)	Total Compensation for structures, crops and Land (FRW)
122 145 102	94 574 341	216, 719, 443

In accordance with the World Bank Policy OP4.12 a resettlement action/compensation plan must be developed and submitted to World Bank and Rwanda Environment Management Authority (REMA) for approval before any land acquisition, resettlement, loss, denial of, and restriction to economic resources or any other impact on livelihood occurs.

1.0 Introduction

1.1 Project Background

Energy is crucial to Rwanda's economic growth. In Rwanda, electricity is the second most important source of commercial energy for the formal sector after petroleum fuels. Commercial and industrial establishments as well as institutions and households in the country use electricity.

Rwanda remains among the lowest per capita electricity and petroleum products consumption countries in the world. Only about 117,000 (6 percent) of households have access to grid supplied power, almost entirely in the main urban areas. Diesel remains the primary fuel for self-generation in rural areas, and also for back up in urban areas during the current crisis, and kerosene for lighting for the vast majority.

Grid extension has been extremely limited, and economically justified only to meet rural industrial loads and emerging population clusters.

Rwanda's post conflict genocide economic recovery is under threat from severe power supply shortages. A combination of strong demand growth with unexpectedly low water levels in its hydro power sourced lakes further exacerbated by high technical losses and unreliability of ELECTROGAZ dilapidated network, have led to extensive and lengthy power cuts.

Despite re-commissioning of an old diesel power plant, load shedding had increased to about 25% of peak demand with serious adverse consequences. Supply shortages have raised the cost of doing business, in particular for short export enterprises, and weakened the prospect of attracting new investments. Power supply shortages have also worsened water supply problems in the main urban areas, leaving ELECTROGAZ to switch to diesel water pumping and adding to its financial woes.

Rwanda was already importing 60% of its electricity needs, mostly from SNEL and Sinelac plants in the Democratic Republic of Congo, and there is a little scope to increase this further. In the near term before any new hydro or gas based power can be brought on line, Rwanda will have to increasingly rely on higher costs diesel power (about 150USc/kWh compared to 2003 average bulk supply cost of around 5USc/kWh).

Urbanization and industrial growth, combined with limited access to electricity and high cost of petroleum products have led to an even more rapid growth in urban charcoal demand. Severe deforestation during conflict, in part by internally displaced persons and returning refugees has been further compounded by the large scale demands for charcoal making, construction materials, and agro industrial, institutional and commercial customers.

ELECTROGAZ operates, in addition to the system in Kigali, 14 Distribution Centres (called Stations), located throughout the country of Rwanda, which provide services to customers.

In the distribution system, power is distributed at medium voltages of 30kV, 15kV and 6.6kV. Low voltages are 380V three phases and 220V single phase. The distribution networks of Kigali are

characterized by the large percentage of the network that is underground. The distribution system is generally in a poor state, with overall losses amounting to about 34.5% in 2001.

Through intensive investigations in consumer installations and the review and update of the customer and meter database in Kigali, the overall loss figure was reduced to about 26% in 2003. Although it is currently not possible to allocate this figure to technical and non-technical losses, in the light of the network condition, technical losses considerably exceeding figures achieved by comparable utilities can be expected.

By the end of 2004 Rwanda has faced year energy crisis that has never happened before. The Government Rwanda of (GoR) ELECTROGAZ through has managed to mitigate the crisis by putting in places Diesel Power Plantations with additional capacity of about 12.5 MWS. The effort to get rid of the deficit has continued. As part of the strategy of the Government of Rwanda to arrest the energy crisis in the country, the GoR has asked the World Bank for support of its Urgent Electricity Rehabilitation Project (UERP). The overall development objectives of the proposed project are to: (i) Alleviate the power shortages: and (ii) enhance the capabilities of energy sector institutions.

1.2 Project Description

The UERP intends to rehabilitate and establish new distribution network for electricity in Kigali and precisely in Gasabo district with the sole purpose of increasing access to electricity to the residents of Kigali thereby enhancing growth and trade through energy access. The proposed transmission and distribution lines are 3 in total and target the District of Gasabo which is one of the 3 districts in Kigali province.

These proposed lines are;

1. 15kV double system line Birembo-Rubungo
2. 15kV double system Birembo-Kibagabaga, 15kv single circuit Kibagabaga-Remera
3. 15kV single circuit line Birembo-Deutsche-Welle

There project also intends to construct 4 ring mains or mini substations at KBC, Remera, Rubungo and Deutsche-Welle. These are mini substations whose work is to step down the electricity current from Medium Voltage (MV) to Low Voltage (LV) before it is distributed to consumers.

The construction of the distribution lines following the 3 proposed routings including the creation of Right Of Way (ROW) and construction of the 4 sub stations will require land acquisition and potentially lead to displacement. A total of 2.5741 ha of land will be acquired to pave way for the construction and installation activities related with this project.

1.3 Project Objectives

The objectives of the project are to extend and rehabilitate the electricity distribution grids for supplying electricity to consumers (household, agricultural, commercial and small and medium enterprises) in Kigali. All the connected consumers in Kigali will then be supplied from the interconnected grid. This project involves the installation of Medium and Low Voltage (MV&LV) transmission lines within the district of Gasabo emanating from 5 different points. Similarly, 4 mini substations will be located along these lines with the aim of stepping down the MV current to LV

before distribution to consumers. The mini substations require housing units that will be constructed during the construction phase.

1.4 Project Objectives, Policy Framework and Entitlements

1.4.1 Objectives of ARAP

The main objective of this Resettlement Action Plan is to compensate the PAPs for the loss of land that will be acquired from them to pave way for the construction activities and eventual installation of the distribution lines.

There will also be compensation for the structures and crops including tress that are inherent in the project route that will be destroyed or cleared in the process. The persons (families) to be compensated have been meaningfully consulted and have been given several opportunities to participate in planning and implementing of the compensation programs as described in the later sections of this report. The resettlement and compensation plan outlined in this report has been prepared in accordance with the requirements outlined by the Government of Rwanda and the World Bank.

1.4.2 Resettlement Objectives

The Resettlement Plan aims to ensure that the losses incurred by affected people are redressed such that Project affected Persons (PAPs) share project benefits, are assisted to develop their social and economic potential in order to improve or restore their incomes and living standards to pre-project levels and are not worse off than they would have been without the Project.

1.4.3 Resettlement Principles

The World Bank's requirements regarding involuntary resettlement are detailed in Operational Policy (OP) 4.12. The policy outlines the following principles:

Acquisition of land and other assets, and resettlement of people will be minimized as much as possible by identifying possible alternative project designs, and appropriate social, economic, operational and engineering solutions that have the least impact on populations in the Project area.

The populations affected by the Project are defined as those who may stand to lose, as a consequence of the Project, all or part of their physical and non-physical assets, including homes, homesteads, productive lands, commercial properties, tenancy, income-earning opportunities, social and cultural activities and relationships, and other losses that may be identified during the process of resettlement planning.

All PAPs who are identified in the project impacted areas as of the date of the updated census and inventory of losses, will be entitled to be compensated for their lost assets, incomes and businesses at full replacement cost and provided with rehabilitation measures sufficient to assist them to improve or at least maintain their pre-project living standards, income earning capacity and production levels.

All affected populations will be equally eligible for compensation and rehabilitation assistance, irrespective of tenure status, social or economic standing, and any such factors that may

discriminate against achieving the objectives outlined above. The rehabilitation measures to be provided are:

- Cash compensation for houses and other structures at replacement cost of materials and labour without deduction for depreciation or salvageable materials;
- Full title to replacement agricultural land for land of equal productive capacity acceptable to the PAP;
- Full title to replacement residential and commercial land of equal size acceptable to the AP or, at the informed decision of the PAP, cash for replacement land at replacement cost at current market value;
- Cash compensation for crops and trees at current market value; and relocation allowances and rehabilitation assistance.
- Temporarily affected land from the construction of access routes or earth-moving activities will be restored to pre-project conditions.
- The compensation and resettlement activities will be satisfactorily completed and rehabilitation measures in place and all encumbrances removed before the Government of Rwanda and World Bank will approve commencement of civil works for that contract area.
- Adequate budgetary support will be fully committed and made available to cover the costs of land acquisition and resettlement and rehabilitation within the agreed implementation period
- Grievance procedures shall be established and in place and PAPs informed of them before any resettlement activities begin.
- Appropriate reporting, monitoring and evaluation mechanisms will be identified and set in place as part of the resettlement management system and an external monitor hired before commencement of any resettlement activities.

1.4.4 Time Frame for Construction and Operation of the Project

The proposed construction period for development of the Project is approximately 18 months.

2.0 Project Activities and Impacts on Affected Populations

2.1 Description of Works

The proposed works include the construction of electricity distribution lines with lattice steel towers and all aluminium alloy conductors (2-450 mm² cross-sections) from different points in Gasabo district. Most of the construction activity during project implementation will involve the construction of the distribution line and sub stations. The line will use self-supported steel lattice towers with concrete foundations as commonly used in Rwanda.

Proposed activities related to the rehabilitation and installation of new lines include the installation of Low Voltage and Medium Voltage (LV&MV) distribution towers and distribution networks along routes already identified and the construction of 4 “minor” substations. These activities will include mapping of distribution network route, clearing of vegetation along the identified routes, demolition of structures and other aspects on the identified the routes in order to create Right of Way (ROW), earth and engineering works and service utility buildings and installation of the towers.

This RAP covers all the aspects of the project as described above.

The project activities can be classified in the following stages;

- Design and Planning Phase
- Construction Phase
- Post Construction Phase(Operations and Maintenance)
- Decommission Phase

2.1.1 Design and Planning Phase

During the design phase of this project, the expected activities some of which have already occurred include:

Site Selection and Routing

The identification of new transmission and distribution routes require adequate survey and mapping to ensure that the eventual distribution network routing avoids sensitive ecosystems, densely populated areas that would cause immense land acquisition and resettlement. ELECTROGAZ’s land surveyors have identified the routes that will be the path for locating the network. See annex 4 for routes of the distribution network.

Land Acquisition /Compensation

All the routes identified for the distribution and transmission network including the location for the 4 sub stations and creation of Right of Way (ROW) which will fall along land owned by the general public will be acquired in accordance with the Resettlement Policy Framework (RPF). 4 mini sub stations or “cabins” will also be located at different points within the network lines and the construction of these sub stations will also require land acquisition to erect the housing units.

2.1.2 Construction Phase

During the construction phase, the following key activities are expected to occur;

1. Horizontal and Vertical Clearances

Clearing of the path where the transmission and distribution infrastructure will pass is the initial activity that will occur during the construction phase. This is in order to create the vertical and horizontal clearance required when constructing electricity lines. After the PAPs identified during the socio-economic survey are compensated, all the obstacles along the paths will be cleared as required. The clearing process will follow the international dimension in installation of distribution and transmission networks specified below. The horizontal and vertical clearances shall be according to VDE 0210 and as noted in the table below.

Table 2. Clearance Guidelines

		< 36 kV	132 kV
Terrain available to pedestrians only	[m]	7.0	7.0
Roads and thoroughfares	[m]	8.0	8.5
Railways	[m]	10.5	10.5
Power supply circuits	[m]	2.5	3.5
Communication circuits	[m]	4.0	4.0

Source; Tender Document

2. Provision of Site Access

The Contractor shall provide and maintain all access from the main highways to the transmission and distribution line routes during erection as required. However, no continuous track for maintenance within the right of way, along the entire line route is foreseen for MV lines.

3. Clearing of Right-of-Way

An electric line right-of-way (ROW) is a strip of land that an electric utility uses to construct, maintain, repair or replace an overhead or underground power line. The ROW allows the utility to provide clearance from trees, buildings and other structures that could interfere with the line installation, maintenance and operation. It usually is 10 to 20 feet wide unless terrain, vegetation, or unusual construction conditions require a wider easement. This ROW is obtained through an easement from the property owner.

To ensure safe and reliable power, it is important to keep electric distribution lines free of any kind of interference. This means that tall-growing trees should not be placed near to or under existing electric distribution lines. ELECTROGAZ will maintain a regular trimming schedule to keep interference from trees to a minimum. The Contractor shall clear the right-of-way, fell any vegetation and dispose of waste material along the entire length of a transmission line. The transmission line right-of-way is 15 meters wide for the 30 kV lines symmetrical about the centreline.

All trees, snags, stumps, shrubbery, ant hills and undergrowth exceeding 2 meters in height as measured on the downhill site shall be cut to a maximum stump of 20 cm along the right-of-way. All trees adjacent to the right-of-way which could fall across the conductors or against the towers shall be cut, this criterion shall apply with the conductors displaced 53° from the vertical in either direction.

In addition to the clearing required on the right-of-way all trees, bush stumps and snags to each tower location shall be cut, regardless of height and clearance to conductor to a maximum stump of 25 cm, in an area of 8 by 8 meters around a 30 kV tower. In some cases, electric distribution lines are built along wooded areas or near existing trees. This is often the case when electric distribution lines are built along roadways or at the rear of residential lots. Therefore, trees in these areas may need to be trimmed and sometimes removed.

For all the 30Kv overhead lines a track for maintenance shall be provided within the right-of-way. All vegetation within the track shall be cut down to ground level, all tree stumps and roots grubbed and the track left in a condition suitable for the passage of normal line maintenance vehicles and equipment. Access roads shall be constructed in such a way that they can be used for maintenance of the line by four wheel drive vehicles up to a total weight of 7.5 tons. The length of the access road is the distance between the edges of public roads to the tower location.

4. Excavation Works

After distribution network path has been cleared as specified above, there will be excavation works related to construction of access and maintenance roads, excavations works for construction of the 4 mini substations and for creating the foundations for erecting the towers. The excavation works for the towers and 4 cabins will be undertaken using simple hand implements and through manual labour. Because the areas for the tower foundations are small in size, local labourers will use forks, pick axes etc to excavate. Excavation and grading works for the access roads will be done using motorised equipment and machinery.

5. Erection of Towers

Tower structures that will be erected shall be of the self supporting lattice-type steel frame with square bases. The general outlines of the towers may be varied but the general dimensions, phase spacing, clearances, and the configuration of the conductors and earth wire must be approved by the Engineer. They shall be designed as single-circuit type for the conductors and earth wires specified and the voltages designated in the tender documents.

The Contractor shall generally be guided by the provision of VDE 0210 for lines up to a rated voltage of 45kV, above EN50341 shall be used in the design of the tower structures.

6. MV/LV Substations“Cabins”.

The project will construct 4 MV/LV mini substations or cabins in 4 different sites already identified along the transmission and distribution paths. These mini substations will step down the electricity from MV to LV before distributing to consumers. These substations are basically small housing units made of concrete and fitted with transformers and electrical gadgets.

The construction of these cabins will include the following activities:

- acquisition of Land
- preparation of site
- detailed planning of the civil works
- detailed planning of the electrical equipment
- execution of civil works
- installation of electrical equipment and connection to the MV and LV lines

- installation of small power distribution
- testing and commissioning

2.1.3 Operation and Maintenance Phase

During operation phase the expected activities include, operation and maintenance of the transformers, circuit breakers, circuit switches and capacitors that will have been installed during the construction phase.

A permanent area (typically of 40m width, i.e. 20m clear of the route centre line) of land will be required to accommodate the transmission line, when completed. A parallel strip of land through those sections of the route which pass through vegetation shall be completely cleared. The width of the strip may vary according to the mean height of the vegetation and shall be determined by ensuring that any standing tree would not cause flashover from a conductor deflected up to 45° from the vertical.

In determining the flashover clearance and in estimating the mean height of the vegetation due allowance shall be made for seasonal growth. In addition, any tree that may fall in the direction of the overhead line shall be cleared unless located more than 20 m plus the height of the tree clear of the route centre line.

Routine maintenance is carried out along the ROW to ensure the appropriate clearances between towers, conductors and vegetation and other objects are maintained according to the required safety/operation specifications listed above. A 5m wide path along the line route will be required in the absence of a public road. Maintenance is normally carried out twice a year (dependent on site conditions).

2.2 Positive Impacts

Positive impacts of the project are various and diverse in nature. They range from employment opportunities, to wealth creation, industrialization, improvement in service delivery to technology transfer and capacity building and are described below.

2.2.1 Socio-economic Benefits

The positive impacts are numerous and wide-ranging. The benefits of the project for domestic supply and use in small-scale businesses and in access to electric power for schools and public services are evident. In the construction phase there will be temporary employment opportunities for local contractors and those who will be employed or supply services and provisions for workers and to contractors. Within the respective project areas there will be opportunities for petty trading and small business service provision along the power line routes.

Significant social benefit will come through employment generation and safer more efficient operation of key services, through provision of electricity access to the villages along the transmission and distribution lines served by the project. Potential beneficiary enterprises affected by and contributing to regional socio-economic transformation will be small industries and other agricultural processing businesses which need electricity.

The long-term direct positive impact is thus access to reliable electricity supplies, which will lead to better provision and easier management of goods and services, and enable new facilities for processing and storage. There will be better availability and supply of safe and clean water (which needs pumping); data management with computers is made possible and communication facilities like Internet can be made available, as also charging for mobile phones; also, electric lighting adds to security at night and enables extended opportunities for work and study.

As a consequence the quality of life and extent of economic opportunity will be changed for the better. Social and environmental costs, not least in noise and air pollution, associated with existing generator usage will be reduced and there may be a more limited requirement for firewood cutting and collection.

2.2.2 Employment Opportunities

On employment the project expects to employ local casual and skilled labor on-site. This is exclusive of indirectly employed people who will provide support and related services including those trading in foodstuff for the workers on site and construction personnel during the site preparation phase of the project. An estimated total of 200 laborers will be employed in this project over a period of 18 months. At this point it the number of women workers or those directly affected by the project who could be employed is unknown but UERP will advise that this group of persons be given priority.

2.2.3 Environmental Benefits

Increased transmission and distribution of electricity to the Kigali population will ease the pressure on the use of fuel wood that is rampant in the city and in effect would help to conserve the fragile and diminishing forest cover of the country by providing an alternative source of energy.

2.3 Potential Adverse Impacts

2.3.1 Area of Impact

The area of immediate impact will be the line corridor Right-of-way (RoW). A parallel strip of land through those sections of the route which pass through vegetation will also be completely cleared of all trees, scrub and undergrowth above a height of 20m during the construction stage.

Appropriate clearance between conductors and vegetation/structures along this corridor will be maintained throughout the life of the line. Cropping and grazing beneath the conductors is normally permitted. The temporary area required during tower foundation construction will be 15m x 15m. Tower foundation materials and equipment will be stored in the area reserved for stringing along the line corridor.

2.3.2 Project Implementation

In line with similar projects implemented in Rwanda, construction is expected to start after contract signing following international competitive tendering. Pre-construction activities associated with design work include soil investigations and detailed survey of the transmission line route and substation location. Construction of the lines will then start by preparation of tower foundations, followed by tower erection & conductor stringing. Construction of the substation will start by substation civil works (equipment foundations & substation building) and installation of equipment.

The dominant land use along the transmission line route is rain-fed agriculture and crops. The project is planned to be completed within 18 months from awarding of the construction contract and will include equipment design, fabrication, delivery, erection and testing.

The following adverse impacts are anticipated to occur during the design/planning and construction phase of the project.

2.3.3 Land Acquisition/Loss

In order to construct the substations, rehabilitate and erect a distribution network in Gasabo district, land will definitely have to be acquired for the “mini”substations, for creating the new routes and conforming to the requirement of creating a Right of Way (ROW). The ELECTROGAZ team of surveyors have taken great care to ensure that as little land as possible is acquired by routing the new lines away from settled areas this is in an effort to minimise potential displacement and resettlement.

Small pieces of land have in the long run been acquired from PAPs spread all over Gasabo District whose lands fall along the proposed routing for the lines.

Size of Land expected to be Acquired

The project will only acquire approximately 2.5741 ha of the existing land area for which is currently under different uses and separately owned by over 440³ PAPs. Table 4 below shows the type of crops under cultivation and which will be destroyed.

2.3.4 Destruction of vegetation cover/crops

An analysis of land use was conducted by the UERP/PCU safeguards advisor and ELECTROGAZ’s survey team in order to map out the types of land use in the proposed routes for the network. The land where the routes for the distribution lines including land for construction of the sub stations are generally agricultural land where the following variety of crops and trees among others are currently present. These crops and trees will inevitably have to be removed to pave way for construction activities.

Table 3 Crops in project area.

Type of Crops Destroyed	
Beans	Oranges and citron
Peas	Avocado
Ground Nuts	“Goyave”
Sorghum	Other tree bearing fruits
Maize	Medicinal plant
Irish potatoes	Coffee
Yams	Banana
Potatoes	Pepper
Cassava	Nappier Grass

³ Includes a combination of the 65 PAPs who had only their land acquired without crops, tress etc thus making the 65 part of the 440 land owners.

Onions	Sisal
Tomatoes	“Citronelle”
Eggplant	Bamboo
Carrots	Euphorbia
Others legumes	Euphorbia fence
“Inzuzi “	Cyprus fence
Pineapples	Fence of Shrub
Seedlings	Ficus Trees
Maracuja	Eucalyptus
Plum	Jacaranda
Cow Peas	Acacia
Pawpaw	
Flowers and garden trees	

2.3.5 Destruction of physical structures

There are only 2 structures (commercial) that are have been identified to be along the proposed distribution line and in locations identified for the construction of a sub station. These structures will be brought down in order to implement the project and the PAPs will be fully compensated for the acquired land and structures.

2.3.6 Disruption in Daily Living and Movement Patterns

It is anticipated that the construction activities will result in some intrusions and disruptions in the daily living and movement patterns of the property owners. Such disruptions are anticipated to be of high significance, but of a short-term nature, and could be caused by the movement of construction vehicles and frequent entries to the properties as a result of the construction activities. This would especially occur in the following cases:

- Where private dwellings and farm worker accommodation are situated near to the proposed lines.

3.0 Census and Socio-Economic Surveys

A socio-economic survey was undertaken by UERP/PCU staff and ELECTROGAZ's technical engineers following the identification of the routing for the distribution network. The socio-economic survey focused on the land use along the proposed lines and included inventory of the assets and property including land, structures, crops and trees, and community structures.

During the socio-economic surveys, participatory consultations were held with the PAPs and used to inform them the reason for the survey and their opinions and views were sought. Similarly, during the socio-economic survey, valuation of land and other property as undertaken in the presence of the PAPs who were informed of the unit of measurements and how to seek redress in case they are not satisfied with the valuation process.

The evaluation was undertaken by qualified land surveyors from Gasabo District and in the presence of the Land Resettlement committees at the district, sector and cell level. The rates for the valuation used were the existing market rates for land, structures and crops/trees

A total of 440 Project Affected Persons have been identified and will be as a result of the project lose land that they use for agriculture as well as the crops including trees. Apart from 2 people who will loose their commercial structures in order to pave way for the construction, there will be no loss of residential housing or any other structure from the remaining PAPs.

Table 4. Summary of the villages and number of PAPs affected by project

Item	Unit	Village sites	Total
Affected District	Gasabo		
Affected villages	Binunga-6 Rusenye-6 Gatare-14 Marembo 2-2 Buhoro-4 Rugarama-6 Kinunga-6 Gatare-2 Bukinanyana-2 Karisimbi-4 Nyirabwana-2 Buranga-4 Birembo-1 Masizi-5 Zindiro-7 Matwari-1 Masoro-5 Mubuga-3 Ingenzi-8 Imitali-1 Kayenzi Matwari Uwimitari		

	Taba Rusenyei Bibare/Kimironko Rugando/Kimihurura		
A. Resettlement			
Households relocated		None (0)	None (0) —
Households compensated and not relocated		None (0)	None (0) —
Houses replaced		None (0)	None (0) —
Households given materials for construction		None (0)	None (0)
Households/Structure compensated + build own houses		None (0)	2 PAPs
Other assets replaced – Water resources community/Access road		None (0)	None (0)
PAPs Compensated for Crop and Tree Losses			440 PAPs
Households Compensated for farm land			95PAPs

3.1 Documentation of Holdings and Assets

ELECTROGAZ through the UERP/PCU has engaged the local community leaders at the Sector and Cell level in the target areas in discussing the compensation process. Using qualified land surveyors and valuers, UERP/PCU has already undertaken a complete and detailed inventory of all the assets of the PAPs in the land to be acquired, total land holdings including necessary personal information of the same.

This information has been confirmed and witnessed by the secretary general of the Kigali City Council and the Mayor of Gasabo District. The information has also been witnessed by the office of Good Governance at the district level and duly countersigned by the PAPs as a true reflection of the same. The UERP/PCU with the assistance of the Safeguards Advisor is developing a database for keeping all this information including the relevant signed records and copies.

3.2 Census Survey of Displaced Persons

The entire project will only physically displace 2 persons whose commercial structures will be demolished to pave way for the construction of the transmission lines. These 2 PAPs are MUTAMBUKA Thadee and SIMPUNGA Isaac. They have been fully compensated for the loss of structure and land.

A total of 440 PAPs have been listed as persons who will lose agricultural land as well as crops in order to pave way for the construction of the transmission lines. Annex 2 and 3 contains a full list of these PAPs and the size of land that will be acquired or lost by the PAPs in order to construct the lines, erect the towers and create the required ROW. Table 4 in section 2.2.4 also outlines the entire list of crops that have been profiled during the study and which will be destroyed in order to implement this project.

3.3 Magnitude of expected loss

The magnitude and impact of the expected loss can be termed as significant especially because most of the land targeted for acquisition is mainly utilized by the PAPs for cultivation of crops. However, bearing in mind that the size of land required for the installation of the towers and creation of Right of Way is small the loss can be summarized as moderately significant.

3.4 Information on vulnerable groups or persons

Vulnerable groups or persons are defined as Widow Female household heads; HIV/Aids afflicted Persons, Orphans and Vulnerable children, small scale farmers, internally displaced persons, elderly persons. The project is not going to acquire land, or deny access to resources by virtue of this project to any group or persons defined as vulnerable. The socio-economic survey and IOL specifically considered this aspect part of the survey and the findings indicate that no affected person falls in this category.

4.0 Legal Framework

4.1 Relevant local laws and customs that apply to resettlement

In 2005, the Organic Land Law was promulgated which recognized private ownership, both customary and legal, of most of the hillside areas. Previously, all land belonged to the State, which meant it was illegal to buy and sell land, and any required expropriation would result in users of that land being compensated for assets lost at a fixed rate set in 1996. As a result, there have been serious shortcomings in the national processes associated with land expropriation, resettlement and associated compensation payments. The new Expropriation Law (2007) outlines rights and compensation procedures for land expropriated for public interest, whilst the newly promulgated Valuation Law (2007) stipulates valuation methods to be applied to those assets expropriated.

Other pertinent laws relating to land administration, ownership and expropriation in Rwanda, include:

- The Rwandan Constitution, promulgated in 2003;
- Presidential Order N° 54/01 of 12/10/2006 determining the structure, the responsibilities, the functioning and the composition of Land Commissions; and
- Ministerial Order N° 001/2006 of 26/09/2006 determining the structure of Land Registers, the responsibilities and the functioning of the District Land Bureau.

There are a number of differences between the Rwandan legislation and the World Bank Policy OP 4.12. The key differences relate to the general principles for resettlement including income restoration, eligibility criteria, and the notification period for expropriation and resettlement.

- Avoid Resettlement: according to OP4.12, resettlement should be avoided whenever possible, while national legislation states that 'expropriation of land will be done when deemed necessary for public purposes'.
- Notification period required: national legislation requires that property must be handed over 90 days after financial compensation has been paid, while OP4.12 requires that displacement must not occur before all necessary measures for resettlement are in place.
- Meaningful and participative consultation: the extent that Project Affected Persons are involved in meaningful participation required by Rwandan Law and OP4.12 are also different.
- Eligibility determination: where OP4.12 entitles those who have formal rights, those with claims to land and those with no recognizable legal right, to compensation, while national legislation entitles only those who are 'landholders' with legal possession of the land and who own property thereon.
- Monitoring: the level of monitoring required by Rwandan law is not as robust as that required by OP4.12 requirements.

- Fair and just compensation: the Expropriation and Valuation Laws provide for fair and just compensation to expropriated peoples eligible for compensation, the definition of ‘fair and just’ is not clearly defined, and therefore there is a risk that Project Affected People’s livelihoods may not be restored or improved after compensation and resettlement.

4.1.1 Statutory Land Laws

In February 1999, a draft revised land law was prepared, defining ownership of land, rights and obligations of land owners and transactions of land. The law recognizes private land, land owned by the state, and land owned by the sector. The current draft Land Law specifies:

- People with customary holdings less than 2 hectares and those with customary holdings between 2 and 30 hectares where the owner has a project and a development plan will be recognized as the owners.
- Transfer of title deeds requires prior consent of all family members.
- A land tax will be imposed.
- Undeveloped land reverts to the states private domain after three years.
- Holders of *ubukonde* land (originally distributed by clan head), known as *abagererwa*, will have the same rights as other customary owners.

4.1.2 Customary Land Laws

Two principal systems controlled land tenure in Rwanda, the ***Ubukonde*** System and the ***Igikingi*** System. These systems were different, but shared notions of collective ownership of land among members of patrilineages (*imiryango*).

- In the ***Ubukonde*** System , predominantly observed then, in the north and north west (currently Byumba, Gisenyi and Ruhengeri prefectures), people gained rights to large tracts of land, by being the first to clear and valorize the land (known as *gukonda*). In this system, a lineage held rights to land corporately and major decisions about managing landholdings were taken by the lineage chef (*umutware w’umuryango* or, in speaking of land specifically, *umukonde*). The *abakonde* lineages held economic and political power over their *ubukonde* and could grant rights to others to use land in their territory through a form of clientship known as *ubugererwa*. Clients were required to make payments to their patrons, most often in the form of a portion of the harvests or in manual labor in the patron’s fields or enclosure. There were three specific types of *ubukonde*, including *ubukonde bw’inzogera* (hunting grounds), *ubukonde bw’inka* (grazing lands), and *ubukonde bw’isuka* (agricultural lands). In all three types, the *umukonde* (*ubukonde* owner) allowed others access to these lands in exchange for gifts and/or labor.
- In the ***Igikingi*** System, predominantly observed then in the central, eastern and southern areas of Rwanda, land was distributed by the *mwami*⁴ or his chiefs (*abatware b’umukenke*) on the approval of the *mwami* to either heroes (*intwari*) from war or other individuals commanding respect in society. *Ibikingi* were vast tracts of land designed for grazing cattle. If the holder of an *igikingi* lost favor with the chief or lost his cattle,

⁴ The *mwami* was the political and spiritual leader of the central Rwandan kingdom. At the beginning of the twentieth century, the kingdom was in the midst of an expansion (through warfare) into bordering regions (present-day Kibungo and Cyangugu) of kinyaranda speaker.

through disease, mismanagement, or raiding, *the* chief seized his *igikingi* from him and gave it to someone else who had cattle. The holders of *ibikingi* had full control over the land and thus could partition it and allot plots (*amasambu*) to others in order to cultivate. These cultivators became clients and owned seasonal gifts and servitude to continue benefiting from the land bestowed on them. Both these systems have undergone significant reforms due to the socio – political turbulence Rwanda has under gone during the immediate pre-colonial, colonial, post colonial and post genocide eras.

OP/BP 4.12 Involuntary Resettlement (December 2001)

This Operational Policy details involuntary resettlement, emphasizing the severe economic, social and environmental risks, if unmitigated. It ensures that the population displaced by a project receives benefits from it and also covers those with usufruct or customary rights to land or other resources taken for the project. The Operational Policy is specifically inclusive, ensuring that all those affected both directly and indirectly by project developments are compensated as part of the project. Affected population, include those with income derived from informal sector and non-farm activities, and from common property resources. The absence of legal title does not limit rights to compensation.

The World Bank’s Policy objectives urge that involuntary resettlement be avoided whenever possible. If unavoidable, displaced persons need to:

- Share in project benefits,
- Participate in planning and implementation of resettlement programs, and
- Be assisted in their efforts to improve their livelihoods or standard of livings or at least to restore them, in real terms, to pre-displacement levels or levels prevailing prior to the beginning of project implementation, whichever is higher.

4.2 Gaps between local laws and World Bank Group policies, and describe project-specific mechanisms to address conflicts.

The table below outlines the gap between the local Rwanda Laws on land compensation and acquisition and that of the World Bank and describes the project-specific mechanisms to address these conflicts. Table 5 also outlines the entitlement policies for the PAPs between the government and World Bank. The distribution component will follow the World Bank policies in case of conflict with the local laws.

Table 5. Comparison of Rwandese Law and World Bank OP4.12 regarding compensation.

Category of PAPS/ Type of Lost Assets	Rwandese Law	World Bank OP4.12	Comparison/Gaps	Recommendations
Land Owners	Cash compensation based upon market value. Under statute. Land for Land under Customary	Recommends land-for-land compensation. Other compensation is at replacement cost.	No major difference other than the bank preferring land for land compensation other than land for cash.	Na

	Law			
Land Tenants	Entitled to compensation based upon the amount of rights they hold upon land under relevant laws.	Are entitled to some form of compensation whatever the legal recognition of their occupancy.	The Bank diverges greatly with the Rwanda Law whereas the law in Rwanda refuses to recognise illegal land owners and does not provide any compensation, the bank provides for some form of compensation irrespective of the status.	<p><i>Design distribution routes to avoid resettlement or minimize displacement of people e.g. siting and routing of the network and other activities will try to avoid land held by illegal tenants.</i></p> <p><i>Dialogue with policy makers will be initiated to explore the possibility of giving compensation to illegal tenants</i></p>
Land Users	<p>In some cases land users have some form of secured tenure extended to them under new laws. In other cases land users not entitled to compensation for land, entitled to compensation for crops and any other economic assets.</p> <p>Land for Land under customary</p>	Entitled to compensation for crops, may be entitled to replacement land and income must be restored to pre-project levels at least.		<p><i>Design route of the lines to avoid resettlement or minimize displacement of people e.g. siting and routing of Program activities will try to avoid land held by illegal tenants.</i></p> <p><i>The program will have a strategy for enabling the PAPs restore their incomes to at least pre-UERP program levels</i></p> <p><i>Dialogue with policy makers will be initiated to explore the possibility of giving compensation to all illegal tenants</i></p>
Owners of "Non permanent"	Cash compensation based on	Entitled to in-kind compensation	Similarity is evident	<i>Dialogue with policy makers will be initiated to</i>

Buildings	market value or entitled to new housing on authorized land under government (state or local) housing programs.	or cash compensation at full replacement cost including labor and relocation expenses, prior to displacement.		<i>explore the possibility of including labor and relocation expenses prior to displacement</i>
Owners of "Permanent" buildings	Cash Compensation is based on market value.	Entitled to in-kind compensation or cash compensation at full replacement cost including labor and relocation expenses, prior to displacement.	Similarity is evident	<i>Dialogue with policy makers will be initiated to explore the possibility of including labor and relocation expenses prior to displacement</i>
Perennial Crops	Cash compensation based upon rates calculated as an average net agricultural income.	As specified in the RPF once approved by the Bank and disclosed in Rwanda and at the Bank infoshop. For crops that exist for years consideration needs to be made for the value of harvests lost until replacement of such crops come into full production for those given alternative land where to grow these crops.	Similarity is evident	NA

Because it is not clear how long the policy dialogue will take to explore possibilities of including sections in the laws to cater for the differences cited in the table above, the Bank Policy was taken so as to ensure that the PAPs are better off after the project

4.3. Land Measurements, Census Survey, Inventory of Losses and Valuation of and compensation for losses

This section describes the methodologies that were used to value assets including measuring land and structures, trees, crops and other assets and determination of replacement costs.

4.3.1 Land Measurements/Valuation

The UERP/PCU used a team of technicians from Gasabo district land valuation bureau, ELECTROGAZ representatives, sector and cell representatives as well as UERP staff to measure the different individual parcels of land that will be acquired for construction of the cabins. The total size of land is 2.5741 ha in size.

The process of taking measurements of the land to be acquired by ELECTROGAZ was done in full presence of the PAPs and thereafter verification was done to ensure agreement in sizes recorded. The PAPs were informed of the day that the land measurement would be done and informed to be present on that day. The unit of land measurement was done in m² and later converted into hectares. After the measurements, the PAPs were told to verify the same and eventually signed a document indicating that indeed the size of land measured is correct.

4.3.2 Crop and Trees Valuation

The process of taking count of the number of trees and crops that will be destroyed was done in full presence of the PAPs and thereafter verification was done to ensure agreement in numbers recorded. The PAPs were informed of the day that the crop valuation would be done and informed to be present on that day. Trees were counted physically and the crops valuation was done based on size of the land where the crop is existing.



Figure 1. Crops in project area

4.3.3 Roles of the UERP/PCU and ELECTROGAZ during Land Measurements

The UERP/PCU and ELECTROGAZ played an oversight role in monitoring and ensuring that the process of surveying the land was done in an open and transparent manner and in the presence of all the PAPs. The UERP/PCU informed the PAPs advance and within adequate time on the dates when the survey and measurements would be done and insisted upon the presence of the PAPs in all these meetings.

4.3.4 Roles of the PAPs during Land Measurements

The primarily role of the PAPs during the process of measuring land was to be physically present and ascertain that indeed the measurements were correct and to their satisfaction. They upon being adequately satisfied that these measurements were correct appended their signatures as proof of satisfaction with measurements.

4.3.5 Roles of the Gasabo District Administration during Land Measurements

The Gasabo District Land Valuation Bureau was the institution the UERP/PCU to undertake measurements, survey and valuation of land targeted for the project. The role of this department was to take physical measurements of the land in the presence of the PAPs and UERP/PCU and use this to demarcate the size of land to be acquired.

The Land Valuation law was promulgated in 2007 and outlines the role of the Land Valuation Bureaus to provide independent 'fair and just' valuation of land and affected assets in the event of expropriation. Land valuation bureaus are free to be established all over the country, although to date only one has been established in Kigali Province.

4.4 Compensation Framework/ Project Resettlement Policy (RP)

There is already some compensation in form of cash provided to the PAPs following displacement that has occurred after identification of land to be acquired and consultations on the same. Annex 3 and 4 indicate the number of PAPs who have been compensated after valuation of land and crops was done. Section 4.4.1 below outlines the general compensation approach that was taken in ensuring adequate compensation as is required.

4.4.1 General Approach

Policies to compensate loss of land or property by the proposed project are based on Rwandan laws and regulations stipulated by local authorities, and outlined in the World Bank Operational Directives/Policies on involuntary resettlement. The primary objective of the land acquisition and Resettlement Action Plan (RAP) is to restore the income and living standards of the affected persons within a short period of time after resettlement and with as little disruptions as possible. Particular attention was given to the needs of the poorest and most vulnerable groups.

4.4.2 Principle of Compensation

According to the legal and policy requirements of the Rwanda Government and the World Bank, the principles of compensation and entitlements established for the project are as follows:

- That compensation and entitlements provided to PAPs ensure that pre-project standards of living are maintained or improved;
- That land temporarily occupied is kept to a minimum;

- That all PAPs, legal and illegal, are taken into consideration and accounted for;
- That per capita land holding after land acquisition is sufficient to maintain livelihood standards;
- Where land allocation per capita is not sufficient to maintain livelihood, that other income generating activities are provided for;
- That all PAPs are adequately informed on eligibility, compensation rates and standards, livelihood and income restoration plans, and project timing; and
- That civil works should not start until resettlement measures that include compensation have been undertaken or implemented.

4.4.3 Compensation Eligibility

All PAPs and organizations (whether public or private) who lose land, buildings/houses, crops or sources of income will be compensated or rehabilitated according to the types and amount of their losses (permanent and temporary).

The cut off date was the date that the survey team in Electrogaz commenced the survey process which was on the 20th September, 2007.

The cut-off date for compensation eligibility was set once all detailed measurements had been completed. Cultivating land, constructing buildings or settlements in project affected areas after the cut-off date will not be eligible for compensation or subsidies. Compensation was also not paid for any structures erected, or crops and trees planted purely for the purposes of gaining additional compensation.

4.4.4 Categorization of PAPs

Category 1: Structures

- Those who will lose all structures such as residential,
- Those who will lose some part of their structures such as residential, kiosks, stalls,

Category 2: Agricultural Land

- Those who will lose all or part of their trees e.g. Eucalyptus, Grevillea, Pine/Cyprus etc
- Those who will lose all or part of their field crops e.g. Maize, Onions, Beans, etc

4.4.5 Restorative Courses of Action

To minimize the negative economic impact of project activities on commercial establishments, it is recommended that these establishments be treated in such a manner as to allow them to operate with minimal disruptions and/ or disturbances.

Other category of losses including loss of crops and land and minimization of these effects will be through ensuring that the distribution lines and sub stations avoid as much as possible built up areas with housing or areas under intensive cultivation of land. In most cases this might not be possible because Rwanda is a tiny country and almost all the land is under cultivation or residential use thus compensation will be provided as appropriate.

4.4.6 Entitlement Matrix

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. UERP will use prevailing market rates for land structures and trees as practiced by the international valuation standards committee (2008) rules. UERP also has a policy that ensures that any cut or uprooted vegetation is left for owners use after compensation. All assets require valuation before compensation and resettlement. Table 6 outlines the entitlement for the PAPs which was used in this project.

Table 6. Entitlement Matrix

Asset Acquired	Type of Impact	Entitled Person	Compensation Entitlement
Agricultural land	<p>No displacement: Cash compensation for affected land equivalent to market Value Less than 20% of land holding affected,</p> <p>The remaining land remains economically viable.</p>	Farmer/ title holder	Cash compensation for affected land equivalent
		Tenant/ lease holder	Cash compensation for the harvest of the affected land equivalent to average market value of last 3 years, or market value of the crop for the remaining period of tenancy/ lease agreement, whichever is greater.
	<p>Displacement: More than 20% of land holding lost or less than 20% of land holding lost but remaining land not economically viable.</p>	Farmer/ Title holder	<p>Land for land replacement where feasible, or compensation in cash for the entire landholding according to PAP's choice.</p> <p>Land for land replacement will be in terms of a new parcel of land of equivalent size and productivity with a secure tenure status at an available location which is acceptable to the PAP. Transfer of the land to the PAP shall be free of taxes, registration & other costs.</p> <p>Relocation assistance (costs of shifting + assistance in re-establishing economic trees + allowance up to a maximum of 12 months while short- term crops mature)</p>

			Relocation assistance (costs of shifting + assistance in re-establishing economic trees + allowance up to a maximum of 12 months while short- term crops mature)
		Tenant/Lease holder	<p>Cash compensation equivalent to average of last 3 years' market value for the mature and harvested crop, or market value of the crop for the remaining period of tenancy/ lease agreement, whichever is greater.</p> <p>Relocation assistance (costs of shifting + assistance in re-establishing economic trees + allowance up to a maximum of 12 months while short- term crops mature</p> <p>Relocation assistance (costs of shifting + assistance in re-establishing economic trees + allowance up to a maximum of 12 months while short- term crops mature)</p> <p>Relocation assistance (costs of shifting + allowance).</p>
Commercial Land	No displacement: Land used for business partially affected, limited loss	Title holder/ business owner	<p>Cash compensation for affected land</p> <p>Opportunity cost compensation equivalent to 5% of net annual income based on tax records for previous year (or tax records from comparable business, or estimates where such records do not exist).</p>
		Business owner is lease holder	Opportunity cost compensation equivalent to 10% of net annual income based on tax records for previous year (or tax records from comparable business, or estimates where such records do not exist)

	Displacement: Premise used for business severely affected, remaining area insufficient for continued use	Title holder/business owner	<p>Land for land replacement or compensation in cash according to PAP's choice. Land for land replacement will be provided in terms of a new parcel of land of equivalent size and market potential with a secured tenure status at an available location which is acceptable to the PAP.</p> <p>Transfer of the land to the PAP shall be free of taxes, registration & other costs.</p> <p>Relocation assistance (costs of shifting + allowance)</p> <p>Opportunity cost compensation equivalent to 2 months net income based on tax records for previous year (or tax records from comparable business, or estimates)</p>
		Business person is lease holder	<p>Opportunity cost compensation equivalent to 2 months net income based on tax records for previous year (or tax records from comparable business, or estimates), or the relocation allowance, whichever is higher.</p> <p>Relocation assistance (costs of shifting)</p> <p>Assistance in rental/ lease of alternative land/ property (for a maximum of 6 months) to re- establish the business.</p>
Residential Land	No displacement: Land used for residence partially affected, limited loss, and the remaining land remains viable for present use.	Title holder	Cash compensation for affected land

		Rental/lease holder	Cash compensation equivalent to 10% of lease/ rental fee for the remaining period of rental/ lease agreement (written or verbal)
		Title holder	<p>Land for land replacement or compensation in cash according to PAP's choice.</p> <p>Land for land replacement shall be of minimum plot of acceptable size under the zoning law/ s or a plot of equivalent size, whichever is larger, in either the community or a nearby resettlement area with adequate physical and social infrastructure systems as well as secured tenure status.</p> <p>When the affected holding is larger than the relocation plot, cash compensation to cover the difference in value.</p> <p>Transfer of the land to the PAP shall be free of taxes, registration & other costs.</p> <p>Relocation assistance (costs of shifting + allowance)</p>
	Displacement: Premise used for residence severely affected, remaining area insufficient for continued use or becomes smaller than minimally accepted under zoning laws	Rental/lease holder	<p>Refund of any lease/ rental fees paid for time/ use after date of removal</p> <p>Cash compensation equivalent to 3 months of lease/ rental fee</p> <p>Assistance in rental/ lease of alternative land/ property</p> <p>Relocation assistance (costs of shifting + allowance)</p>

Buildings and structures	No displacement: Structure partially affected but the remaining structure remains viable for continued use	Owner	Cash compensation for affected building and other fixed assets Cash assistance to cover costs of restoration of the remaining structure
		Rental/lease holder	Cash compensation for affected assets (verifiable improvements to the property by the tenant). Disturbance compensation equivalent to two months rental costs
	Displacement: Entire structure affected or structure partially affected but the remaining structure is not suitable for continued use	Owner	Cash compensation for entire structure and other fixed assets without depreciation, or alternative structure of equal or better size and quality in an available location which is acceptable to the PAP. Right to salvage materials without deduction from compensation Relocation assistance (costs of shifting + allowance) Rehabilitation assistance if required (assistance with job placement, skills training)
		Rental/lease holder	Cash compensation for affected assets (verifiable improvements to the property by the tenant) Relocation assistance (costs of shifting + allowance equivalent to four months rental costs) Assistance to help find alternative rental arrangements Rehabilitation assistance if required (assistance with job placement, skills training)

		Squatter/informal dweller	<p>Cash compensation for affected structure without depreciation</p> <p>Right to salvage materials without deduction from compensation</p> <p>Relocation assistance (costs of shifting + assistance to find alternative secure accommodation preferably in the community of residence through involvement of the project)</p> <p>Alternatively, assistance to find accommodation in rental housing or in a squatter settlement scheme, if available)</p> <p>Rehabilitation assistance if required assistance with job placement, skills training)</p>
		Street vendor (informal without title or lease to the stall or shop)	<p>Opportunity cost compensation equivalent to 2 months net income based on tax records for previous year (or tax records from comparable business, or estimates), or the relocation allowance, whichever is higher.</p> <p>Relocation assistance (costs of shifting)</p> <p>Assistance to obtain alternative site to re- establish the business.</p>
Standing crops	Crops affected by land acquisition or temporary acquisition or easement	PAP (whether owner, tenant, or squatter)	Cash compensation equivalent to average of last 3 years market value for the mature and harvested crop.
Trees	Trees lost	Title holder	Cash compensation based on type, age and productive value of affected trees plus 10% premium
Temporary	Temporary acquisition	PAP (whether	Cash compensation for any assets affected (e. g.

Acquisition		owner, tenant, or squatter)	boundary wall demolished, trees removed)
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4.4.7 Compensation Standards

The following section describes the compensation standards adopted for this Resettlement Action Plan. The compensation rates used were based on the newly gazetted rates for land and crop compensation prepared by the Mayor of Kigali.

4.4.8 Compensation for Loss of Cultivated Land and Crops

Because the land acquired per person is small, and due to the shortage of land in Rwanda, crop loss will be compensated in cash to PAPs. The rates used are those officially availed in 2008 by the Office of the Mayor in Kigali and are based on the prevailing market rates and location by district and sector.

The measurements and valuation of the existing land has already been done by qualified land valuers from Gasabo District, ELECTROGAZ/UERP. The rate for compensation used was based on the published and gazetted land compensation figures prepared by the Kigali City Mayor in November 2008. These guidelines indicate the amount of money to be compensated based on land acquired by district and by cell.

The land owners/PAPs have therefore been compensated for loss of land at those rates. The PAPs have been informed of how this calculation for compensation has been done and it has been agreed that compensation to the PAPs will be in cash. The PAPs have already appended their signatures willingly and in the presence of the local government authorities on documents prepared and that show how much parcel of land they own that will be acquired and how much that will translate into cash based on the current land valuation rates. Table 7 and 8 below is a tabulation of the cash compensation that the PAPs will get from the loss of land that will be acquired for construction.

Table 7. Compensation for Affected Farmland

No of Towers	Land Required for single Tower(225m2)	Hectarage Affected for towers
106	225m2	2.3Ha

Table 8. Total Land Compensation

Total size of Land to be Acquired including spaces for cabins	Total Land Compensation (FRW)
2.5741 Ha	122 145 102

4.4.9 Calculation of Crop Compensation

Compensation is based on the land and on current market prices of affected crops. The table below shows the crops dominant in the project area and the compensation rates based on the current market value. Calculation for the compensation of the crops was done by valuing the size of land for which these crops were planted and then using the known market crops rates as compensation. Compensation of trees was undertaken by counting the number of trees and then compensating each piece of tree using the existing market rates for such trees. Market rates for

the crops and trees were derived from the Ministry of Agriculture (MINAGRI) average monthly rates for crops in the local market.

Table 9 General List of Damaged Crops and Compensation Rates

Nature of crops	Unit	Rates in Rwandan francs
Beans	m2	80
Peas	m2	75
Ground nuts	m2	216
Sorghum	m2	60
Maize	m2	72
Irish potatoes	m2	280
Yams	m2	200
Potatoes	m2	240
Cassava	m2	286
"Isombe"	tree	1200
Onions	m2	400
Tomatoes	m2	800
Eggplant	m2	1000
Carrots	m2	240
Lettuce	m2	200
Others legumes	m2	50
"Inzuzi"	plant	4000
Pineapples	m2	1350
Seedlings	Plant of 0-2 years of age	200
Maracouja	Plant of 0-1 year of age	700
Plum	Plant of at least 1 year	1000
Cow Peas	Plant of 0-1 year of age	800
	Plant of at least 1 year	1000
Pawpaw	Plant of 0-1 year of age	1000
	Plant of at least 1 year	2000
Oranges and Citrus trees	Plant of 0-1 year of age	840
	Plant of 1-2 years of age	1720
	Plant of 2-3 years of age	2700
	Plant of 3-4 years of age	3500
	Above 4 years	4320
Avocado	Plant of 0-1 year of age	2670
	Plant of 1-2 years of age	5510
	Plant of 2-3 years of age	8680
	Plant of 3-4 years of age	12200
	Above 4 years	16000
Guava	Plant of 0-1 year of age	1060
	Plant of 1-2 years of age	2200
	Plant of 2-3 years of age	3350
	Plant of 3-4 years of age	4350
	Above 4 years	5340
Other tree bearing fruits	Plant of 0-1 year of age	800
	Plant of 1-2 years of age	1400
	Plant of 2-3 years of age	2270
	Plant of 3-4 years of age	3330
	Above 4 years	5330
Medicinal plant	Young	300

	Medium Adult	600 1200
Coffee	Plant of 0-1 year of age Plant of 1-2 years of age Above 2 years	660 1080 1920
Banana	Plant	1488
Pepper	plant	200
Reeds	m2	350
Tripsacumu	m2	350
"Sitariya"	m2	350
Sisal	m2	350
"Citronelle"	m2	350
Bamboo	m2	300
Euphorbia	m	500
Euphorbia fence	m	500
Dracaena	m	500
Dracaena fence	m	500
Reed fence	m	500
Cyprus fence	m	1500
Fence of Shrub	Young Medium Adult	200 500 500
Ficus	Young Medium Adult	200 1000 4000-6000
"umuko"	Young Medium Adult	200 600 1000
Other shrub	Young Medium Adult	100 200 600
Riein	Young Medium Adult	100 300 400
Black-White	Young Medium Adult	200 1200-1800 2000-3000
Eucalyptus	Young 3 to 5 years 5 to 10 years	300 720 2400
Pinus Greve	0.8-15 cm of diameter 16-19 cm of diameter 20-29 cm of diameter 30-39 cm of diameter 40-49 cm of diameter 50-59 cm of diameter 60-69 cm of diameter	1000 2000 3000 4000 4500 5000 5500
Cypress Cedrela Jacaranda	0.8-15 cm of diameter 16-19 cm of diameter 20-29 cm of diameter 30-39 cm of diameter	1200 2500 4000 4500

	40-49 cm of diameter	5500
	50-59 cm of diameter	6000
	60-69 cm of diameter	6500
Eucalyptus	16-19 cm of diameter	4500
Acacia	20-29 cm of diameter	4700
Araucaria	30-39 cm of diameter	5000
polyciasfulva	40-49 cm of diameter	5300
	50-59 cm of diameter	6000
	60-69 cm of diameter	6500
Entandrophragma and other forest non planted trees	16-19 cm of diameter	5200
	20-29 cm of diameter	5300
	30-39 cm of diameter	5600
	40-49 cm of diameter	6500
	50-59 cm of diameter	7500
	60-69 cm of diameter	8000
Flowers and garden trees	m2	180

4.4.10 Summary of Permanent Crop Loss in Project Affected Area

Compensation for crop loss is made on the assumption that the only land that will be permanently affected will be that occupied by tower bases. The remainder of the land will be affected for a period of one-two years only when construction of the tower sites and RoW is underway.

Table 10. Total Compensation for structures and crops (FRW)

Total Compensation for structures and crops (FRW)
94 574 341

4.4.11 Compensation for Residential Land, Houses, and Fixtures

Residential land, houses, buildings and other fixture losses will be directly and fully compensated at replacement cost free of demolition expenses and salvaged materials. Houses, out-buildings, structures and related fixtures will be compensated in cash at replacement cost with monies paid directly to the PAPs.

A total of 2 houses will be affected by the Project in terms of displacement or destruction. According to the field survey aimed at undertaking Inventory of Losses (IOL) observations have indicated that certain construction materials may be re-used after displacement. Thus, replacement costs takes into consideration the value of such re-used materials (e.g. eucalyptus poles) and adjustments have been made accordingly.

There are only 2 structures (commercial houses) in the entire project that will be permanently destroyed and they are owned by MUTAMBUKA Thadee and SIMPUNGA Isaac.

4.4.12 Resettlement Allowances for Commercial Building Owners

In addition to the compensation for houses and land, relocation allowances will be paid to PAPs. These relocation allowances cover relocation and resettlement costs, including rent of temporary accommodation that may be due between the period of demolition of the old house and the

construction of a new one (i.e. transition allowance). The cost of moving all household items and any salvageable materials to the new house, or from the rented house to new house (i.e. moving allowance) will also be paid. These allowances will be payable as a lump sum to PAPs. There are only 2 PAPs who will have their commercial buildings demolished and will hence be entitled to this allowance.

Payment of cash compensation for lost assets was the only option implemented in this RAP. This is because of 2 reasons namely;

- During the consultation and negotiations with the PAPs, there was a tremendous preference demonstrated by the PAPs towards cash based compensation.
- Secondly in view of the fact that the livelihoods of the PAPs are not entirely land-based and the land taken for the project is a small fraction of the affected asset and the residual is economically viable; (b) active markets for land, housing, cash compensation was considered to be sufficient to replace the lost land and other assets at full replacement cost in local markets.

4.4.13 Consultations with PAPs on Acceptable Alternatives.

Several and regular consultation meetings have been held with the PAPs to discuss issues related to resettlement and compensation. Consultation began in early 2008 with all the heads of sectors and cells where the routes were targeted. These consultations were done in the presence of local administration and ELECTROGAZ /UERP/PCU staff played a leading role in facilitating this process. During these consultations, the PAPs were presented with acceptable alternatives to compensation and assistances.

4.5 Resettlement Sites

This project does not require any form of community relocation and to that effect there was no need to identify resettlement sites which would entail involvement of affected communities in sites identification, design of strategies for relocations etc.

The displacement will also not involve the allocation of agricultural land or pasture/rangeland because the PAPs have accepted to receive cash compensation for the crops and land which they will use to identify other parcels of land. For this reason the PAPs were not involved in identifying potential new sites as would have been the case would this have been a requirement.

4.6 Income Restoration

UERP avoided and minimized the displacement of people by exploring alternative project designs to bypass human settlements. Where displacement is unavoidable, the sponsor executes 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. The following actions and steps were taken during the RAP process;

- Inform affected people of their options and rights concerning resettlement;
- Provided with technically and economically feasible options for resettlement based on consultation with affected people and assessment of resettlement alternatives;

- Even though physical relocation was minimal (only s structures) the affected people were provided with prompt and effective compensation at full replacement value for loss of assets due to project activities;

Livelihood Restoration—In cases where resettlement affects the income-earning capacity of the displaced families, compensation alone does not guarantee the restoration or improvement of their living standards. The proposed income restoration does not require change in livelihoods, development of alternative farmlands or some other activities that require a substantial amount of training, time for preparation, and implementation. As noted in the introduction, World Bank encourages the need for projects to undertake resettlement as a sustainable development initiative, that is, an initiative that leads to an improved standard of living for project affected people. The following actions and recommendations were made in terms of restoration of livelihoods namely;-

Wage-based livelihoods—Wage earners in the community will benefit from job placement, a provision already made in contracts with project subcontractors for employment of qualified local workers and recruitment of local labor for unskilled PAPs. A total of 200 local laborers will be employed during the construction phase of the project.

There is little if at all any risk associated with impoverishment because the PAPs will only loose very small portions of their land that they use for agriculture compared to the remaining sizes of land that they possess.

The table 11 below spells out the restoration strategies for each category of impact.

Impact Category	Restoration Strategies
Loss of Land	Compensation (Cash) and providing jobs to PAPs during construction
Loss of Crops/Trees/	Compensation (Cash) and providing jobs to PAPs during construction
Loss of Structures (Commercial)	Compensation (Cash) and providing jobs to PAPs during construction
Loss of residential houses	No PAP will have residential house destroyed

5.0 Institutional Arrangements and Responsibility for Implementation

This section describes the institutions responsible for delivery of each item in the entitlement policy and coordination of activities associated with and described in the RAP.

5.1 Overall Coordinating Agency-Does it have the necessary mandate

The overall coordination in the implementation of the RAP will be done by the UERP/PCU which will be responsible for creating a database of all the PAPs, facilitating the IOL and Socio-economic surveys, valuation and preparation of the RAP. Stakeholder consultation will be coordinated by UERP/PCU who will provide resources for informing the PAPs on the times for the meeting, venue booking among others. The UERP/PCU will be responsible for paying the PAPs for the losses incurred once the PAPs have accepted that the compensation package.

The existing local land administration institutions like the district land bureau, and resettlement committees at district, sector and cell level will also play an active role in this process

5.1.1 Roles of Local Authorities:-

Notification of land resource holders

In cases where there was clearly no identified owner or user, the respective local authorities and leaders, e.g. Umidugudu leaders were used to notify the community leaders and representatives who will help to identify and locate the land users. These leaders and representatives will also be charged with the responsibility of notifying their members about the established cut-off date and its significance. The users will be informed through formal notification in writing and by verbal notification delivered in the presence of the all the relevant stakeholders.

Gasabo District Land Bureau; This is the institution mandated to oversee all the land administration issues including technical duties at the district level. The land bureaus carry out technical and administrative land duties including registration etc it is headed by a District Land Officer. The land bureau was engaged in the preparation of all the RAPs including involvement in all the negotiations before transferring the land as required by law. They were engaged in land valuation and also hear the grievances by all the PAPs and resolve them if they can before referring to the high court. They were also be used in the design of the RAP as much as possible in order to ensure that community buy in is present at an early stage hence reducing disputed or grievances.

Land Resettlement Committees; According to the new land policy for Rwanda there exist land resettlement committees at various levels of the local administration. These committees are charged with the responsibility of ensuring that any form of resettlement is just and conforms to the Land Law of the country. The committees exist at the district; sector and village level and they were a significant entry point by the UERP/PCU in moving forward any process related to compensation, land valuation, and grievance redress. They were also be used in the design of the RAP as much as possible in order to ensure that community buy in is present at an early stage hence reducing disputed or grievances.

Village Level Land Committees;-At the Cell/Imidugudu level, there are in place village-level mediators (*abunzi*) whose work is to hear disputes, especially land disputes. The *abunzi*, or mediation committees, have mandatory jurisdiction over land disputes involving amounts less than three million RwF, which means over most land disputes. The *Abunzi* also have mandatory jurisdiction over succession and boundary disputes involving less than three million RwF. The *abunzi* will be used in the UERP project as the first stop for resolving disputes and grievances following land acquisition. They will be involved in the compensation process from the beginning to the end. They will also be used in the design of the ARAP as much as possible in order to ensure that community buy in is present at an early stage hence reducing disputed or grievances.

Documentation of Holdings and Assets

The Gasabo District local authorities, and local leaders, Electrogaz, UERP representatives will arrange meetings with affected individuals to discuss the compensation process. For each individual or household affected, officials will complete a compensation report containing necessary personal information on, the affected party and those that he/she claims as household members, total land holdings, inventory of assets affected, and information for monitoring their future situation. This information will be confirmed and witnessed by local elders. The reports will be kept current and will include documentation of lands surrendered. This is necessary because it is one way in which an individual can be monitored over time.

Agreement on Compensation and Preparation of Contracts

All types of compensation will be clearly explained to the individual and households involved. UERP and the Local Authorities will draw contracts listing all property and land being surrendered, and the types of compensation selected. A person selecting in-kind compensation will have an order form signed and witnessed. The compensation contract and the grievance redress mechanisms will be read aloud in the presence of the affected party and the Local Community Elder prior to signing.

6.0 Participation and Consultation

A stakeholder analysis was undertaken in order describe the various stakeholders in terms of their interests and how the project would affect them. This then led to the preparation of a stakeholder grouping where all the identified stakeholders were categorized into the following the following groups namely;

- 1) Government institutions-District Land Committee, Office of Good Governance, Land Resettlement Committees
- 2) Project Affected Persons (PAPs).

Keeping affected people fully informed of their rights and responsibilities is crucial to the success of resettlement planning. To achieve this objective, the PAPs were provided with the relevant information in an accessible and understandable manner using the Land Resettlement Committees and village elders.

Several and regular consultation meetings have been held with the PAPs to discuss issues related to resettlement and compensation. Consultation began in early 2008 with all the heads of sectors and cells where the routes were targeted. These consultations were done in the presence of local

administration and ELECTROGAZ /UERP/PCU staff played a leading role in facilitating this process.

The objective of these consultations was to secure the participation of all people affected by the project in their own resettlement planning and implementation, particularly in the following areas:

- alternative project design;
- assessment of project impacts;
- resettlement strategy;
- compensation rates and eligibility for entitlements;
- choice of resettlement site and timing of relocation;
- development opportunities and initiatives;
- development of procedures for redressing grievances and resolving disputes; and
- mechanisms for monitoring and evaluation and for implementing corrective actions.

Formal consultations convened by UERP targeting relevant government authorities and host communities were conducted. The discussions centred on the effects of the project and measures to mitigate those effects.

The public consultations was also used in informing the PAPs about the cut off date, informing the PAPs how the RAP information will be disseminated to the affected populations and stakeholders, including information about compensation for lost assets, eligibility for compensation, resettlement assistance, and grievance redress.

The valuation process and Inventory of Losses (IOL) was also conducted in a participatory process where all the stakeholders and PAPs were consulted and made aware of the date and time for the IOL, and socio-economic surveys which were conducted in the presence of the PAPs.

Affected populations were engaged in the implementation and monitoring of the RAP first and foremost by being made aware of the grievance redress channels if dissatisfied with the process as well as the inclusion of the relevant administrative institutions engaged in land administration in Gasabo district in the whole process.

7.0 Grievance Redress Mechanism

In order to ensure that PAPs grievances and complaints on any aspect of the land acquisition, compensation, and resettlement are addressed in a timely and satisfactory manner, and that all possible avenues are available to PAPs to air their grievances, a well defined grievance redress mechanism will be established by the Project.

Grievances may arise from members of communities who are dissatisfied with (i) the eligibility criteria, (ii) community planning measures, or (iii) actual implementation. This chapter sets out the measures to be used to manage grievances.

7.1 Overview

The overall process of grievance is as follows:-

1. During the initial stages of the valuation process, the affected persons will be given copies of grievance procedures as a guide on how to handle the grievances.
2. The process of grievance redress will start with registration of the grievances to be addressed for reference, and to enable progress updates of the cases.
3. The project will use a local mechanism, which includes resettlement committees, peers and local leaders of the affected people. These will ensure equity across cases, eliminate nuisance claims and satisfy legitimate claimants at low cost.
4. The response time will depend on the issue to be addressed but it should be addressed with efficiency.
5. Compensation will be paid to individual PAPs only after a written consent of the PAPs, including both husband and wife.

Should a PAP refuse the compensation suggested, he/she could appeal to the UERP/PCU and Land Authority. In case of failure to agree on compensation, the individual PAP has the right to take his/her case to the civil court for litigation.

Where disputes arise between principle parties and PAPs, the initially preferred means of settling grievances is by arbitration. Grievances will be initially addressed at the Local Level through the Local Level Compensation Structures using the village elders and heads of the cells.

Before taking the grievances to the civil courts, the Gasabo District Land Bureau and Land Bureaus at the sector and cell level are the first point of grievances redress and the PAPs have been informed about the same.

The office of the mayor for the Gasabo and the Good Governance office in Gasabo district level is also another one of the acknowledged institutions for which the PAPs have been made aware of as avenues for expressing discontent and disapproval to the resettlement and compensation process.

If the complaint is not resolved at this level, the aggrieved party have been informed that should these two institutions fail to offer them satisfactory redress then the highest judicial institution in Rwanda (Rwanda-High Court) provides an avenue for appeal and hearing.

7.2 Grievance redress process

At the time that the individual resettlement plans are approved and individual compensation contracts are signed, affected individuals and homesteads will have been informed of the process for expressing dissatisfaction and to seek redress. The grievance procedure will be simple and administered as far as possible at the local levels to facilitate access, flexibility and ensure transparency.

All the grievances will be channeled to the existing structures in Rwanda for handling grievances beginning with the traditional institutions as the first stop before resorting to the Rwanda Courts of Law as the last resort. A grievance log will be established by the project and copies of the records kept with all the relevant land authorities at the district, sector and village level and will be used in monitoring of complaints. There will be no fees charged for registering complaints and all complaints recorded will be responded to within a period of not less than 7 days from the time of appeal.

Electrogaz being a party to the contract would not be the best office to receive, handle and rule on disputes. Therefore, taking these concerns into account, all grievances concerning non-fulfilment of contracts, levels of compensation, or seizure of assets without compensation should be addressed to the local leader/committee for resolution. As is normal practice under customary law, all disputes in communities are solved by the leaders after a thorough investigation of the facts using the services of his officials. For cases affecting land in Kigali, grievances are first to be addressed to the Kigali City, before being addressed by the courts of law.

At the village/cell level, all grievances will be heard by the already in place village-level mediators (*abunzi*) whose work is to hear disputes, especially land disputes. The *abunzi*, or mediation committees, have mandatory jurisdiction over land disputes involving amounts less than three million RwF, which means over most land disputes. The *Abunzi* also have mandatory jurisdiction over succession and boundary disputes involving less than three million RwF. The *abunzi* will be used in the UERP project as the first stop for resolving disputes and grievances following land acquisition. They will be involved in the compensation process from the beginning to the end.

If the verdict rendered by the village leaders is not acceptable to either the individual affected or to Electrogaz, then the parties in their compensation contract would have agreed that the matter would be appealed to the District Land Bureau, whose decision would be final and binding on the parties.

Notwithstanding that the grievance redress mechanism accepts that the compensation and resettlement plans will be (contracts) binding under statute, but it also recognizes that customary law is the law that governs land administration and tenure in the rural/village areas, i.e. areas outside Kigali, and is what most Rwandans living in these areas are used to and understand.

The grievance redress mechanisms is designed with the objective of solving disputes at the earliest possible time which will be in the interest of all parties concerned and therefore implicitly discourages referring such matters to the law courts for resolution which would otherwise take a considerably longer time.

Also, in the local cultures it takes people time to decide that they are aggrieved and want to complain. Therefore, the grievance procedures will give people up to the end of the next full agricultural season after surrendering their assets to set forth their case.

All attempts would be made to settle grievances. Those seeking redress and wishing to state grievances would do so by notifying their traditional leader or the appropriate municipal/district authority, who will in turn inform and consult with Electrogaz, REMA, MINITERE, homestead/household representatives and leaders and other records to determine a claims validity.

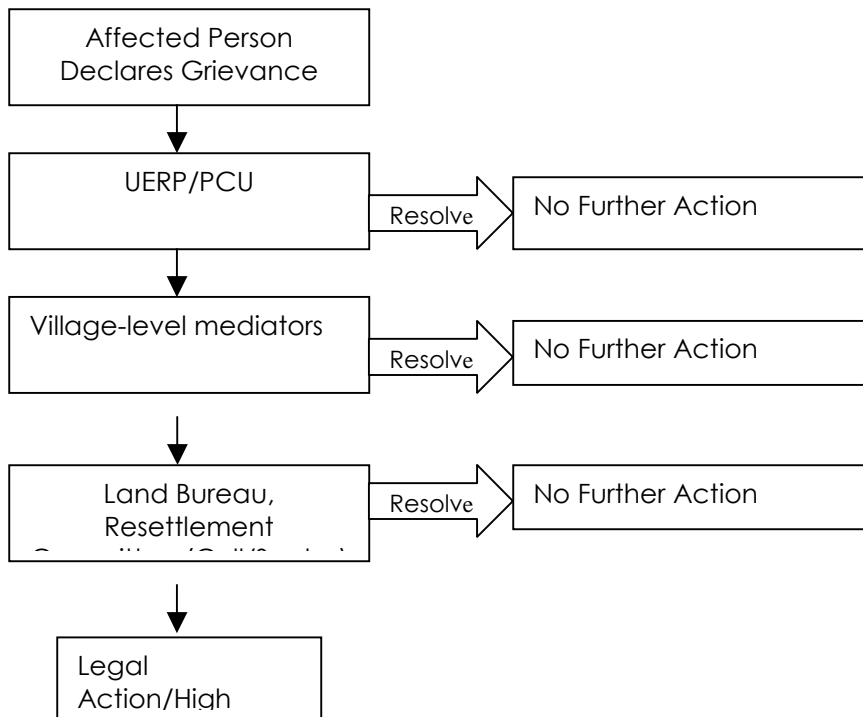
If valid, the traditional leader or the appropriate district authority will notify the complainant and s/he will be settled. If the complainants claim is rejected, then the matter will be brought before the law courts for settlement. The decision of the lowest court (i.e. Magistrate or high court) would be final and all such decisions must be reached within a full growing season after the complaint is lodged. This is designed to ensure a speedy and affordable adjudication.

If a complaint pattern emerges, Electrogaz, the district and regional administrations, with the local leaders will discuss possible remediation. The local leaders will be required to give advice concerning the need for revisions to procedures. Once they agree on necessary and appropriate changes, then a written description of the changed process will be made. Electrogaz, the district and regional administrations and the traditional leaders and representatives will be responsible for communicating any changes to future potential PAPs when the consultation process with them begins.

Table 13. Institutional Roles and Responsibilities in Grievance Redress

Institution	Role
Civil Court/High Court	Dispute resolution when all other forms of traditional and district resolution mechanisms fails.
District Land Bureau(Gasabo) and Resettlement Committees	Responsible for hearing appeals that have failed to be resolved at the sector and cell level by the existing land authorities.
UERP/PCU	Initial Institution where appeals from PAPs will be registered and recorded and resolution sought.
Village-level mediators	Lowest level of institution and first stop institution that will hear initial appeals from PAPs.

Figure 2. Grievance Redress Procedure



Information about all dispute and grievance procedures is to be widely disseminated, through consultation forums, Barazas and the Media. The PAPs committee secretary or nominated agent (in the absence of the secretary) will keep a written record of all disputes/grievances raised and dealt with during the resettlement and compensation process. These records will be monitored regularly by the PAPs Committee and by the independent Monitoring Team. This will be undertaken as part of the on-going monitoring and evaluation process.

8.0 Monitoring, Evaluation and Reporting.

Monitoring and evaluation of the RAP will be carried out during the whole process of land acquisition and compensation to ensure that the objectives are met and successful implementation of the RAP occur. The monitoring and evaluation will involve both the internal and external monitoring.

8.1 Internal Monitoring

It is the responsibility of the proponent to conduct regular internal monitoring of the resettlement performance of the operation. The monitoring should be a systematic evaluation of the activities of the operation in relation to the specified criteria of the condition of approval.

ELECTROGAZ and UERP/PCU will be responsible for implementing resettlement and compensation activities and it will therefore be their responsibility to undertake regular internal monitoring of the process.

The objective of internal monitoring and supervision will be:

- To verify that the valuation of assets lost or damaged, and the provision of compensation, resettlement and other rehabilitation entitlements, has been carried out in accordance with the resettlement policies provided by the Rwandan Government and the World Bank;
- To oversee that the RAP is implemented as designed and approved;
- To verify that funds for implementation of the RAP are provided by the Project authorities in a timely manner and in amounts sufficient for their purposes, and that such funds are used in accordance with the provisions of the RAP.

Internal monitoring will be carried out by the UERP/PCU and ELECTROGAZ, assisted by the Safeguards Advisor, to ensure that all of the responsible implementing agencies follow the schedule and comply with the principles of the RAP. For proper supervision, UERP/PCU will engage the safeguards advisor to undertake resettlement supervision, monitoring and evaluation for the Project.

The UERP/PCU will through the assistance of the safeguards advisor develop an internal monitoring framework to supervise the compensation activities. The UERP/PCU Project office will maintain the basic database of land acquisition, and compensation.

8.2 Internal monitoring Indicators

Internal monitoring indicators are outlined below and include but not limited to:

- Number and place of public consultation meetings held with PAPs and local authorities in preparation of, or during RAP implementation
- Number of PAPs effectively compensated and aggregated amount disbursed compensation paid (actual versus planned)
- Number of complaints:
 - 1) Total received; total justified; total non-justified. This will include the subject matter for all complaints; an explanation for non-justified complaints

- 2) Total resolved at imudugudu, cell, sector, District, UERP/ELECTROGAZ level. This should include the type of agreement reached;
 - 3) Total referred to the legal system, including a clarification on who initiated (UERP/ELECTROGAZ or PAP) the referral and the subject matter of the dispute.
- Compensations paid
 - 1) sums disbursed by UMUDUGUDU/District, and aggregated totals)
 - 2) Number of compensation paid before land taking/after land taking (including reasons why for the latter case)

8.3 Outcome Indicators for Monitoring and Evaluation

Outcome indicators include the delivery of compensation and other mitigation to avoid economic and physical displacement caused by the Project. A key objective of the RAP is that resettlement actions and mitigatory measures should lead to sustainable restoration or enhancement of affected people's pre-Project living standards and income levels. Outcome indicators measure whether compensation is paid and received, whether the affected populations were able to use compensation payment for investments that would give them sustained income.

Outcome indicators will include:

- ③ Restoration of agricultural production and overall income levels
- ③ Successfully negotiated land agreements
- ③ Satisfaction with reinstatement activities

Performance monitoring is an internal management function that will allow UERP which is responsible for resettlement to measure physical progress against milestones established in the RAP. Progress will be reported against a schedule of required actions and will be displayed through such devices as bar charts, Gantt charts, or MS Project tables). Examples of performance milestones will include:

Performance/evaluation indicators will include among others:

1. Total nature and level of all complaints received, resolved.
2. Completion of payment within, or after 2 months of estimated completion date indicated in the RAP implementation plan
3. Completion of demolition of structures in the ROW within 3 months after the notice to demolish
4. Revival of affected businesses within 4 month after the compensation payment
5. Submission of monitoring reports
6. Census, assets inventories, assessments, and socioeconomic studies completed
7. Public meetings held
8. Income restoration and development activities initiated;
9. Monitoring and evaluation reports submitted.

The Consultant recommends that an independent monitoring unit (IMU) be established to evaluate implementation of compensation and resettlement. The IMU shall be appointed to monitor the resettlement and compensation process and implementation of requirements to verify that compensation, resettlement and rehabilitation have been implemented in accordance with the

agreed RAP. The IMU will also be involved in the complaints and grievance procedures to ensure concerns raised by PAPs are addressed.

More specifically, the IMU will carry out the following:

- Review the results of the internal monitoring and review overall compliance with the RAP
- Assess whether relocation objectives have been met especially with regard to compensation levels, etc.
- Determine overall adequacy of entitlements to meet the objectives.

The Consultant recommends that UERP establishes an IMU that draws on personnel with resettlement and social development experience. The Consultant further recommends that relevant representatives from the World Bank form part of the IMU. The objective of this unit will also be to provide a forum for skills-sharing and to develop institutional capacity. It is important that the Unit is able to maintain a strong independent position and provide constructive feedback to the project to ensure the objectives are met.

8.4 Reporting

8.4.1 Completion Report

A completion report of the entire resettlement process for this project will be prepared and will include a hand over certificate which will ostensibly provide a verification of when the compensation and assistance were undertaken and to whom these services were provided as well as to indicate that indeed all the compensation has been delivered.

8.4.2 Data Base Creation

UERP/PCU will create a database which will include personal details of all the compensated PAPs including amounts of the compensations in relation to this project and this be part of the final report.

8.5 Arrangements for Monitoring and Implementation schedule

A schedule for implementation of resettlement and compensation activities is included in the table below. The schedule is tied to the implementation schedule for the Project. All compensation and resettlement for each component of the Project must be completed satisfactorily, income restoration measures in place and the construction area free of all encumbrances before commencement of civil works for that component.

The main objective in implementing this schedule is to ensure that compensation for land acquisition and lost assets is disbursed in time to enable affected households to restore livelihoods, and for affected public services to be fully reinstated prior to the commencement of the Project.

The construction works mainly includes such works as excavations, stripping of the earth, clearing of vegetation, construction of tower foundations, erection of towers, of the site etc. The table below illustrates the compensation implementation plan and responsible institutions that are expected to oversee the implementation.

Activity	Responsible Institution	Date of execution	Indicators	Cost
Compensation for the identified land to be acquired for construction of the mini Sub Stations, towers and ROW	UERP/PCU, ELECTROGAZ,	Before the construction begins	Availability of signed contracts and agreements by PAPs for compensation	94 574 341
Compensation for the crops available in the proposed project site	UERP/PCU, ELECTROGAZ	Before the construction	Availability of signed contracts and agreements by PAPs for compensation	120 955 482
Communication to PAPs on the due/target date for commencement of and completion of construction activities	UERP/PCU, ELECTROGAZ,	4 months before the construction begins. This has already been done.	PAPs	Minor and met by UERP/PCU
Communication on the dates of possession of PAPs land	UERP/PCU, ELECTROGAZ,	4 months before the construction begins. This has already been done.	Number of complaints from PAPs	Minor and met by UERP/PCU
Documentation of Holdings/Assets through the completion of a compensation dossier of PAPs in writing	ELECTROGAZ through UERP/PCU, and to be endorsed confirmed and witnessed by land authorities PAPs.	This is already on going	Availability of a database on PAPs by UERP/PCU	Minor and met by UERP/PCU

Communication and explanation of all the types of compensation to PAPs.	ELECTROGAZ, UERP/PCU, EA, Gasabo District Land Bureau	This is already on going	Minutes of communication on types of compensation.	Minor and met by UERP/PCU
Agreement on Compensation and Preparation of contracts which will be signed in presence of land authorities and PAPs.	ELECTROGAZ, UERP/PCU, Gasabo District Land Bureau	This is already on going	Availability of signed agreements and contracts.	Minor and met by UERP/PCU

9.0 Budget and Costs

The overall financial responsibility and authority will remain with the UERP/PCU which is the institution that will be primarily compensating all the PAPs in line with the findings of the RAP and within the timeline and implementation framework provided. The Gasabo District Land Bureau and Resettlement Committees at the sector and cell levels will ensure that the compensation is provided by UERP/PCU as required.

The sources of funds which is sufficient for the resettlement and compensation will be from UERP through the funds allocated by the World Bank and the flow will be from World Bank to MINECOFIN and then to ELECTROGAZ and finally to UERP. The table below outlines the budget relate to implementation of the RAP.

Table 14. Budget Estimates for the RAP

Item	Cost in RFW	Comment	Timing	Source of Funds	Disbursement Channel
Operations					
Salaries	Part of UERP budget	Management	2009	UERP	UERP
Office Administration	Part of UERP budget	Equipment, supplies and communication	2009	UERP	UERP
Transportation	Part of UERP budget	Inclusive of vehicle, POL and maintenance	2009	UERP	UERP
Consulting Services		RAP preparation including Socio-Economic surveys, consultation etc	2009	UERP	UERP
Compensation					
Compensation of land owners for agricultural land	94 574 341	Based on average price of land per hectare as determined by market survey multiplied by the number of hectares to be acquired from all the PAPs	Already happened in 2009	UERP	UERP
Compensation for lost crop and trees production from land owners and tenants	122 145 102	Based on prevailing market prices and value per tree variety and crops	Already happened in 2009	UERP	UERP
Compensation for dwellings and structures		Based on estimated replacement value per m2 multiplied by the total area of dwellings and structures multiplied by the number of all affected households	Already happened in 2009	UERP	UERP
Monitoring and Evaluation					
RAP Monitoring	Part of UERP budget	Quarterly and Periodic monitoring	2010 March	UERP	UERP
RAP Evaluation	Part of UERP budget	Final Evaluation	2010 August	UERP	UERP
Totals					
Sub Total	216 719 443,00				UERP
Contingency	21 671 944,30	10% of sub total			UERP
Total	238 391 387,30			UERP	UERP

Annex 1. Sample photographs of Project area



Photo 1. Typical Eucalyptus Trees in project area.



Photo 2. Banana plantation commonly grown in the project area



Photo 3. Existing roads where emphasis will be laid to use as routes to minimise relocation impacts

Annex 2. List of PAPs compensated for Land Acquired for Tower Installation

A. 30kV BIREMBO - DEUTSCHE WELLE LINE					
KINYINYA SECTOR					
MURAMA CELLAR					
N°	Owner	Village	Land size (m²)	TP	Observation
1	Mutsindashyaka Augustin	Binunga	25	17 500	Paid
2	Bureau du seteur Murama	Rusenyei	25	17 500	paid
3	Rutesi Patrice	Rusenyei	25	17 500	Paid
4	Mukamakuza Alphonsine	Rusenyei	25	17 500	Paid
5	Nyinawabera Ernestine	Rusenyei	25	17 500	Paid
6	Nzeyimana Marcel	Rusenyei	25	17 500	Paid
7	Eglise St. Pierre Claver	Rusenyei	25	157 500	paid
8	Mukakarangwa Francine	Taba	90	547 200	Paid
9	Gasana N. Aimable	Taba	25	228 000	Contract in progress
S/TOTAL			290	1 037 700	
B. 30kV BIREMBO - REMERA LINE					
KINYINYA SECTOR					
MURAMA CELLAR					
10	Rugambwa Gildas	Binunga	225	157 500	Paid
11	Murindahabi Stanislas	Binunga	225	157 500	Paid
12	Numukobwa Josephine	Binunga	25	152 000	Paid
13	Uwimana Providence	Binunga	225	157 500	Paid
14	Mariza Claudette	Binunga	200	1 216 000	Paid
15	Mukakarangwa Francine	Binunga	25	152 000	paid
16	Mutabazi Javan	Binunga	25	152 000	Contract in progress
17	Semigabo Rosalie	Binunga	225	163 125	Paid
18	Nzeyimana Marcellin	Binunga	200	1 216 000	Paid
19	Nzeyemina Nyakayiru Emile	Binunga	1 954	1 368 000	Contract in progress
20	Bimenyimana Jacques	Binunga	225	163 125	Paid
21	Habimana Théonesphore	Binunga	225	157 500	Paid
S/TOTAL			3 779	5 212 250	
GASHARU CELLAR					
22	Eglise adventiste	Gatare	225	157 500	paid
S/TOTAL			225	157 500	

REMERA SECTOR					
NYABISINDU CELLAR					
23	Ntawirinda Spésiose	Marengo 2	25	260 000	Paid
24	Nyagatare J. Bosco	Marengo 2	225	326 250	Paid
25	Mutambuka Thadée	Rugarama	225	326 250	Paid
26	Mutambuka Thadée	Rugarama	0	7 577 317	Paid (compensation for a house)
27	Nyirazuba Flavia	Rugarama	25	36 250	Paid
28	Nsabimana Delphin	Rugarama	25	36 250	Paid
29	MUTABAZI M, Willy	Rugarama	648	7 000 000	Paid
30	Iyamuremye Sylvère	Rugarama	25	36 250	Contract in progress
31	Kayisharaza Alphred	Kinunga	25	36 250	Paid
32	Hanyurwabake Juvénal	Kinunga	25	163 125	Paid
33	Ntaganda Radjabu	Kinunga	225	2 340 000	Paid
34	Kanyamanza Yusufu	Kinunga	225	236 250	Paid
35	Safari Vianney	Kinunga	25	36 250	Contract in progress
S/TOTAL			1 723	18 410 442	
NYAGATOVU CELLAR					
36	Nyiranturo Euphrasie	Buhoro	225	326 250	Paid
37	Simpunga Isaac	Bukinanyana	0	3 904 846	Paid (compensation for a house)
38	Bienvenue J.M Vianney	Bukinanyana	572	8 000 000	Paid
S/TOTAL			797	12 231 096	
KIMIRONKO SECTOR					
KIBAGABAGA CELLAR					
39	Mwizerwa Ignace	Buranga	424	20 352 000	Paid
40	Ecole Primaire "Petits Poussins"	Buranga	225	286 875	Paid
41	Nsengimana J. Luc	Buranga	225	286 875	Paid
42	Kanyemera Daniel	Buranga	225	286 875	Paid
43	Murenzi Emmanuel	Nyagatovu	0	3 904 846	Paid (compensation for a house)
44	Mukangira Betty	Nyagatovu	620	7 000 000	Paid
45	Ecole Primaire EAR	Karisimbi	120	1 843 200	Contract in progress
46	Peres Jesuites	Karisimbi	337	5 760 000	Contract in progress
S/TOTAL			2 176	39 720 671	

C. LIGNE 30kV BIREMBO - RUBUNGO					
KINYINYA SECTOR					
MURAMA CELLAR					
47	Mukantabana Josephine	Gatare	225	163 125	Paid
48	Ruberanziza François	Gatare	97,5	592 800	Paid
49	Ngirumpatse M. Viateur	Gatare	225	163 125	Paid
50	Eglise Adventiste	Gatare	225	163 125	Paid
S/TOTAL			772,5	1 082 175	
BUMBOGO SECTOR					
NYABIKENKE CELLAR					
51	Mukakarangwa Libérata	Birembo	225	56 250	Paid
52	Munyabahire Ferdinand	Masizi	225	56 250	Paid
53	Mukankaka Philomène	Masizi	225	56 250	Paid
54	Mukamusonera Chantal	Masizi	50	100 000	Paid
55	Mukakonseye Oliva	Masizi	16	32 000	Paid
56	Nzamura baho J. Bosco	Masizi	225	56 250	Paid
57	Uwimana Dieudonné	Masizi	225	540 000	paid
58	Vuningoma Samuel	Masizi	225	540 000	Paid
59	Uwihanganye Maurice	Masizi	19	45 600	Paid
60	Nyampinga Léoncie	Masizi	225	56 250	Paid
61	Nyampinga Léoncie	Masizi	225	1 368 000	Contract in progress
62	Mukampunga Félicité	Masizi	225	162 000	Paid
63	Gakuru Michel	Masizi	75	180 000	Paid
64	Mukandutiye Dativa	Masizi	225	56 250	Paid
S/TOTAL			2 410	3 305 100	
KINYAGA CELLAR					
65	Mukantagara Anne Marie	Zindiro	225	56 250	paid
66	Ruzibiza Euphrem	Zindiro	3 523	4 356 250	Paid
67	Nshimiyimana Emmanuel	Zindiro	2 500	7 500 000	paid
68	Ndibyariye Innocent	Zindiro	225	684 000	Paid
69	Habyarimana Janvier	Zindiro	0	2 250 189	Paid (compensation for a house)
70	Mpozayo Christophe	Zindiro	225	56 250	Paid
71	GOBOKA	Zindiro	225	1 368 000	Contract in progress
S/TOTAL			6 923	16 270 939	

MASORO CELLAR					
72	UAAC	Masoro	25	20 000	Paid
73	Kayitare Céléstin	Masoro	25	20 000	Paid
74	Mazimpaka Etienne	Masoro	225	1 300 000	Paid
75	Mukaruzamba Agnès	Masoro	50	180 000	Paid
76	Nzabakira Alexandre	Masoro	0	1 441 604	Paid (compensation for a house)
77	Byemayire Innocent	Masoro	25	20 000	Paid
78	HABIMPFURA Lambert	Masoro	25	20 000	Paid
79	Mutungirehe Donata	Mubuga	25	20 000	Paid
80	Habarugira Moise	Mubuga	1 020	4 000 000	Paid
81	Restoration Church	Mubuga	250	200 000	Contract in progress
S/TOTAL			1 670	7 221 604	
KIMIRONKO SECTOR					
BIBARE CELLAR					
82	Kigali Parents School	Ingenzi	225	331 875	Paid
83	Kaberuka	Ingenzi	225	331 875	Paid
84	Yambabariye J. D'arc	Imitali	225	331 875	Paid
S/TOTAL			675	995 625	
D. LIGNE 30kV BIREMBO - MUNINI (Free Zone)					
NDERA SECTOR					
MASORO CELLAR					
85	Mvunabandi Gilbert	Masoro	130	832 000	Paid
86	Nsengiyumva J.M.V	Masoro	95	608 000	Paid
87	Uwanyirigira Jean Bosco	Masoro	225	1 000	Paid
88	Gahongayire Jeanne	Masoro	225	1 000	Paid
89	Mwiza Ernest	Masoro	225	1 000	Paid
90	Kabagwira Beatrice	Masoro	225	1 000	Paid
91	Nyirazigama Valeriya	Masoro	225	180 000	Paid
92	Gatete Come	Masoro	225	180 000	Paid
93	Mukankusi Theodette	Masoro	225	1 000	Paid
S/TOTAL			1 800	9 000 000	

KIMIHURURA SECTOR					
RUGANDO CELLAR					
94	NISHIMIYIMANA Emmanuel	Gasasa	2500	7 500 000	Paid
S/TOTAL			2 500	7 500 000	
NYARUGUNGA SECTOR					
RWIMBOGO CELLAR					
95	NKUNDIBIZA Théogène	Rwinyange	0	1 083 018	Paid (compensation for a house)
S/TOTAL			0	1 083 018	
Grand total			25 741	122 145 102	
Total Paid			22 530	109 785 402	
Total not yet Paid			3 211	12 359 700	

Annex 3. List of PAPs compensated for Structures, Crops and Trees losses.

	Owners	Village	AMOUNT IN RWF	REMAKS
BUMBOGO SECTOR				
NGARA CELLAR				
1	MUKAKARANGWA Libérata	Birembo	117 216	Paid
2	MUKAMUSONERA Chantal	Birembo	204 660	Paid
3	BIKORIMANA Eric	Birembo	112 670	paid
4	HABIYAKARE Augustin	Birembo	344 200	paid
5	NYIRAKAMANA Xavéra	Birembo	26 400	Paid
6	MUSHASHI Esther	Birembo	136 072	Paid
7	MUKAKAREGA Vénancie	Birembo	69 900	Paid
8	MUKARUHIRWA Séraphine	Birembo	57 880	Paid
9	KAYIGI Jean de Dieu	Birembo	87 958	Paid
10	NSEKANABO J. Damascène	Birembo	65 120	Paid
S/TOTAL Cellule NGARA			1 222 076	
KINYAGA CELLAR				
11	NAYINZIRA J. Népomuscène	Zindiro	60 840	Paid
12	Unknown	Zindiro	28 300	Contract in progress
13	GOBOKA	Zindiro	363 940	Contract in progress
14	RUKUNDO Placide	Zindiro	9 600	Paid
15	NGENDAHIMANA Louis	Zindiro	415 340	Paid
16	KANKINDI Vivianne	Zindiro	484 970	Paid
17	KARINDA Ephrem	Zindiro	16 080	Paid
18	MUKANTAGARA Anne Marie	Zindiro	100 410	Paid
19	NTEZIRYAYO Innocent	Zindiro	45 250	Paid
20	NYAMURINDA Thaddée	Zindiro	17 942	Paid
21	HAKIZUWERA Evariste	Zindiro	63 600	Paid
22	KARASI Emmanuel	Zindiro	112 598	Paid
23	KAYIREBE Christine	Zindiro	197 208	Paid
24	NYIRABAGENZI Dativa	Zindiro	1 115 200	Paid
25	NDAHAYO Célestin	Zindiro	194 560	Paid
26	NDABAZIGIYE J. Bosco	Zindiro	348 512	Paid
27	MWUNGUZI Ananie	Zindiro	170 178	Paid
28	SIBOMANA André	Zindiro	398 480	Paid
29	KAMANA Alexis	Zindiro	135 228	Paid
30	MASUMBUKO Théogène	Zindiro	272 988	Paid
31	MUKASHARANGABO Cécile	Zindiro	82 680	Paid
32	NTAMBARA J. Damascène (Bis)	Zindiro	308 300	Paid
33	MBAGUTA Philippe	Zindiro	318 158	Paid
34	KIMENYI Védaste	Zindiro	354 190	Paid
35	Nsengiyumva Jean Claude	Zindiro	5 340	Contract in progress
36	KABAYIZA J. Bosco	Zindiro	872 498	Paid
37	Unkown	zindiro	24 000	Contract in progress
S/TOTAL KINYAGA CELLAR			6 516 390	

NYABIKENKE CELLAR				
38	MUGORUKEYE Domitilla	Kayenzi	448 164	Paid
39	BARUGWAMO Célestin	Kayenzi	19 230	Paid
40	TUYISENGE J. Claude	Kayenzi	74 578	Paid
41	MUKABAZIGA Gaudence	Kayenzi	25 080	Paid
42	HAKURINKA Prudencienne	Kayenzi	119 698	Paid
43	MUNYABAHIRE Ferdinand	Kayenzi	100 994	Paid
44	MUKAGATARE Cathérine	Kayenzi	26 826	Paid
45	ILYAMUKURU	Kayenzi	49 510	Paid
46	MUKAMURARA Alivéra	Kayenzi	244 028	Paid
47	NYAGATARE Innocent	Kayenzi	145 896	Paid
48	MUKANYIRIGIRA Violette	Kayenzi	309 372	Paid
49	CYABERA Espérance	Kayenzi	259 932	Paid
50	MUZIRANKONI Claudine	Kayenzi	208 854	Paid
51	NIYONZIMA J. Claude	Kayenzi	144 000	Paid
52	UWIRAGIYE Ephrem	Kayenzi	106 404	Paid
53	NZAMUTUMA Paul	Kayenzi	30 830	Paid
54	UWIHANGANYE Maurice (Bis)	Kayenzi	38 380	Paid
55	UWIHANGANYE Maurice	Kayenzi	468 214	Paid
56	UWIMANA Grace	Kayenzi	502 008	Paid
57	MUKAMPARIRWA Solange	Kayenzi	21 729	Paid
58	KANKINDI Hélène	Kayenzi	23 600	Paid
59	NYIRAKAMANA Xavéra	Kayenzi	359 752	Paid
60	MUKAKONSEYE Oliva	Kayenzi	58 600	Paid
61	SIKUBWABO André	Kayenzi	133 640	Paid
62	MUKAMPUNGA Félicité	Kayenzi	4 645	Paid
63	GAKURU Michel	Kayenzi	83 896	Paid
64	MUKAMIHIGO Donatilla	Kayenzi	85 556	Paid
65	NDACYAYISENGA Primien	Masizi	39 904	Paid
66	TUGANEYEZU Corneille	Masizi	370 330	Paid
67	MUKANKAKA Philomène	Masizi	450 654	Paid
68	REMEZO J. de. Dieu	Masizi	112 043	Paid
69	NYAMPINGA Léoncie	Masizi	92 266	Paid
70	GOBOKA	Masizi	56 250	Contract in progress
71	HITIMANA Eric	Masizi	37 410	Paid
72	MUSANGINEZA Vivianne	Masizi	130 108	Paid
73	RUBANGURA J. Baptiste	Masizi	183 364	Paid
74	RUKUNDO Théophile	Masizi	84 648	Paid
75	KANTENGWA Vestine	Masizi	377 762	Paid
76	MUKANKWAYA Cécile	Masizi	90 274	Paid

77	MUNYANEZA Pontien	Masizi	388 800	Paid
78	NKURIKIYINGABO Patric	Masizi	135 490	Paid
79	ABINGERI Solange	Masizi	321 770	Paid
80	NSHIMIYE	Masizi	16 200	Paid
81	MUKAMURINDA Patricie	Masizi	50 058	Paid
82	NTIBAGIRIRWA Védaste	Masizi	343 260	Paid
83	NYIRABAVAKURE Marceline	Masizi	70 980	Paid
84	NGENDAHIMANA Antoine	Masizi	45 188	Paid
85	NTAMUGABUMWE J. Pierre	Masizi	1 800	Contract in progress
86	MUHIGANA Ferdinand	Masizi	371 690	Paid
87	KATABARWA André	Masizi	560 260	Paid
88	NGERAGEZE Innocent	Masizi	48 600	Paid
89	MUKANTAGARA Jocelyne	Masizi	501 978	Paid
90	MUKAHIGIRO Julienne	Masizi	1 299 020	Paid
91	MUKANDUTIYE Dativa	Masizi	128 860	Paid
92	TUYISENGE Giselle	Masizi	110 604	Paid
93	BIHOYIKI Fidèle	Masizi	58 020	Paid
94	VUNINGOMA Samuel	Masizi	103 796	Paid
95	VUNINGOMA Samuel	Masizi	24 160	Paid
96	MUKANKUBANA Dativa	Masizi	13 200	Paid
97	MUKADANA Agenesta	Masizi	8 800	Paid
98	HARERIMANA Emmanuel	Masizi	24 998	Paid
99	KARARA Emmanuel	Masizi	76 026	Paid
100	UWIRAGIYE Ephrem	Masizi	6 090	Paid
101	HABAKURAMA Cyprien	Masizi	207 552	Paid
102	UWIMANA Diuedonné	Masizi	296 890	Paid
103	UWIMANA Diuedonné (Bis)	Masizi	11 900	Paid
104	NYIRAMONGI Angélique	Masizi	1 830 986	Paid
S/TOTAL NYABIKENKE CELLAR			13 175 405	
TOTAL BUMBOGO SECTOR			20 913 871	
SECTEUR NDERA				
MASORO CELLAR				
105	NEMEYE Joseph	Masoro	1 449 908	Paid
106	TUYIZERE Léonard	Masoro	31 450	Paid
107	KAYITARE Célestin	Masoro	1 780 800	Paid
108	NKUNDWANABAKE Donatien	Masoro	226 146	Proprietor not found
109	HABIMFURA Lambert	Masoro	240 260	Paid
110	GATETE Côme	Masoro	58 280	Paid
111	GIHANZA André	Masoro	203 172	Paid
112	MAZIMPAKA Etienne	Masoro	179 224	Paid
113	MASUMBUKO Théogène	Masoro	7 500	Paid

114	HAKIZIMANA Théogène	Masoro	2 025	Paid
115	GASASIRA Innocent	Masoro	34 640	Paid
116	BANKUNDIYE Clarisse	Masoro	112 014	Paid
117	MUNYANGEYO Simon	Masoro	223 580	Paid
118	MUKARUZAMBA Agnès	Masoro	415 798	Paid
119	INCONNU	Masoro	22 500	Contract in progress
120	GAHIMA Mélerce	Masoro	40 300	Paid
121	KAYITARE Célestin	Masoro	20 580	Paid
122	UAAC	Masoro	738 663	Paid
123	INCONNU	Masoro	19 700	Contract in progress
124	Restoration church	Masoro	402 000	Contract in progress
125	Kigali Parents school	Masoro	1 548 800	Contract in progress
126	Uwamahoro Honorine	Masoro	168 130	Paid
127	Rutiyomba Clement	Masoro	144 241	Paid
128	MVUNABANDI Gilbert	Masoro	2 584	Paid
129	Kaberuka	Masoro	869 400	Paid
130	KABAGWIRA Béatrice	Masoro	31 105	Paid
131	MUJAWIMANA Jacqueline	Mubuga	144 900	Paid
132	MUHIMPUNDU Annonciata	Mubuga	130 890	Paid
133	NYIRANGARUYE Marie	Mubuga	128 010	Paid
134	KANYARWANDA Habassi	Mubuga	454 148	Paid
135	GENDANEZA Diogène	Mubuga	76 782	Paid
136	TUYISENGE Claudine	Mubuga	29 520	Paid
137	MUKAMUGENZA Consolée	Mubuga	16 008	Paid
138	MUKANKWAYA Philomène	Mubuga	126 562	Paid
139	SHUMBUSHO J. d'Amour	Mubuga	1 037 010	Paid
140	MUTETERI Juliette	Mubuga	825 274	Paid
141	URIMUBENSHI Didace	Mubuga	14 250	Paid
142	NYIRISHEMA Berthe	Mubuga	19 800	Paid
143	NZAMUTUMA Paul	Mubuga	55 580	Contract in progress
144	RWASUBUTARE Daniel	Mubuga	202 424	Paid
145	UWITONZE Clémentine	Mubuga	82 074	Paid
146	NKUBITO Boniface	Mubuga	24 252	Paid
147	UWAJENEZA Monique	Mubuga	47 862	Paid
148	ABIGENGA Nicodème	Mubuga	46 580	Paid
149	NSENGIYUMVA Vianney	Mubuga	95 511	Paid
150	KAVUTSE Julienne	Mubuga	230 956	Paid
151	UMUTONIWASE Alia	Mubuga	176 560	Paid
152	MUDEREVU Gédéon	Mubuga	23 772	Paid
153	MPOZAYO Christophe	Mubuga	178 350	Paid
154	MUKAKANEZA Christine	Mubuga	106 678	Paid

155	UWIMANA Dyna	Mubuga	1 218 746	Paid
156	KANGABE Bibianne	Mubuga	52 590	Paid
157	MUKANYONGA Florence	Mubuga	171 442	Paid
158	NDAYAMBAJE Anastase	Mubuga	1 013 610	Paid
159	MUKABITEBERA Libérata	Mubuga	18 982	Paid
160	MUKAZERA Henriette	Mubuga	162 926	Paid
161	NAMBAJIMANA Marthe	Mubuga	26 314	Paid
162	MUKANKUSI Théodette	Mubuga	80 000	Paid
163	MUKANKUSI Théodette (Bis)	Mubuga	4	Paid
164	MUKABUDUWE Pélagie	Mubuga	78 672	Paid
165	KANYANDEKWE Patrick	Mubuga	392 650	Paid
166	KAMARABA Joselyne	Mubuga	220 740	Paid
167	MUKARUTAMU Gaudence	Mubuga	7 290	Paid
168	UMWIZA Françoise	Mubuga	203 926	Paid
169	MUKESHIMANA Rachère	Mubuga	65 648	Paid
170	HABYARIMANA Joseph	Mubuga	207 018	Paid
171	MUKAMUSONI Jeanne	Mubuga	108 054	Paid
172	NYIRAMANA Vénantie	Mubuga	3 980	Paid
173	NVUNABANDI Moise	Mubuga	22 930	Paid
174	RUDAHANGARWA Léopold	Mubuga	20 550	Paid
175	MUKARUBIBI Domitilla	Mubuga	85 032	Paid
176	FAIDA Immaculée	Mubuga	457 218	Paid
177	NKUSI Alphonse	Mubuga	12 900	Paid
178	RURONDO Jacques	Mubuga	120 534	Paid
179	NYIRABAJA Pétronilla	Mubuga	322 664	Paid
180	MUKAKAMANZI Annonciata	Mubuga	88 704	Paid
181	NYIRAHABIMANA Marie	Mubuga	162 374	Paid
182	MUTUNGIREHE Donata	Mubuga	408 500	Paid
183	NYIRARUSHYANA Lucie	Mubuga	934 580	Paid
184	MUKANKUSI Faïce	Mubuga	425 516	Paid
185	MUZIGANGABO Ildephonse	Mubuga	596 784	Paid
186	CYZA Emile	Mubuga	315 260	Paid
187	MUDENGE Diogène	Matwari	33 614	Paid
188	NYIRAZIGAMA Vereliya	Matwari	268 820	Paid
189	UWAMBAJIMANA Vivien	Matwari	38 600	Paid
190	GAHIRE Léonidas	Matwari	356 698	Paid
191	GASANA Laurent	Matwari	422 390	Paid
192	KARANGWA J. Claude	Matwari	51 858	Paid
193	MUKABARISA Aulérie	Matwari	1 057 600	Paid
194	KARARAMBUGA Innocent	Matwari	69 176	Paid
195	KANAKUZE Agnès	Matwari	8 026	Paid

196	SIMPUNGA Tassien	Matwari	121 230	Paid
197	NDAYAMBAJE Stéphanie	Matwari	317 800	Contract in progress
198	KARANGWA Vidivi	Matwari	129 088	Paid
199	BYEMAYIRE Innocent	Matwari	1 231 020	Paid
200	HAKIZIMANA Phénias	Matwari	220 650	Paid
201	MUKANDORI Espérance	Matwari	145 060	Paid
202	MUKESHIMANA Joselyne	Matwari	42 632	Paid
203	UWIMANA Marguerite	Matwari	21 220	Paid
204	MUKASONGA Félicité	Matwari	62 400	Paid
205	MUSABYEYEUZU Espérance	Matwari	124 770	Paid
206	IGIRUKWAYO Claver	Matwari	425 386	Paid
207	SEMUGABO Célestin	Matwari	74 664	Paid
208	MUKANDORI Espérance	Matwari	145 060	Paid
209	RIBAKARE Emmanuel	Matwari	189 124	Paid
210	BARIHUTA Damien	Matwari	651 491	Paid
211	BIKORIMANA Jonas	Matwari	74 160	Paid
212	AHIMANA Silidio	Matwari	95 420	Paid
213	NIBAGWIRE Laurence	Matwari	103 476	Paid
214	MUNYANGABE Théodomir	Matwari	2 520	Paid
215	Cellule MASORO	Matwari	1 158 417	Paid
216	MUKANKUBANA Peace	Matwari	153 600	Paid
217	HABARUGIRA Moise	Matwari	254 038	Paid
218	NYIRANTAGORAMA Jeanne	Matwari	593 000	Paid
219	UWANYIRIGIRA S. Jean Bosco	Matwari	427 000	Paid
S/TOTAL MASORO CELLAR			30 327 135	
TOTAL NDERA SECTOR			30 327 135	
REMERA & KIMIRONKO SECTORS				
REMERA SECTOR				
NYABISINDU CELLAR				
220	SHEFERI Faustin	Rugarama	1 200	Contract in progress
221	UWIMANA Agnès Marie	Rugarama	16 040	Contract in progress
222	NDAHIRO Dominique	Rugarama	7 140	Paid
223	KARAMBAYIRE Rose	Rugarama	5 340	Paid
224	MUKAMANA Domitilla	Rugarama	62 465	Paid
225	HABINSHUTI Epaphrodite	Rugarama	16 940	Paid
226	RUTAGENGWA Onesphore	Rugarama	33 500	Contract in progress
227	TWAHIRWA J. Bosco	Rugarama	1 800	Paid
228	MUHIRWA J. Claude	Rugarama	600	Paid
229	MUDENGE Diogène	Rugarama	39 840	Paid
230	NYIRAZUBA Flavia	Rugarama	138 850	Paid
231	EGLISE PENTECOTE REMERA	Rugarama	42 382	Paid

232	KAMANDA Charles	Rugarama	2 400	Paid
233	NTAWIRINDA Spéciose	Rugarama	89 360	Paid
234	NTAWIRINDA Spéciose (Bis)	Rugarama	91 910	Paid
235	KAGORORA	Rugarama	1 400	Paid
236	KWITONDA Justin	Rugarama	5 340	Paid
237	KARAMBA	Rugarama	1 200	Contract in progress
238	MISAGO Bapfakurera	Marembo 2	6 228	Paid
239	KAGENZA Sadiki	Marembo 2	491 220	Paid
240	KANKINDI Fatuma	Marembo 2	10 800	Paid
241	NYIRAMATAMA Hasina	Marembo 2	148 480	Paid
242	KANYAMANZA Yussufu	Marembo 2	96 835	Paid
243	MATABARO Mohamed	Marembo 2	66 900	Paid
244	MUSIRIKARI Jean	Marembo 2	134 262	Paid
245	NYAGATARE J. Bosco	Marembo 2	2 601 540	Paid
246	GATABAZI J. Damascène	Marembo 2	2 400	Contract in progress
247	BISHINGA Joseph	Kinunga	16 940	Paid
248	MUNYANKINDI Innocent	Kinunga	8 850	Paid
249	NSENGIMANA Marc	Kinunga	1 200	Paid
250	TESIRE Véronique	Kinunga	19 946	Paid
251	HANYURWABAKE Juvénal	Kinunga	39 220	Paid
252	MUKAKAGENZA	Kinunga	1 800	Paid
253	UWAMWEZI Aulérie	Kinunga	31 380	Contract in progress
S/TOTAL NYABISINDU CELLAR			4 235 708	
TOTAL REMERA SECTOR			4 235 708	
KIMIRONKO SECTOR				
NYAGATOVU CELLAR				
254	GAKWERERE	Buhoro	42 600	Paid
255	Unkown	Buhoro	24 450	Contract in progress
256	BISETSA Erickson	Buhoro	163 680	Contract in progress
257	NYIRANTURO Euphrasie	Buhoro	208 080	Paid
258	MUKAFURAHA Eline	Buhoro	17 030	Paid
259	UZAYISENGA Azarias	Buhoro	5 670	Paid
S/TOTAL NYAGATOVU CELLAR			461 510	
BIBARE CELLAR				
260	NSHIMIYIMANA Anastase	Ingenzi	12 776	Paid
261	MUGABO Jean	Ingenzi	84 914	Paid
262	MUNDANIKURE Faustin	Ingenzi	38 790	Paid
263	UMUHIRE Oliva	Ingenzi	1 324 950	Paid
264	MUGABO Jean Baptiste	Ingenzi	8 400	Paid
256	MUTAZIHANA Charles	Ingenzi	1 878 120	Contract in progress
257	KANDAMA Marthe	Ingenzi	42 720	Contract in progress

258	GASHUGI Innocent	Ingenzi	77 454	Paid
259	RUTAGARAMA Boniface	Ingenzi	3 600	Paid
260	BWICAZA Olivier	Ingenzi	13 500	Contract in progress
261	Cellule BIBARE	Ingenzi	52 680	Paid
262	NZAMUYE Gabriel	Ingenzi	40 700	Paid
263	KAYUMBA	Ingenzi	765 570	Contract in progress
264	NYINAWADATA Jeanne	Uwimitari	16 040	Paid
265	USABUWERA Martin	Uwimitari	1 200	Paid
266	NDAMAGE François	Uwimitari	80 820	Paid
267	KAVUBI Pierre	Uwimitari	900	Paid
S/TOTAL BIBARE CELLAR			4 443 134	
KIBAGABAGA CELLAR				
268	MUGABO	Nyirabwana	45 000	Contract in progress
269	KABARISA J.M.V.	Nyirabwana	78 200	Paid
270	KANTENGWA Dorothée	Nyirabwana	259 630	Paid
271	MUKANYIRIGIRA Dimitrie	Nyirabwana	130 338	Paid
273	NTAGENGERWA Augustin	Nyirabwana	820 430	Paid
274	SHABUKIMBI Muramvya	Nyirabwana	23 100	Paid
275	NYINAWAMANZI Béatha	Nyirabwana	217 400	Paid
276	RWAGASANA Thomas	Buranga	228 000	Paid
277	NSHIMIYIMANA J. Bosco	Buranga	10 000	Paid
278	NSENGIMANA J. Luc	Buranga	489 730	Paid
279	KANYEMERA Daniel	Buranga	449 576	Paid
280	NIYIVUGA Scholastique	Buranga	1 580 520	Paid
S/TOTAL NYIRABWANA CELLAR			4 331 924	
S/TOTAL KIMIRONKO SECTOR			9 236 568	
TOTAL REMERA & KIMIRONKO SECTORS			13 472 276	
KINYINYA SECTOR				
MURAMA CELLAR				
281	MUKAKAMEGERI Denise	Binunga	209 833	Paid
282	HARELIMANA Alexis	Binunga	869 880	Paid
283	MUKABAZIMYA Adélata	Binunga	501 344	Paid
284	RUGANINTWALI Vénérand	Binunga	484 100	Paid
285	HATEGEKIMANA Félix	Binunga	1 124 190	Paid
286	NSANZUMUGANWA Emmanuel	Binunga	1 327 410	Paid
287	MUJAWIMANA Margueritte	Binunga	247 320	Paid
288	UWIMANA Providence	Binunga	220 748	Paid
289	AYABAGABO Vincent	Binunga	20 400	Paid
300	KAMPIRE Vestine	Binunga	40 900	Paid
301	KAMANZI Jean Baptiste	Binunga	174 854	Paid
302	MUKARUGEMA Vélène	Binunga	576 360	Paid

303	MUKAMUGEMU Mariam	Binunga	498 312	Paid
304	MANIRAHU Philippe	Binunga	12 550	Paid
305	MUKAKARANGWA Pascasie	Binunga	236 544	Paid
306	RUBERANZIZA François	Binunga	242 030	Paid
307	CENTRE DE SANTE DE KINYINYA	Binunga	74	Paid
308	SEMIGABO Innocent	Binunga	1 069 056	Paid
309	SEMIGABO Rosalie	Binunga	163 125	Contract in progress
310	KAMENGE Alimasi	Binunga	52 600	Paid
311	NYAMPETA Marcel	Binunga	319 470	Paid
312	MUHAWENIMANA Scolastique	Binunga	64 662	Paid
313	KAGINA Pierre	Binunga	79 800	Paid
314	MUKABARISA Vestine	Binunga	12 390	Paid
315	NTAKIRUTIMANA Wellars	Binunga	161 212	Paid
316	BYUKUSENGE Leatitia	Binunga	14 058	Paid
317	NIRERE Tacienne	Binunga	264 226	Paid
318	MWISENEZA Eric	Binunga	172 846	Paid
319	GATONGA Vincent	Binunga	801 278	Paid
320	NTAKIYIMANA	Binunga	41 726	Paid
321	MUNYAKAZI Antoine	Binunga	35 000	Paid
322	MUKANDAMAGE Daphrose	Binunga	39 242	Paid
323	MUKAKAROLI Epiphanie	Binunga	22 680	Paid
324	MUKAMAZIMPAKA Anne Marie	Binunga	26 038	Paid
325	MUSABIMANA Marie	Binunga	62 916	Paid
326	HORIZON CONSTRUCTION	Binunga	19 200	Paid
327	MBANGUKIRA Alphonse	Binunga	144 400	Paid
328	UWIMANA Viateur	Binunga	19 200	Paid
329	NYINAWUMUNTU Jeannette	Binunga	66 000	Paid
330	MUKANKUSI Alivéra	Binunga	53 100	Paid
331	MUKAKARISA Vestine	Binunga	41 100	Paid
332	BERIMANA J. Népomuscène	Binunga	19 200	Paid
333	UWIMANA Aline	Binunga	25 200	Paid
334	SEKIVURA Abudallah	Binunga	71 400	Paid
335	NSHOGOZA J. Marie Vianney	Taba	223 150	Paid
336	NYIRAMANA Jaqueline	Taba	37 290	Paid
337	UWITONZE Marie Louise	Taba	66 300	Paid
338	MUNYANGABE J. Bosco	Taba	31 754	Paid
339	KAGAME Célestin	Taba	111 158	Paid
340	NZABAMWITA Jean Baptiste	Taba	77 550	Paid
341	UWAMAHORO Emmanuel	Taba	105 074	Paid
342	MUKANTABANA Josephine	Taba	221 700	Paid
343	BARAGONDOZA Jean Damascène	Taba	1 282 914	Paid
344	GATERA Vénuste	Taba	26 674	Paid
345	NYIRANSABIMANA Clarisse	Taba	203 330	Paid

346	RUGAMBWA Gildas	Taba	198 052	Paid
347	GAKOMBE J. Claude	Taba	32 950	Paid
348	MUKANDUTIYE Anne Marie	Taba	293	Paid
349	MURENZI Janvier	Taba	225 998	Paid
350	KAMBANDA J. Bosco	Taba	63 810	Paid
351	NYIRANEZA Happy	Taba	96 220	Paid
352	MUKARUGERO Espérance	Taba	185 090	Paid
353	NYIRAMANYENZI Déborah	Taba	7 500	Paid
354	MURINDAHABI Stanislas	Taba	400 737	Paid
355	MWISENEZA Séraphin	Taba	376 460	Paid
356	NYINAWUMUNTU Domina	Taba	97 450	Paid
357	NIYONZIMA Vénuste	Taba	3 720	Paid
358	NUMUKOBWA Josephine	Taba	162 110	Paid
359	NUMUKOBWA Josephine	Taba	2 700	Paid
360	NYIRAMISAGO Delphine	Taba	25 466	Paid
361	TWAGILIMANA Ndayambaje	Taba	213 178	Paid
362	MUKANKURANGA Zanuda	Taba	40 140	Paid
363	GAHIGANKWAVU Florent	Taba	34 760	Paid
364	NKUNDWA Donatien	Taba	297 716	Paid
365	KANTARAMA Elina	Taba	99 800	Paid
366	KANTENGWA Donata	Taba	274 138	Paid
367	RUKUNDO Alice	Taba	256 470	Paid
368	MUHIMPUNDU Immaculée	Taba	310 496	Paid
369	MWIZERWA Emile	Taba	409 610	Paid
370	UWANZIGA Julienne	Taba	155 722	Paid
371	HABUMUGISHA Sylvér	Taba	105 750	Paid
372	MUTABAZI Javan	Taba	336 536	Paid
373	GASANA N. Aimable	Taba	35 000	Contract in progress
374	TWIZEYIMANA Jean Pierre	Taba	131 880	Paid
375	KANIMBA Canisius	Taba	16 040	Paid
376	AKARIKUMUTIMA Cathérine	Taba	59 458	Paid
377	MUKAKARANGWA Francine	Taba	37 090	Paid
378	MARIZA Claudette	Taba	267 628	Paid
379	UWIMANA Gaudence	Taba	86 850	Paid
400	APAETA	Rusenyi	174 366	Paid
401	ARCHIDIOCESE DE KIGALI	Rusenyi	177 980	Paid
402	NSANZABANDI Théogène	Rusenyi	119 936	Paid
403	MBARUSHIMANA J.Népomuscène	Rusenyi	82 758	Paid
404	MAYINDO Martin	Rusenyi	210 714	Paid
405	NYINAWABERA Ernestine	Rusenyi	564 500	Paid
406	UWANYIRIGIRA Françoise	Rusenyi	464 504	Paid
407	RUTAGUNGIRA Etienne	Rusenyi	117 446	Paid
408	MUKARUYENZI Agnès	Rusenyi	605 006	Paid
409	RUTESI Patrice	Rusenyi	265 100	Paid

410	MUHORAKEYE Jeanne	Rusenyi	165 944	Paid
411	UMUJYAMBERE Olivier	Rusenyi	211 680	Paid
412	MUKAMITALI Marie Claire	Rusenyi	90 360	Paid
413	MUHAWENIMANA Eric	Rusenyi	37 930	Paid
414	HITIMANA Gaspard	Rusenyi	36 210	Paid
415	DUSABE Christine	Rusenyi	53 976	Paid
416	MUKAGATARE Victoire	Rusenyi	24 095	Paid
417	MUHOZA Béatrice	Rusenyi	600	Paid
418	MUSENGIMANA Anastasie	Rusenyi	109 220	Paid
419	MUKAMAKUZA Alphonsine	Rusenyi	14 650	Paid
420	NDAYAMBAJE Samuel	Rusenyi	101 480	Paid
421	MUKESHAYEZU Donatilla	Rusenyi	131 600	Paid
422	BIMENYIMANA Jacques	Rusenyi	366 000	Paid
423	MUKANKWIRA Petronille	Rusenyi	106 360	Paid
424	AKAGARI KA MURAMA	Rusenyi	32 000	Paid
425	NZEYIMANA Marcellin	Rusenyi	6 000	Paid
426	NTAWIHA Martin	Rusenyi	134 430	Paid
S/TOTAL MURAMA CELLAR			22 854 044	
GASHARU CELLAR				
427	UWAMAHOLO Emérence	Gatare	39 630	Paid
428	UMURERWA Léonie	Gatare	55 580	Paid
729	KARUGWIZA Judith	Gatare	1 098 638	Paid
430	EGLISE ADVENTISTE	Gatare	457 064	Paid
431	RUTAYISIRE Eugène	Gatare	1 407 000	Paid
432	MURAGIZI Benoît	Gatare	1 437 376	Paid
433	MUKANYIRIGIRA Marie	Gatare	191 560	Paid
434	MUKANKUSI Bernadette	Gatare	80 624	Paid
435	NGIRUMPATSE M Viateur	Gatare	1 407 000	Paid
436	MUKARUBUGA Verdianne	Gatare	253 690	Paid
S/TOTAL GASHARU CELLAR			6 428 162	
TOTAL KINYINYA SECTOR			29 282 206	
KMIHURURA SECTOR				
KIMIHURURA CELLAR				
437	UMUTONI olive	Urwego	17 530	Paid
438	MUSABYEYEZU Julienne	Urwego	280 045	Paid
439	KABAGWIRA Béatrice	Urwego	206 278	Paid
S/TOTAL KIMIHURURA CELLAR			503 853	
TOTAL KIMIHURURA SECTOR			503 853	
NYARUGUNGA SECTOR				
RWIMBOGO CELLAR				
	NKUNDIBIZA Théogène	Rwinyange	75 000	Paid
S/TOTAL RWIMBOGO CELLAR			75 000	
TOTAL NYARUGUNGA SECTOR			75 000	
Grand total to be Paid			94 574 341	
Total Paid			88 285 300	
Total not yet Paid			6 289 041	

Annex 4. Map of Project Distribution Route

