Republic of Uganda

Ministry of Energy and Mineral Development

Rural Electrification Agency

ENERGY FOR RURAL TRANSFORMATION PHASE II

Project Brief

For the proposed extension of Electricity Distribution Grid in the areas of:

- Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare (App. 50km of MV and 21km of LV).
- Amuru-Nwoya District Headquarters (Anaka) (App. 43km of MV and 9km of LV).
- Rubaare-Kakuru-Kyempene (Approx. 26km of MV and 10km of LV).

January, 2015
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<tr>
<td>ACSR</td>
<td>Aluminum Conductor Steel Reinforced</td>
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<td>CEMP</td>
<td>Contractor Environment Management Plan</td>
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<td>CSC</td>
<td>Construction Supervising Consultant</td>
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<td>DRC</td>
<td>Democratic Republic of Congo</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EMP</td>
<td>Environmental Management Plan</td>
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<td>ERA</td>
<td>Electricity Regulatory Authority</td>
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<td>Energy for Rural Transformation</td>
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<td>ESIA</td>
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<td>ESMF</td>
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<td>GRM</td>
<td>Grievance Redress Mechanism</td>
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<td>HIV/AIDS</td>
<td>Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome</td>
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<td>LCs</td>
<td>Local Councils I-V</td>
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<td>Ministry of Energy and Mineral development</td>
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<td>Ministry of Water and Environment</td>
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<td>Personal Protective Equipment</td>
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<td>ROW</td>
<td>Right of Way</td>
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<td>UEB</td>
<td>Uganda Electricity Board</td>
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### PROJECT BRIEF TEAM

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<td>01.</td>
<td>Nelson Omagor</td>
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<td></td>
<td>EIA Specialist/Team Leader</td>
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<td>02.</td>
<td>Jamil Kusiima</td>
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<td>03.</td>
<td>Moses Basoma</td>
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<td>Natural Resources Management Specialist</td>
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<td>04.</td>
<td>Ms Olivia Namutosi</td>
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<tr>
<td></td>
<td>Sociologist</td>
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EXECUTIVE SUMMARY

The Vision of Uganda as per its Vision 2040 aspirations is “A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years”. This is possible with availability of electricity as one of the key engines of a development process. However, there is still a challenge of grid coverage and the several areas especially in the rural settings have not been on the national grid for some time. Hence, REA’s plan to extend electricity distribution network to such areas is part of fulfilling GoU rural electrification policy that will supplement other government’s effort in achieving its Uganda Vision 2040.

Government of Uganda therefore intends to extend electricity grid coverage in the areas of Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare in Hoima district (Approximately 50km of MV and 21km of LV), Amuru-Nwoya District Headquarters (Anaka) (Approximately 43km of MV and 9km of LV), and to Rubaare-Kakukuru-Kyempene in Ntungamo district (Approximately 26km of MV and 10km of LV).

Scope of Activities
The proposed project will involve the construction of 33kV bare conductor overhead lines and a distribution system at selected load centres. The main project activities include survey of line and clearance of right of way, fixing of eucalyptus creosote-treated poles 2.3m into the ground, spacing them at 100m on dry terrestrial land, and 150-200m spacing in wetland areas using metallic drums and murrum in soggy areas, installation of the 100mm ACSR, 300 amps bare conductors overhead lines and installation of transformers, construction of storage facilities for the project materials and transport operations supporting the facilities above.

For all the activities involved, REA will endeavour to limit the power line to the road reserve as much as possible, and to engage local communities in the recruitment of the labour force. Majority of the locals will be employed for casual jobs like digging the holes and in the stringing process.

Decommissioning
It is anticipated that the distribution line facilities will be continuously maintained and repaired, and will be operated for a number of years. Because of their long useable life, the circumstances under which they might ultimately be decommissioned are not likely to be foreseen at this stage. Thus, only a general decommission approach has been considered in this Brief. The process of decommissioning will involve the deconstruction of distribution lines in a reverse order from their construction, using similar equipment and techniques. The conductors and shield wires will then be lowered to the ground, and all cables would be spooled and removed from the right-of-way for salvage. The poles will also be dismantled and removed from the right-of-way for salvage. Conductors shall either be re-used or taken to steel rolling mills for recycling. Salvaged poles shall either be re-used as fencing poles for farms and/or taken to a NEMA approved hazardous waste incineration and disposal facility for treatment and disposal.

Project Impacts and their Mitigation measures
The potential project impacts have been identified based on baseline investigations, professional judgement of the team as well as comments from the stakeholders consulted.

Relevant impact characteristics included whether the impact was:
  a. Adverse or beneficial;
b. Direct or indirect;
c. Short, medium, or long-term in duration; and permanent or temporary; and
d. Cumulative.

Consideration of the above gave a sense of the relative magnitude of each impact. The sensitivity of the receiving environment was determined based on the baseline data collected during the ESIA.

To provide a relative significance of different impacts, it was useful to assign numerical descriptors to the impact magnitude and receptor sensitivity for each potential impact. Each impact was assigned a numerical descriptor of 1, 2, 3, or 4, equivalent to very low, low, medium or high. The significance of impact was then indicated by the product of the two numerical descriptors, with significance being described as negligible, minor, moderate or major. This was a qualitative method designed to provide a broad ranking of the different impacts of the project.

Positive impacts

_Growth in agribusiness investments_
Availability of electricity in the rural areas will help to set up infrastructure that use power and which in turn will likely lead to improved lives. Such establishments include agro-processing facilities such as grinding mills, milk coolers and facilitate operations of fuel pumps etc.

_Improvement in security_
The project areas have some installments whose operations can be augmented especially prisons, police posts, as well as in the trading centers. The planned extension of power will provide security lighting in these establishments hence, improving the general safety in the areas. This is a major positive impact of long-term nature.

_Incentive to investment climate in the areas_
The project will be an incentive to enhance an investment climate in project areas. At the moment, most investments such as in hospitality industry (hotels etc.), and a host of others, are operated through power from generators to run their operations which in the end translates into higher costs of the services and goods they provide.

_Support to Telecommunications infrastructure operations_
Telecommunication booster stations in the region operate through diesel generators on 24hour basis which makes their services to be expensive (mobile phone access, community radios, internet cafes as well as phone charging). These power grid extensions will serve/support telecommunication infrastructure in the project areas thereby enhancing telecommunications service delivery in the area. In some of the trading and urban centers, there are attempts to put up radio stations operated on solar systems. The radios are an important tool in delivery of a range of information including mobilization programmes. However, due to lack of reliable electricity supply, the radio stations operate during daytime which poses limitations in a number of aspects.

_Reduced noise pollution and carbon emission_
Due to absence of power supply, all electricity operated businesses are run by power from generators of varying sizes and capacities, which lead too heavy pollution from carbon emission in the environment. The project will lead to reduced high noise and carbon emissions pollution from a number of power generators operated to run businesses in urban areas and their environs.
Improved delivery of social services
One of the targets recipients of the project is connection of health centers, schools and government installations to the power grids. The extension of electricity will therefore bring about improved delivery of services by sectors such as health especially vaccination, deliveries and surgical operations, education and general facilitation of trade activities. The operations of health facilities will be augmented by the planned extension of electricity to these areas. For instance, Anaka Hospital’s efficiency and effectiveness to deliver its services is allegedly to a large extent, attributed to lack of reliable electricity.

A stimulus to utility providers
It envisaged that, improvement and extension of the electricity distribution grid can be a stimulus to improve operations of other utility providers especially water supply. Currently most of the trading centers in the regions do not have piped water systems and it is therefore hoped that, better power supply can be a stimulus towards improvement of water supply system. The introduction of power would increase the opportunity to install motorized pumps to supply water to the smaller towns such as Olwiyo amongst others.

Creation of Short-Term Employment Opportunities
The proposed project will bring about creation of jobs during the construction phase (people in the project areas will provide labor force directly or indirectly) to the range of about 50-100 workers. This impact is positive and would affect the local retail business owners who would mainly benefit from secondary effects of increased incomes and spending power of construction workers. The project therefore, presents a very large positive impact which should be enhanced. Creation of job opportunities, during project development, construction activities will provide a number of employment opportunities for skilled, semi-skilled and unskilled labor. Recruitment of unskilled manual labor should give preference to local people wherever feasible.

Improved livelihoods
Lack of reliable electricity is a disincentive towards acquiring household items such as refrigerators and television sets. During consultations, women welcomed the project emphasizing that, it will enable families acquire fridges which will help planning and running of their homes. At the moment, families cannot stock food items due to lack of refrigerators and this has implications on the livelihoods. Erratic and unreliable power supply from generators coupled with lack of qualified personnel to maintain such equipment has on many occasions led to a number of refrigerators and television sets being damaged in the towns.

Incentives for small-scale enterprises
There are a number of women and youth amongst vulnerable groups operating some income generating activities such as hair and beauty salons, restaurants, ice cream selling as well as tailoring enterprises. However, due to lack of electricity, their operations are hampered and very costly and some have even abandoned the businesses due to lack of electricity for their operations. Costs of soft drinks as well as quantities sold depend mainly on the costs involved in cooling process. In that case, overhead costs are high for generator operations hence, the need for improvement in electricity supply is crucial for social transformation of social lives in the project areas.
**Improved social lives**

Electricity grid extension will be a boost to the social entertainment. Availability of electricity improves the choices for recreation and extends the time for recreation enabling recreation to take place at night after work. Furthermore, in the areas of the project, planned extension of electricity will support establishment of new entertainment facilities and enhance the old ones such as video halls community radios amongst others.

**Potential Negative Impacts**

**Potential Land Take**

The power distribution lines will be established along the entire/combined length of 119km in total of the three project areas and therefore, the creation of RoW will take up land, however this will be in extra-ordinary circumstances. Land uptake concerns will be minimal because the distribution lines do not require permanent way leaves. In addition, the power distribution lines will be restricted to the areas within the road reserves and in some cases; there will be compensation for the land and resources therein in areas where the land uptake will be unavoidable. A RAP study is being undertaken on this project alongside this ESIA to address issues of land uptake if any.

**Impacts on roadside woodlots**

All tall trees and scrub within a distance of 5m on either side of the center line of the distribution line (i.e. approximately 10m wide area) will be cut down to a height of not more than 2.5m above ground. All tall trees outside the RoW, but of such height as could fall within 2m of the conductors, shall also be felled. Practically, this process of vegetation clearing is to be done in a very selective manner so as to do minimal damage to the vegetation cover and crops. This is a medium negative impact shall be mitigated through compensation under the RAP that is being prepared alongside this ESIA.

**Occupational Safety and Health (OSH) for the workers**

Typically, areas of OSH concerns in the project will arise through handling and erection of poles; installation and stringing processes. World Bank EHS guidelines for Power Distribution and Transmission lines shall be followed. Workers likely to be exposed to an electrical hazard must use helmets, gloves, shields, flame resistant clothing, and any other protective equipment required to protect themselves from electric shock and burn.

As part of everyday work, electrical workers should always:

a. remove watches, rings, neck chains, or other current-conducting apparel;
b. wear electric-shock-resistant footwear;
c. wear hard hat or their equivalent;
d. wear safety glasses with side shields;
e. wear under and outer clothing that has flame-resistance properties;
f. Linemen shall wear their safety lines while working on the poles;
g. Wire hooks shall not be attached to linemen’s belts;
h. Safety straps should not be placed above the top cross arm when it is at the top of the pole;
i. Workers to have with them, a First Aid Kit on site;
j. The contractor shall prepare and implement a Health and Safety Management plan for the project;
k. All workers shall be routinely taken through safety drills; and
1. The contractors shall have and avail all workers emergency numbers of the Police (999) and police posts for nearby trading centers.

**HIV/AIDS concerns**

The notion that, there is likely to be influx of workers recruited for the construction of the power line is not anticipated in the project. The project work will be undertaken within three months at most and more so, the workers will be recruited from within the localities which equally rules out fears of relocation and instances of workers of staying outside their homes and engaging in extramarital sexual relationships which bring fears of HIV/AIDS transmissions. This implies, project works are expected to last for short periods hence minimising the chances of interactions between the communities and workers to establish relations that could trigger serious HIV/AIDS concerns. Nonetheless, workers shall be consciously sensitised on the dangers of illicit sex behaviours. The contractor shall also be required to provide condom to all workers.

**Visual Impacts and Landscape**

The lines will likely create visual intrusion in the countryside thereby compromising aesthetics in the areas. In some sections, the lines will traverse trading centers causing equally similar concerns. This is likely to be small-scale negative impact since the areas are not tourist destinations and more so, they are low voltage types which are relatively smaller as compared to high voltage cables that have such impacts.

**Vandalism of infrastructure**

Vandalism and theft of installations continues to be a major problem in the country where vandals tend to steal transformer oils as well as some of the distribution related equipment. This impact is expected to be a small negative impact and is to be mitigated through:

a. Sensitise the communities on the negative effects of stealing and vandalising electrical installation through radio programmes, messages through churches and mosques;

b. During construction the contractors should hire those workers who have been vetted by their local area leadership and with letters of introductions;

c. Project equipment shall be guarded during construction and all workers will be provided with identification tags to reduce intruders to working areas;

d. Identification tags to be provided to all the workers on the project sites and such identifications will remain a property of the contractor once an employee leaves employment;

e. Contractors to work closely with area local leaderships to help address security and safety at the construction sites;

f. Upon erection of the distribution lines, the contractor should place on them warning signs with writing “kabi danger hatari”.

**Concerns over transformer oil spillages**

Potential spillage from transformer oil can be a source of concern in the project areas. However, transformer oil is not normally stored onsite as such; it is transported to the sites for purposes of filling transformers that may have leaked off their oil during transportation, storage, or installation. Therefore, storage time of transformer oil onsite is to be limited to at least two days. It is suggested that, all transformers should be placed on wooden platforms laid in a high-density polythene bags spread with sawdust to soak away and contain any oil leakage.
Potential Contamination of Wetlands and Streams
The distribution lines will traverse a number of streams and wetlands and it is anticipated that, digging of holes for poles will generate loose soils that can pollute the waters. This is a negligible negative impact which is localized and of short-term nature. The excavated surfaces should be fully compacted and restored once the poles are erected.

Possible Impacts on PCRs
Though no PCRs were encountered during the study, a provision for Chance Finds has been proposed in this Project Brief (Appendix 3).

Noise from Construction Crew and Traffic
The noise levels in most parts of the proposed project areas are very low, typical of a village setting. In addition, the traffic volumes on the roads in the project areas are also low. Construction crew may not be that large and may not introduce many vehicles in the project area. The noise levels are not likely going increase substantially. This impact is temporal and small. Most of the construction activities will be carried out by manual labor with few trucks delivering labor and materials to the sites. The works will be implemented during daytime to minimize impacting on peoples sleep.

Impacts relating to power distribution lines maintenance
Once constructed there will be need for routine maintenance of the power lines in terms of tree trimming in the RoW. If this exercise is not well coordinated, it will generate impacts relating to interference with road traffic flow, electrocutions and potential conflicts with the communities on issues regarding crop loss. Resulting conflicts shall be handled in line with the project’s Grievance Redress Mechanism as detailed out in annex V. This is to be mitigated through coordinating with switch control units to ensure power supply is turned off before start of line maintenance. The public shall be protected against hazards of tree trimming along the roads by placing danger signs and signals.

   a. Before climbing a tree, the trimmer should look it over carefully to decide how best to climb it;
   b. The limbs should be carefully inspected to make sure that they could hold the trimmers weight;
   c. Before cutting down the tree, power supply should have been cut off to avoid electrocution;
   d. Where there is danger that the tree may strike and damage property, the trimmers should employ block and tackle system to control the direction of fall; and
   e. All tree trimmings and branches should be cleared off the road by the crew.
### Summary of the Key Impacts and their Level of Significance

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<td>1.</td>
<td>Incentive to investment climate in the project areas with possibilities of business in agro-processing units being set up such as milk cooling plants and mills.</td>
<td>Operation</td>
<td>Reversible</td>
<td>H</td>
<td>H</td>
<td>16 Major</td>
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<td>2.</td>
<td>Support to Telecommunication s infrastructure operation</td>
<td>Operation</td>
<td>Reversible</td>
<td>M</td>
<td>H</td>
<td>12 Major</td>
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<td>3.</td>
<td>Reduced noise pollution from generators in the trading centers</td>
<td>Operation</td>
<td>Reversible</td>
<td>L</td>
<td>M</td>
<td>6 Moderate</td>
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<td>4.</td>
<td>Improved security through better street lighting in the urban and trading centers areas</td>
<td>Operation</td>
<td>Reversible</td>
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<td>6 Moderate</td>
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<td>5.</td>
<td>A stimulus to utility providers to extend their services (water etc.) to urban and trading centers in the project areas.</td>
<td>Operation</td>
<td>Irreversible</td>
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<td>16 Major</td>
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<td>6.</td>
<td>Improved delivery of social services especially medical and education services in the project areas.</td>
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<td>Improved livelihoods through short-term employments and engagements in industries and agro-processing.</td>
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<td>Incentives for small-scale enterprises</td>
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<td>10.</td>
<td>Contribute to reduction of carbon emissions as some sections of the communities will connect electricity to their premises as opposed to continued usage of kerosene.</td>
<td>Operation</td>
<td>Reversible</td>
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</table>

**Negative Impacts**

| 11. | Loss of roadside vegetation through clearance of way leaves.          | Construction | Reversible | M | M | | | | | | 9 Moderate |
| 12. | Potential disruption of road side businesses especially near trading centers. | Construction | Reversible | L | L | | | | | | 4 Minor |
| 13. | Disruption of traffic flow during installation of distribution lines. | Construction | Reversible | VL | VL | | | | | | 1 Negligible |
| 14. | Soil erosion concerns through                                         | Construction | Reversible | L | L | | | | | | 4 Minor |
|-----|------------------------------------------------------------------------|---------------|----------------------|-------------------------|-----------------------|--------------------|
|     |                                                                         |               | Reversible Irreversible | H4 M3 L2 VL1           | H4 M3 L2 VL1         |                    |
| 1  | Digging of holes for poles.                                            |               |                      |                         |                       |                    |
| 1.5| Potential conflicts and other social ills arising from the camp sites.  | Construction  | Reversible           | L                       | L                     | 4 Minor            |
| 1  | HIV/AIDS concerns                                                      | Construction  | Irreversible         | VL                      | VL                    | 1 Negligible       |
| 1.7| Occupational Safety and Health (OSH) for the workers                   | Construction/Operation | Irreversible         | L                       | L                     | 4 Negligible       |
| 1  | Visual intrusion by the distribution lines along roads.                | Operation     | Reversible           | VL                      | VL                    | 1 Negligible       |
| 1  | Vandalism of infrastructure                                            | Construction  | Reversible           | VL                      | VL                    | 1 Negligible       |
| 2  | Pollution from transformer oil spillages                               | Operation     | Reversible           | VL                      | VL                    | 1 Negligible       |
| 2.1| Loss of habitats for wildlife especially road side trees.              | Construction  | Irreversible         | L                       | L                     | 4 Minor            |
| 2  | Noise from construction crew and Traffic                               | Construction  | Reversible           | VL                      | VL                    | 1 Negligible       |
| 2  | Potential risks of electrocution                                       | Operation     | Irreversible         | VL                      | VL                    | 1 Negligible       |
Environmental Monitoring Plan

Some of the key monitoring indicators of focus will include amongst others:
   a. Traffic control measures put in place during construction phase of the project;
   b. Number of trees cut and compensated for;
   c. Number of sensitization meetings held for the community through radio on aspects of the project etc;
   d. Waste management plan developed and being implemented;
   e. Involvement of women in the project activities which could include number of women employed in the project;
   f. Safety aspects on the project i.e. provision of PPEs for the workers; and
   g. HIV/AIDS sensitisation meetings held.

CONCLUSION

The Project Brief has assessed for the overall acceptability of environmental and social impacts likely to arise as a result of the construction and operation of electricity distribution lines in the project areas. The line routes suggested are the most preferable routes taking into consideration the environmental, socio-economic and engineering aspects of the project.

The project is likely to generate some environmental and social impacts both during construction and operation. During the construction phase the environmental impacts expected from the project include disturbance to fauna and flora, construction wastes disposal, traffic movement, increase in noise levels and social impacts. During the operation phase, the impacts will include social impacts of restricted activities within the ROW. An Environmental and Social Management Plan has been prepared which describes the implementation mechanism for the recommended mitigation measures during the construction and operation phases to verify overall project performance. The total costs for implementation of the Environmental and Social Management Plan for this project is Three Hundred and Forty Three Million (343,000,000) Uganda Shillings.

This Project Brief therefore recommends that the project should precede provided the suggested mitigations in the study are adhered to and a follow up of recommendations on management actions is made by REA.
1 INTRODUCTION

1.1 Overview

This Project Brief (PB) is based on the findings of the detailed survey that was conducted from 1st October, 2014 and 18th October 2014. This is in line with the terms of reference for conducting an environmental assessment for the proposed construction of 33kv Electricity Distribution Grid Extension Lines and Associated Low Voltage Networks for Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare (App. 50km of MV and 21km of LV), Amuru-Nwoya District Headquarters (Anaka) (App. 43km of MV and 9km of LV) and Rubaare-Kakukuru-Kyempene (Approx. 26km of MV and 10km of LV).

This project brief for the Environment Assessment, presents the findings of an assessment of the environmental and social implications of the proposed power distribution Lines project and the associated low voltage networks in Amuru, Hoima and Ntungamo districts. An Environmental screening during feasibility studies was conducted by the Rural Electricity Agency (REA) prior to this study from whose findings they concluded that a Project Brief would be adequate to mitigate the potential environmental impacts which will arise as a result of the implementation of this electrification project. This Project Brief therefore, is expected to inform the overall project planning and design process for the proposed development. In addition, this PB is further intended to provide information that will facilitate decision-making by the Executive Director of NEMA for approval of environmental aspects of the proposed project.

The Project Brief has been prepared to meet the requirements as spelt out in the ERT–Environment and Social Management Framework (ESMF), the National Environment Act Cap 153 and the National Environment (Impact Assessment) Regulations of 1988. The Environment and Social Impact Assessment was conducted using the following methodologies: Document Review where project documents and other relevant information; REA’s technical design drawings, previous environmental project briefs, district environmental action and development plans for the areas traversed by the planned distribution lines, relevant policies, laws and regulations plus, records of previous surveys, statistical and census information amongst others were reviewed. The team also carried out site visits with an aim of identifying key environmental and social issues on-sites and comprised: Public consultations with relevant stakeholders like district officials (District Environmental Officers, District Natural Resource Officers, Local Council leaders, etc.), and local people were carried out to identify issues of concern, and to align the project as much as possible with local electricity supply priorities. Based on these main methods, the significance of social and environmental impacts was established based on the comparison with the baseline situations in the project areas and along the routes.

1.2 Background

The Government of Uganda has received financing from the World Bank towards the cost of the Energy for Rural transformation Project Phase II under Additional Financing project restructuring and has asked for Consultancy Services to undertake an Environmental Impact Assessment for the proposed 33kV Distribution lines and associated Low Voltage networks (Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare (App. 50km of MV and 21km of LV), Amuru-Nwoya District Headquarters (Anaka) (App. 43km of MV and 9km of LV) and Rubaare-Kakukuru-Kyempene (Approx. 26km of MV and 10km of LV)). The project areas are located in Northern Uganda-Amuru district, Mid-western Uganda-Hoima district and Western Uganda-Ntugamo district.
This report therefore is the Project Brief for the Environmental Assessment (EA) for the proposed construction of the Power Distribution Line and associated low Voltage Networks in selected Trading Centers (TC) and Rural Growth Centres (RGC) in Amuru, Hoima and Ntungamo districts. In addition to this EA, a Resettlement Action Plan (RAP) has also been commissioned as a supplement to this Project Brief in parallel. Most of the distribution lines are expected to be constructed mainly along the respective road reserves. Where the road reserve has not been defined and acquired, the lines will still follow as closely as possible the existing road/track alignments for the respective distribution and low voltage networks. This will minimize the possibility of land take and subsequent relocation/displacement of people. Due to the measures taken in the route design, it is expected that there will be no physical displacement of persons (PAP) under this project.

1.3 Rural Electrification Programme

As stated, rural electrification is one of the main pillars of the power sector reform strategy and the program. Much of Uganda’s rural population remains isolated and has not yet received or seen the benefits of liberalization of the economy. This is partly due to inadequate physical infrastructure and therefore, lack of integration with national, regional, and international markets. In order to achieve rural transformation in the country, it is necessary to develop those sectors that will add value where it is needed.

The Vision of Uganda as per its Vision 2040 aspirations is “A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years” which is possible with availability of electricity as one of the key engines of a development process. However, there is still a challenge of grid coverage and the proposed project areas have not been on been on the national grid for some time. Hence, REA’s plan to extend electricity distribution network to these areas is part of fulfilling GoU electricity policy.

Government of Uganda intends to extend electricity grid coverage in the areas of Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare in Hoima district (Approximately 50km of MV and 21km of LV), Amuru- Anaka-Nwoya District Headquarters (Approximately 43km of MV and 9km of LV), and to Rubaare-Kakukuru-Kyempene in Ntungamo district (Approximately 26km of MV and 10km of LV) as part of rural electrification program.

1.4 Summary Project Information

<table>
<thead>
<tr>
<th>S/NO</th>
<th>ITEMS</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Proponent:</td>
<td>Rural Electrification Agency –REA</td>
</tr>
<tr>
<td>2</td>
<td>Project Name</td>
<td>Electricity Distribution Grid in the areas of:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare (App. 50km of MV and 21km of LV).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Amuru-Nwoya District Headquarters (Anaka) (App. 43km of MV and 9km of LV).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rubaare-Kakukuru-Kyempene (Approx. 26km of MV and 10km of LV)</td>
</tr>
<tr>
<td>3</td>
<td>Location</td>
<td>Ntungamo district, Hoima District, Nwoya district and Amuru district</td>
</tr>
</tbody>
</table>
2 DESCRIPTION OF THE PROJECT

2.1 Location

The details of the proposed low voltage electricity distribution lines are as follows:

a. Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare in Hoima district (Approximately 50km of MV and 21km of LV) in the areas of Hoima as indicated in the figure below.

Figure 1: Map showing Kiziranfumbi-Kidoma-Kikoob-Kyapoloni areas
b. Amuru-Anaka-Nwoya District Headquarters (Approximately 43km of MV and 9km of LV) in the areas of Nwoya and Gulu as indicated in the figure below;

![AMURU-ANAKA-NWOYA PROJECT AREA](image)

Figure 2: Map showing the project area of Amuru-Nwoya (Anaka)
c. Rubaare-Kakukuru-Kyempene in Ntungamo district as indicated in the figure below (Approximately 26km of MV and 10km of LV).

Figure 3: The distribution line route in the areas of Rubare-Kakukuru-Kyempene in Ntungamo
2.2 Project Categorization

From the project scope of works, the activities will be small scale in nature and the distribution lines will be largely restricted to the existing road reserves which give overall project impact to be minimal. There is no permanent land take through acquisition of RoWs and does not trigger any relocation of facilities or resettlement concerns. However, in some sections of the RoW, the distribution lines cross wetlands for short distances. The project impacts will be restricted to pole foundations which are also a short-term impact. In view of these, the magnitude of the anticipated project negative impacts will be considerably low, and of short term nature hence, preparation of a detailed Project Brief suffices to address anticipated negative environmental and social impacts of this project, and the project has been accordingly assigned EA Category “B”.

2.3 Scope of Activities

The proposed project involves the construction of 33kV distribution lines and the associated low voltage networks covering a total of 159km (119km of MV and 140km of LV) in the districts of Hoima, Ntungamo, and Nwoya districts. The details of the projects are summarised in section 2.1 above. The design, construction, operation and maintenance of the distribution lines will entail numerous activities as outlined below:

2.3.1 Project description

The proposed construction of the 33kV distribution lines and the associated low voltage networks at different stages of construction is associated with:

- Clearing of right-of-way as necessary along the proposed route;
- Installation of line structures, accessories and conductors;
- Erection of poles for the 33 kV Distribution Lines and Low voltage network; and
- Possible construction of storage facilities for the project materials.

2.3.2 Design Stage

This involved the survey, in detail, of the proposed power line so as to establish the centre line. Subsequently, a 10m corridor will be cleared, with the centre line as guide, for the entire route. The clearance will include cutting down trees and trimming all vegetation inside the corridor. In addition, all trees in the falling distance of the poles will be cut down or trimmed accordingly. Pole location was done and the appropriate line drawings produced.

2.3.3 Construction Stage

The construction shall be carried out by a contractor and where necessary assisted by subcontractors. The human resource shall consist of 20 skilled personnel. The main contractor shall arrange for equipment and materials storage area preferably in the project areas. No workers’ camps shall be established since most of the work force especially casual workers will be hired from the respective project areas and shall be staying in the project areas and the skilled workers who may not be from the project areas are expected to reside in rented accommodation.

2.3.4 Materials and Specifications for construction

The 33 kV distribution lines will be constructed using 12m high wooden poles, creosote treated, with average spacing of 100m. The foundation for the wooden poles will consist of 0.35 m diameter and 2.0 m depth. In wetland areas, the pole foundations will be compacted using gravel material ferried as a backfill. Steel wire (7/4.00) stay sets will be installed at angels, T-
off and terminal structures and anchored by a stay block buried 2.0m depth. The stay blocks will consist of a 1m long creosote treated woodblock or 0.3m x 0.3m x 0.3m concrete block. H-type section poles erected 2m from each other will be installed every 1.5km together with four stay sets installed along the line corridor. At heavy angles, the stay wire will be installed at 45\(^\circ\) angles from the pole.

For the low Voltage (LV) at selected centres, the pole height will be 9m with average span of 50m. The foundation for the LV pole consists of 0.2m diameter and 1.6 m depth. Steel wire (7/2.64) stay sets will be installed at angles, T-off and terminal structures and anchored by a stay block buried 1.6m depth. The stay block will consist of 1m long creosote treated woodblock or 0.3m x 0.3m x 0.3m concrete block. Some materials such as wooden poles will be obtained locally.

During construction, the minimum distance allowed from the high voltage and low voltage lines from houses will be 30m and to the road edge will vary depending on areas crossed. Other materials required for the project include: pole line hardware, insulators, conductor hardware, and transformers with all the accessories.

2.3.5 Pole hole Digging

Holes to receive wooden poles will be dug to depths between 1.5-2m. Most of the excavation works will be done manually. Pneumatic hammers will only be used where hard rock will be encountered. However, in waterlogged areas and at small river crossings, bucket excavators will be used. The excavations are localized operations covering utmost, 2-3m\(^2\) and is a short-term activity.

2.3.6 Pole Framing, Erection and Installation of Stay wires

Wooden poles will be drilled and hardware installed and the erection of poles will be done manually. The poles will be plumbed using ropes attached to their tops and insulator support steelworks fixed. Steel wire stay sets will be installed at angles, T-off and terminal structures will be anchored by a stay block. Conductor configurations using either line post insulators or suspension insulators will be installed. The distribution system will be energized at 33 kV, and is designed as a three wire, grounded wire system, with earth return. The single-phase distribution system will use single wire earth return (SWER) design and construction, tapping one phase off the main line. The poles will be treated wood, probably imported, and of the eucalyptus variety. The poles usually will be 35 feet tall for tangent structures, with 30 feet above ground and five feet below, and an average of 100 to 120 meters apart on the line segments where “Rabbit” conductor is employed and 100 to 105 meters apart for those line segments where “Dog” conduct is employed. Forty (40) foot poles will be used where slight angles are required in line construction while 45-foot poles will be used at vertical corners. Thirty (30) foot poles will be used for all secondary lift poles. Eight foot galvanized steel cross-arms with cross-arm braces and polymer pin-type insulators will be used on tangent structures.

2.3.7 Conductor

The majority of the lines will be built with 100mm\(^2\) Aluminum Conductor Steel Reinforced (ACSR) conductors, with a rated current carrying capacity of 300 amps. Some smaller lines and minor taps will be with 50mm\(^2\) conductor, with a rated capacity of 200 amps. Stringing will be done using conventional methods and thereafter, between support structures, the wires will be pulled and tensioned on the guyed structures using pull lifts.
2.3.8 Transformers

At each load centre, a sub-station of appropriate capacity say 25KVA, 50KVA and or 100KVA shall be established to distribute power to the local consumers. Each sub-station consists of a transformer which will step down the voltage from 33kv to 415V 3phase or 240 single phase. Most of the consumers will require a single phase supply although some consumers presently running maize grinding mills may require the 3 phase supply.

The transformers will be mounted on poles depending on the size. 25KVA will be mounted on a single pole while the 50KVA and 100KVA will be mounted on an H-pole. This consists of two poles with the transformer mounted on a steel platform between the two poles.

The transformers are made of a steel tank with copper coils immersed in mineral oil in the tank. Possible impacts are oil leakage, transformer burning due to overloads, possible vandalization to stealing the oil.

2.3.9 Line hardware

The framing of the structures and the specification of the actual hardware (bolts, insulators, etc.) will follow the REA specifications. These specifications have proven to be not only adequate but the economic use of materials for rural electric systems in all cases in which they have been employed. Moreover, these same structures have been used in rural electric cooperatives in the United States for more than 65 years with remarkable durability and have proven to be safe both for consumers as well as utility personnel assigned to construct and maintain them.

2.3.10 Service drops

The residential service drops will be between 15 and 30m in length with a maximum length of 40 meters, and will mostly be of 16mm² copper duplex (#6 AWG). All kWh meters will be socket-based type to help prevent meter tampering. Service drops to larger, industrial type customers will use larger conductors, such as 50mm² or 25mm², as needed, but will always be of covered multiplex type conductors.

2.3.11 Post Construction Clean up

Excess and waste material shall be removed from the right of way and disposed of two designated areas. All campsites will be demolished and removed after construction works.

2.3.12 Operation and Maintenance phase

The operation of the 33kV line is going to be fully automated. The system will be equipped with several devices such as auto reclosers to turn off power when a fault occurs on the line like in a rainy storm, tree branches falling on the line or whenever a certain pole collapses. The auto reclosers therefore protect the line from damage and make it safer to the users. The transformers are also equipped with surge arresters and fused isolators to protect them from voltage surges that can occur during lightning of switching in the system.

Maintenance of the line will be done routinely every year or as deemed necessary by the system operator. The activities will include line clearance along the Right of Way; repair damaged structures, conductors and cracked or broken insulators. The maintenance will also include selective tree trimming depending on their growth rate and weeding around poles for a radius of 1 meter to protect them from bush fires. Emergency maintenance will also be carried out including technical breakdown done whenever there is a fault on the line or after severe wind/lighting storm. This will be done to replace damaged poles and to determine if conductors, insulators or poles have been damaged.
2.3.13 Decommissioning phase

It is anticipated that the distribution line facilities will be continuously maintained and repaired, and will be operated for a number of years. Because of their long useable life the circumstances under which, they might ultimately be decommissioned are not likely to be foreseen at this stage. Thus, only a general decommission approach has been considered in this Brief.

The process of decommissioning will involve the deconstruction of distribution lines in a reverse order from their construction, using similar equipment and techniques. The conductors and shield wires will then be lowered to the ground, and all cables would be spooled and removed from the right-of-way for salvage. Conductors shall either be re-used or taken to steel rolling mills for recycling. Salvaged poles shall either be re-used as fencing poles and/or taken to a NEMA approved hazardous waste incineration and disposal facility for incineration and disposal.

2.3.14 Disclosure after ESIA

Once the study is concluded, the developer (REA) will submit ten (10) copies of the Project Brief to NEMA for review and approval. Once submitted to NEMA, the Project Brief becomes a public document and may be inspected at any reasonable time by any person. Within two (2) weeks from date of receipt of the Project Brief, NEMA is mandated, if it finds it necessary; to publicize receipt of the Project Brief, identify the concerned region and stakeholders, the places for inspection of the Project Briefs, and makes copies or summaries of the reports available for public inspection. Further, this PB will be disclosed by both REA and the World Bank.
3 PROJECT ALTERNATIVES

The project alternatives suggested in the study focused on modalities of installing the distribution lines in terms of underground and over-head considerations not whether the project should be implemented or not.

3.1 Option 1: Underground Electric Distribution Lines

In most residential areas, low-voltage distribution lines are sometimes placed underground. While this option may be thought to reduce aesthetic and other impacts, it has its own challenges as it is prone to accidental cuts through cultivation and construction works.

The distance to be covered by the distribution lines in each project area is extensively long enough to physically limit underground line construction due to the associated cumulative energy losses and excavation challenges such as may be encountered in wetland and hilly areas amongst others.

Underground distribution line construction will also present the following disadvantages:

a. An increase in soil disturbance;
b. A complete removal of small trees and brush along the ROW; and
c. Increased construction and repair costs; and

Because of these challenges, this option was discontinued from further analysis for the project.

3.2 Option 2: Overhead Distribution Lines

This project brief suggests that overhead distribution lines be constructed because of the following:

a. they will be less disruptive to their surroundings;
b. the lines will be installed along existing roadsides and over fields; and

c. the life span of overhead distribution lines is higher than the underground distribution lines.

Generally, overhead cables are being seen as the lowest cost solution for reliable delivery of power and therefore, this Project Brief adopted the Option of Overhead Distribution lines as the most feasible in the implementation of the Project.

3.3 Option 3: Do Nothing

This would involve leaving out completely the implementation of the project in order to avoid any negative impacts on the environment. This Option will ensure that the social and general environmental settings in the areas where the distribution line would pass would be unaffected. However, the long-term macro-economic development plans and the regional grid interconnectivity benefits would be missed altogether. The target areas would remain without power and hence failure to achieve the long term rural electrification policies and plans of GoU.

This Option is therefore, inconsistent with the envisaged long-term development objectives of Uganda in a number of dimensions and was also dropped from further consideration in the study.
4 STUDY METHODOLOGY

The Project Brief has been prepared to meet the requirements as spelt out in the ERT–Environment and Social Management Framework (ESMF). It has also been prepared in accordance with Regulation 5(1) of the National Environment (Impact Assessment) Regulations of 1988 in order to meet the requirements under the National Environment Act Cap 153. The objective of this Project Brief is to identify, assess and mitigate significant environmental and social impacts resulting from the construction and operation of the proposed 33kv Distribution Lines and the associated low voltage networks in the project areas. This Project Brief is designed to inform project design and implementation in a manner that will minimize potential adverse environmental and social impacts. To achieve this, the study team used the following methodologies;

4.1 Document Review

Review of project documents and other relevant information; REA’s technical design drawings, previous environmental project briefs, district environmental action and development plans for the areas traversed by the planned distribution lines, relevant policies, laws and regulations plus, records of previous surveys, statistical and census information amongst others.

4.2 Site visits

These were carried out to identify key environmental and social issues on-sites and comprised:

a. Reconnaissance trips along/on the sites, and the main parts of the proposed distribution networks and local villages and businesses in such areas were undertaken with the objective of inter-phasing with the stakeholders and gaining site information in terms of biodiversity issues (forests, wetlands areas traversed by the project);

b. Socio-economic data was documented and it covered social and economic dimensions (demographic, economic activities, poverty issues etc.). Socio-economic aspects focused on soliciting specific socio-economic views from the local authorities and affected communities regarding land use and tenure, population and settlement patterns along the proposed distribution lines and at the proposed distribution networks, cultural aspects, existing infrastructure;

- Physical geographical aspects: landforms, climatic conditions etc.;
- Ecological aspects: the current status of flora and fauna of the area, and ecosystem interactions; and
- Public consultations with relevant stakeholders like district officials (District Environmental Officers, District Natural Resource Officers, Local Council leaders, etc.), and local people were carried out to identify issues of concern, and to align the project as much as possible with local electricity supply priorities. Based on these main methods, the significance of social and environmental impacts was established based on the comparison with the baseline situations in the project areas and along the routes.

4.3 Public Consultation and Stakeholder Concerns

Stakeholder consultations were conducted with the following specific objectives:-

a. Generating a good understanding of the project at grassroots level and for all stakeholders in general;

b. Understand local expectations throughout the project cycle;
c. Understanding and characterizing the potential environmental, socio-economic and health impacts of the project;

d. Developing effective mitigation measures and management plans;

e. Optimizing local benefits that can be delivered through the project; and

f. Enabling affected communities to provide views hence participating in the formulation and refinement of the project design.

All issues and concerns that were raised during the consultative meetings have been included in this project brief and the specific minutes of the meetings are attached in Appendix II.
Key issues raised during the consultations are summarized in the table below;

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Designation/ Title</th>
<th>Issues</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nyangoma Joselyn</td>
<td>DNRO/SEO- Hoima</td>
<td>The proposed rural electrification project should consider the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Homes to be affected by the project</td>
<td>A RAP is being prepared for the project, all compensation issues shall be handled by the RAP team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sensitization of the community before project implementation</td>
<td>Contractor’s workers shall be sensitized on how to relate with communities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Compensation of the affected persons</td>
<td>Contractor shall be encouraged to recruit from within the communities where works are being conducted.</td>
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<tr>
<td></td>
<td></td>
<td>• At the substations; Landownership, noise and pollution due to oils</td>
<td>Camps shall be avoided where necessary</td>
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<td></td>
<td></td>
<td>• The established camps; Social issues like marrying off young girls, divorce and diseases need to well planned for.</td>
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</tr>
<tr>
<td>Nsita Gertrude</td>
<td>Environment Officer- Hoima</td>
<td>• Digging of holes for pole placements should be refilled and not left empty to avoid injury</td>
<td>Contractor shall ensure proper compaction and restoration of poles holes after erection of poles.</td>
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<tr>
<td></td>
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<td>• Avoid cutting community trees without compensation as Hydromax power project did</td>
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<tr>
<td>Nyangoma Alice</td>
<td>Resident Majengo TC</td>
<td>• When power gets to the area how will it be distributed? Will it be distributed like the one in Buseruka?</td>
<td>UMEME shall be responsible for</td>
</tr>
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<td></td>
<td></td>
<td>• If power passes through your land are compensated or not?</td>
<td>RAP has been prepared</td>
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<td>• During the oil refinery project they were poorly compensated. How will they be appropriately compensated?</td>
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<tr>
<td>Nyampura Mary</td>
<td>Resident Majengo TC</td>
<td>• Does someone enter power in her home for free?</td>
<td>You will have to apply and pay all the necessary dues</td>
</tr>
<tr>
<td>Irumba Sylvester</td>
<td>Chairman Majengo LC1</td>
<td>• The proposed power to connect the Trading center is a prepaid meter of Yaka. How long can it last while cooking beans?</td>
<td>UMEME shall be responsible for connecting individual households and shall decide whether to install pre-paid meters or not.</td>
</tr>
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<td>• When someone wants electricity about 1km from the main distribution line, how will they get it?</td>
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<td>• If someone is a good customer for power does he get any bonus?</td>
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<td>• There are landlords and tenants who pays for the electricity?</td>
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<tr>
<td>Name</td>
<td>Position/Rural Council</td>
<td>Question</td>
<td>Response</td>
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<td>--------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
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<tr>
<td>Asiimwe Ismail</td>
<td>Resident Majengo TC</td>
<td>• When power enters his home and a fault occurs burning it who pays? Is it him or the electricity company?</td>
<td>Houses shall be inspected by competent electricians before being connected to the grid, a certificate shall be issued before UMEME can connect you</td>
</tr>
<tr>
<td>Tumwine Enock</td>
<td>Resident Kyapaloni TC</td>
<td>• Kyapaloni TC residents have been compensated and told to relocate to give way to the oil refinery project. So the power distribution project will not find them in this area.</td>
<td>RAP has been prepared</td>
</tr>
<tr>
<td>Ozehe Lawrence</td>
<td>Resident Kyapaloni TC</td>
<td>• What is the procedure for getting electricity into a homestead?</td>
<td>Usual procedure of shall be applied. First secure a certificate of wiring and then apply to the distributor</td>
</tr>
<tr>
<td>Kabagambe Bosco</td>
<td>Resident Kigaaga TC</td>
<td>• What happens when the electric pole is to pass through his house?</td>
<td>The pole are aligned along the road and mostly within the road reserve. Chances of locating a pole within a house are minimal</td>
</tr>
<tr>
<td>Birimumaso Francis</td>
<td>Resident Kigaaga TC</td>
<td>• How many transformers are allocated to the area?</td>
<td>This will depend on the distributor and the number of consumers</td>
</tr>
</tbody>
</table>
| Trumba Jacent        | Councilor, Kigaaga TC  | • Welcomes the project in the area and observes that they are tired of using paraffin lights due expenses and fumes.  
• Will the electricity project compensate only those with property on land or even those without property but only bare land?  
• Does the project provide sensitization workshops before power installation in people’s homes as it is dangerous? | RAP has been prepared                                                       
|                      |                        |                                                                          | More sensitizations will be conducted                                       |
| Byabasole Amos       | Resident, Kigaaga TC   | • Welcomes the government program of rural electrification  
• Does he get compensated for the poles that traverse his land?  
• Where is the sourcing of labour for the power project going to be got from?  
• There are both permanent and semi-permanent houses. Is the power proposed for only those which are permanent? | Local labour force shall be utilized for the semi-skilled and unskilled force |
| Turyatemba Deodenus  | Resident Kigaaga TC    | • People in the community are constructing near the roads. What advice are we giving them?  
• Where is the power coming from and ending up. Is there a provision for transformers? | Transformers are a must, so that power can be stepped up and down  
And distributed to the various consumers as per their needs |
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Description</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irumba Ronald</td>
<td>Resident Kanywabarogo TC</td>
<td>If the lines pass through someone’s property do they get any compensation?</td>
<td>RAP has been prepared</td>
</tr>
<tr>
<td>Kasimba Charles</td>
<td>Chairman Kanywabarogo LC 1</td>
<td>Welcomes the project in the area on behalf of the community and requests for community sensitization on electricity usage.</td>
<td>More sensitizations will be conducted</td>
</tr>
<tr>
<td>Muhwezi Julius</td>
<td>Resident Kanywabarogo TC</td>
<td>Does the project have a provision for transformers in their trading center?</td>
<td>Transformers are a must, so that power can be stepped up and down and distributed to the various consumers as per their needs.</td>
</tr>
<tr>
<td>Besigomwe Leodinas</td>
<td>Resident Kanywabarogo TC</td>
<td>What happens when the proposed extension power line is to pass through a public place like a market or church?</td>
<td>The pole are aligned along the road and mostly within the road reserve. Chances of locating a pole within such places are minimal.</td>
</tr>
<tr>
<td>Bashabomwe Deus</td>
<td>Councilor Kanywabarogo TC</td>
<td>Some area residents may prefer power lines not to pass through their land and opt for courts of law. What does the distribution company do?</td>
<td>The proposed distribution line is intended to serve the communities along the line and not just an institution like the one to Bugambe factory.</td>
</tr>
<tr>
<td>Nuwagaba Gerald</td>
<td>Resident Kanywabarogo TC</td>
<td>Who pays for the electricity bills?</td>
<td>Individual consumers shall pay their own bill</td>
</tr>
<tr>
<td>Atumanya Ronald</td>
<td>Resident Kidoma TC</td>
<td>Will the proposed power extension project pass only the road side and not enter villages?</td>
<td>The distribution company shall decide where to extend to the line depending on the demand and shall also decide whether to install pre-paid meters or not.</td>
</tr>
<tr>
<td>Mutabazi Fred</td>
<td>Chairman Kidoma LC 1</td>
<td>If power passes peoples properties will they be compensated and how?</td>
<td>RAP has been prepared</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power will pass via big support lines. How will the community access it?</td>
<td>Community members shall be given priority to work on the project especially during construction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>When a person has eucalyptus trees for electric poles who can he approach their sale?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The project had better consider seeking community labour during project implementation.</td>
<td></td>
</tr>
<tr>
<td>Musinguzi Robert</td>
<td>Resident Kidoma</td>
<td>Is power for everyone or there are specific houses it is meant for?</td>
<td>The entire community is entitled to be connected provided they have properly wired their houses and duly applied.</td>
</tr>
<tr>
<td>Muzinya David</td>
<td>Resident Kidoma</td>
<td>• How does one get power into his home?</td>
<td>Usual procedure of shall be applied. First secure a certificate of wiring and then apply to the distributor</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td>---------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Byakagaba Augustine</td>
<td>Resident Kidoma</td>
<td>• Is the proposed power supply line a three or single phase line for home use?</td>
<td>Both</td>
</tr>
<tr>
<td>Rutaremwa Fred</td>
<td>Mayor Kidoma</td>
<td>• It is good power is finally coming to their area but how is the community going to benefit?</td>
<td>They shall be connected to the grid</td>
</tr>
<tr>
<td>Bihugyeho Silvano</td>
<td>Resident Kidoma</td>
<td>• People pay bills for electricity but why does the company switch it off? • The power project had better come soon since they have cut trees for a long time without electricity.</td>
<td>Its shall not be expensive in th long run</td>
</tr>
<tr>
<td>Kyalikunda Everse</td>
<td>Resident Butimba</td>
<td>• When is the construction of the power line beginning? • Is power meant for only houses near the roads?</td>
<td>The entire community is entitled to be connected provided they have properly wired their houses and duly applied</td>
</tr>
<tr>
<td>Nkwasibwe Tom</td>
<td>Resident Butimba</td>
<td>• The community expects to benefit from the project as it wants to start small scale projects</td>
<td>Noted</td>
</tr>
<tr>
<td>Arora Alex</td>
<td>Resident Butimba</td>
<td>• There are community members who have poorly constructed houses. Will these too have access to power?</td>
<td>Only properly wired their houses shall apply</td>
</tr>
<tr>
<td>Mukidi Christopher</td>
<td>Mayor Butimba</td>
<td>• Welcomes the Rural electrification projects and makes an observation that power wherever it exists is quite expensive.</td>
<td>Communities shall appreciate the usefulness of power with time and shall willingly pay for it</td>
</tr>
<tr>
<td>Mataata Nelson</td>
<td>Resident Kabaale</td>
<td>• There is need to train the community on power.</td>
<td>Noted</td>
</tr>
<tr>
<td>Beyendela Moses</td>
<td>Resident Kabaale</td>
<td>• Hopes that this project is going to be fair where compensation of individuals arises</td>
<td>Noted</td>
</tr>
<tr>
<td>Kinene Robert</td>
<td>Resident Kabaale</td>
<td>• How will the people get power into their homes from the main grid?</td>
<td>Usual procedure of shall be applied. First secure a certificate of wiring and then apply to the distributor</td>
</tr>
<tr>
<td>Mugisha Shadrack</td>
<td>Resident Kabaale</td>
<td>• In instances where an electric pole collapses on someone’s property and damages it does he get compensated?</td>
<td>Yes, The distribution company shall be responsible for all its poles and shall maintain them routinely. However, people are advised not to construct within the ROW</td>
</tr>
<tr>
<td>Owingi Ibrahim</td>
<td>Resident Kabaale</td>
<td>• Should the people from the community expect work on this project?</td>
<td>Local residents shall be given first priority</td>
</tr>
<tr>
<td>Isingoma Wilberforce</td>
<td>Resident Kiziranfumbi</td>
<td>• We anticipate a reduction in power the moment it is extended to more rural areas.</td>
<td>No such reduction is anticipated since more generation centres are being constructed all over the country</td>
</tr>
<tr>
<td>Name</td>
<td>Community</td>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Wadooli Ismah</td>
<td>Resident Kiziranfumbi</td>
<td>• He believes that power line passing below someone’s house have health concerns associated.</td>
<td>No line shall be constructed below a building</td>
</tr>
<tr>
<td>Kisembo Susan</td>
<td>Resident Kiziranfumbi</td>
<td>• Wonders whether people in rural areas will afford for the proposed power project</td>
<td>It shall be affordable in the long run</td>
</tr>
</tbody>
</table>
| Lukwiya Jackson    | Resident Olwiyo | • Welcomes the rural electrification project in the area  
• Notes that the project is timely as they would love to open up small industries in the area and boost businesses  
• How long is going to take for the rural electrification project to start?  
• How is power going to be extended from the trading center to the villages?  
• When a power pole next to your home breaks destroying the home who comes to rescue the situation?  
• The distribution company shall be responsible for all its poles and shall conduct routine maintenance to the way leave  
• The area shall be connected to the national grid, which dam supplies a specific area may not necessarily be known to the consumer | noted                                                                                                                                 |
| Mwaka Joe          | Resident Olwiyo | • There is need for the electricity board to find time and educate the community on power use  
• He is certain that the moment power is extended to the community development will be faster  
• Setting up projects requiring electricity was slow but is certain that power will improve businesses around  
• If the place is very far from the extended power line will it be free to enter a home or is the community going to pay for the poles required?  
• Individual consumers shall pay their own bill  
• Community members shall be given priority to work on the project especially during construction | Sensitizations shall be conducted Noted |
<table>
<thead>
<tr>
<th>Rubangakene Morris</th>
<th>Resident Anaka</th>
<th>Several districts have been considered for the rural electrification project. A RAP has been prepared for the project.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• How many districts are being considered for the rural electrification project? Is it only Nwoya district?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Some people may not be interested in poles passing through their land. Do we consider compensating them.</td>
<td></td>
</tr>
</tbody>
</table>
Figure 4: Public consultations during the study at Anaka

Figure 5: Consultations with youth group in Kiziranfumbi areas
5 POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

The purpose of this section is to set out the legislative, regulatory, and policy context in which the distribution lines being proposed and with which the project must comply. It discusses policy, legal and institutional framework within which the project brief was conducted. Relevant policies have also been reviewed and the relevance highlighted as in subsequent sections below.

5.1 National Policy Framework

5.1.1 The National Environment Management Policy, 1994

The overall goal of this policy is promotion of sustainable economic and social development mindful of the needs of future generations and EIA is one of the vital tools it considers necessary to ensure environmental quality and resource productivity on long-term basis. The policy calls for integration of environmental concerns into development policies, plans and projects at national, district and local levels. Hence, the policy requires that projects or policies likely to have significant adverse ecological or social impacts undertake an EIA before their implementation. *This sets a stage for the requirement of an ESIA study on this project to ensure project sustainability.*

5.1.2 Uganda’s Vision 2040

In ‘Vision 2040’ Ugandans set themselves many goals to achieve by the year 2040. The overall goal is, having a transformed Ugandan society from a peasant to a modern and prosperous country within 30 years”. Energy and in particular electricity is a driver of socio-economic transformation of a nation. Therefore, for Uganda to shift from a largely peasantry to an industrialized and largely urban society, it must be propelled by electricity as a form of modern energy. *Hence, the planned extension of the grid to the project areas is consistent with the GoU Vision 2040.*

5.1.3 The Energy Policy, 2001

The policy goal is to meet energy needs of Uganda’s population for social and economic development in an environmentally sustainable manner. The policy recognizes linkages between the energy sector and other sectors such as economy, environment, water resources, agriculture, forestry, industry, health, transport, education, decentralization and land use. Hence, at the sectoral level, the policy strengthens provisions of the National Environment Management Policy, 1994 that emphasizes need for environmental impact assessment. This policy recognizes the energy sector as potentially having more significant environmental impacts than most other economic sectors. *Since energy development and environmental damage are related, the policy recognizes need to mitigate both physical and social environmental impacts of energy projects.*

5.1.4 Plan for Modernization of Agriculture (PMA)

The overarching goal of the Plan for Modernization of Agriculture (PMA) is poverty eradication. Modernizing agriculture is another way to eradicate poverty through increased production thus, ensuring that there is enough food for all the people at all times. The majority of the population lives in rural areas and is engaged in subsistence agriculture. Therefore, the intervention of rural electrification will seek to increase the productivity of factors of production in agriculture, to ensure food security, to create gainful employment, to increase incomes, and to improve the quality of life of those engaged in the agriculture sector and to Access to electricity is key to promote agro-processing through and value addition.
Given that the project area is predominated by agriculture (mainly subsistence but with some commercial) as a source of livelihood, this project is relevant for PMA as availability of electricity in these areas will result in value addition leading to increased incomes.

5.1.5 The National Policy of HIV/AIDS

This was largely developed along the lines of the International Labor Organization (ILO) Code of Practice on HIV/AIDS and the World of Work provides policy guidance and implementation strategies for HIV and AIDS interventions at the workplace.

The influx of immigrate labor to implement the project, plus the movement of people into the project area for employment opportunities will increase the spread of HIV/AIDS in the area. This Environmental Project Brief streamlines the policy objectives into the project and without forgetting the communities where it will be implemented.

5.1.6 The National Policy for the Conservation and Management of Wetlands, 1995

The overall aim of this policy is to promote and ensure long-term conservation, wise use and protection of wetlands and their resources for the ecological and common good of all citizens.

This project will run along seasonal and permanent wetlands. The policy recommends that for any activity that is inconsistent with the wetland environment, an Environmental Impact Assessment should be done. This Environmental Project Brief has been designed to ensure that all identified environmental impacts are eliminated, mitigated or minimized. Modification and restoration measures in wetlands have been recommended.

5.1.7 The Uganda Gender Policy

The Uganda Gender Policy is an integral part of the national development policies. It is a framework for redressing gender imbalances as well as a guide to all development practitioners.

The aim of this policy is to guide all levels of planning, resource allocation and implementation of development programmes with a gender perspective. The emphasis on gender is based on the recognition that "gender" is a development concept useful in identifying and understanding the social roles and relations of women and men of all ages, and how these impact on development.


The National Development Plan of Uganda aims to address structural bottlenecks in the economy to accelerate socioeconomic transformation and bring a portion of the third of the population out of poverty. The plan outlines the development priorities and implementation strategies to help achieve this. Among these, energy and specifically rural electrification is acknowledged as an enabling sector that will require integration with other sectors of the economy for successful socioeconomic transformation. This plan has been put in place with the vision “A transformed Ugandan society from a peasant to a modern and prosperous country within 30 Years” and theme; “Growth, Employment and Socio-Economic Transformation for Prosperity”. Chapter 3.2 section 120 of the NDP sets out objectives including; increasing household incomes and promoting equity, improving stock and quality of economic infrastructure, increasing access to quality social services, and promoting science, technology, innovation and ICT to enhance competitiveness.

The above objectives are directly linked to the project because electricity distribution and use will form an important part in achieving them in the project areas.
5.2 National Legal Framework

Uganda Legal section presents a summary of the legal and institutional frameworks governing the construction and operation of electrical transmission and distribution lines. It also summarizes the relevant lead agencies and departments that administer and monitor issues related to the proposed investment.


The importance of environment in Uganda is recognized by the Constitution of the Republic of Uganda of 1995. The Constitution provides for inter alia, matters pertaining to land, natural resources such as rivers and lakes and the environment. It is the duty of Parliament to protect and preserve the environment from abuse, pollution and degradation and also to provide for measures intended to manage the environment for sustainable development and promotion of environmental awareness.

5.2.2 The Electricity Act, 1999

The Electricity Act, 1999 aims at bringing about an enabling environment for the transformation of the electricity sector. The main objective of the Act is to provide a framework for regulation of the generation, transmission, distribution, sale, export, import and distribution of electrical energy in Uganda. Part VII, Article 63 of the Act stipulates that Government shall promote, support and provide rural electrification programmes, while Articles 64 and 65 require the Minister responsible for electricity to prepare and implement a Rural Electrification Strategy and Rural Electrification Fund. This project operationalizes the Act by enabling government extend electricity in remote rural districts of Ntungamo, Nwoya and Hoima. The Project is consistent with the Act as it provides power to rural community.

5.2.3 The National Environment Act Cap 153

Its section 20 makes it a legal requirement for every developer to undertake an environmental assessment for projects listed in the third schedule of the Act and any activities that are out of scale with their surroundings Electrical distribution lines are listed under the Third Schedule.

*The proposed distribution lines will therefore need Approval of the Project Brief before their implementation.*

5.2.4 The Land Act, 1998

Section 43 of the Act empowers the Government of Uganda to acquire land compulsorily in accordance with Article 26(92) & Article 237 of the Constitution. The Act also stipulates that land acquisition can be through private treaty with the owner/lawful occupant or compulsorily in public interest. However, the Constitution and the Land Act have both guaranteed security of occupancy of land to lawful and bona fide occupants. *In this project, the land for the project is targeted to be existing road reserves to the extent possible to avoid instances of land uptake and compensation.*

5.2.5 The Workman’s Compensation Act, 2000

The law requires that compensation be paid to a worker who has been injured or acquired an occupational disease or harmed in any way in the course of his work. Sections 6 and 7 provide for the compensation for fatal injury and 46 months of earning. For any permanent incapacity compensation will be paid in the equivalent of 60 and 72 months earning respectively. Section 15 puts medical examination for an injury to be the Employer’s responsibility and prescribes a form of notification of injury to the Commissioner for Labor. The implementation of the project must of necessity provide and ensure that the safety and the health of the workers is not
compromised and matters of injuries, accidents and death while at work are all adequately addressed.

5.2.6 Historical Monument Act, Cap 46

This act provides for the preservation and protection of historical monuments and objects of archaeological pale-ontological ethnographical and traditional interests. Under this Act the Minister has wide ranging powers to protect any of the above objects and under Section 8, no person whether owner or not shall cultivate or plough the soil so as to effect to its detriment any object declared to be protected or preserved, and no alteration is permitted on any object declared to be protected or preserved; And under section 11, any person who discovers any object which may reasonably be considered to be a historical monument or an object of archaeological, pale-ontological, ethnographical, and traditional interests is required to report it to the Conservator of antiquities within 14 days of the discovery.

5.2.7 National Forestry and Tree Planting Act, 2003

Among others, this Act provides for the sustainable use of forest resources and the enhancement of the productive capacity of forests and provides for the promotion of tree planting. This law applies in areas that are traversed by the power distribution line, requiring compensation to offset any likely negative impact.

5.2.8 Town and Country Planning Act, Cap 246

This Act aims at consolidating the orderly and progressive development of land, towns and other areas whether urban or rural. The Act provides for planning areas and regulation on compensation regarding properties within planning areas among others. Both Extension and Distribution Lines have an impact on the Towns and Country Plans of the area considering that the proposed distribution line corridor passes upcoming RGC and Trading centres. Although none of the affected TC and RGC have in place a structural plan. There will be a need to anticipate their introduction in the near future. For this reason this Act is relevant to the proposed project.

5.2.9 The Roads Act, Cap 345

The Act creates a road reserve, which is bounded by parallel imaginary lines no more than fifty feet from the centre of any road. All Developers of proposed projects must acquaint themselves with the provisions of this Act so that they do not risk prosecution or structure demolition should construction take place within the road reserve. Although the Act predates the NEA (Cap 153), it is clear that any Developer must undertake an EIA of any project that is likely to affect the road reserve. REA will respect this law while implementing the project.

5.2.10 The Occupational Safety and Health Act (2006)

The Act provides for the prevention and protection of persons at all workplaces from injuries, diseases, death and damage to property. According to the Act, the employers must provide for the protection of their workers from adverse weather, provision of a clean and healthy work environment, sanitary conveniences, washing facilities, First Aid and facilities for meals. The Act further provides for the safe access to the workplaces and safe work practices.

5.2.11 The Environment Impact Assessment regulations, 1998

The procedures for conducting EIAs and guidelines for EIA practitioners and regulatory bodies are stipulated in this document. The regulations require a detailed study to be conducted to determine the possible environmental impacts, and measures to mitigate such impacts.
The developer has the legal obligation to seek the views of the public, persons that may be affected by the proposed project, as well as all other stakeholders.

5.2.12 The National Environment (Wetlands, Rivers banks and Lakeshores management Regulations 2000

These Regulations provide principles for sustainable use and conservation of wetlands, riverbanks and lakeshores. Relevance of these regulations to the ESIA study is embedded in the following requirement:

- Measures to be put in place for the protection of riverbanks and wetlands such as prevention of soil erosion, siltation and water pollution.

These regulations are relevant considering that some portions of the project area have seasonal streams, due attention will be taken for the project issues through wetlands.

5.2.13 The National Environment (Noise Standards and Control) Regulations 2003

The regulations require that no person shall emit noise in excess of permissible noise levels, unless permitted by a license issued under these Regulations.

5.2.14 The National Environment (Minimum Standards for Management of Soil Quality) Regulations, 2001

Requires compliance with prescribed measures and guidelines for soil conservation for the particular topography, drainage and farming systems, contravention of which constitutes an offence.

5.2.15 The National Environment (Waste Management) Regulation, 1999

The National Environment (Waste Management) Regulations, 1999 apply to all categories of hazardous and non-hazardous waste and to the storage and disposal of hazardous waste and its movement into and out of Uganda. The regulations promote cleaner production methods and require a facility to minimize waste generation by eliminating use of toxic raw materials; reducing toxic emissions and wastes; and recovering and reuse of waste wherever possible.

5.3 The World Bank’s Safeguard Policies

The Bank has its environmental and social safeguard policies, a brief description of which is presented in herein as summarized under Table 2. The World Bank Health and Safety guidelines for transmission and distribution lines will be consulted and referred to during the study.
<table>
<thead>
<tr>
<th>No.</th>
<th>Safeguard Policy</th>
<th>Summary of Core Policy Requirements</th>
<th>Policy Triggered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>OP 4.01 Environmental Assessment</td>
<td>Screen early for potential impacts and select appropriate instruments to assess, minimize, and mitigate potentially adverse impacts. <em>Preparation of this Project Brief is aimed at identifying and assessing any potential impacts of this project. This policy is triggered.</em></td>
<td>✓</td>
</tr>
</tbody>
</table>
| 02. | OP 4.04 Natural Habitat | The Bank support and expects borrowers to apply, a precautionary approach to Natural resources management to ensure opportunities for environmentally sustainable development. The Bank does not support projects that involve the significant conversion or degradation of critical natural habitats.  
*Some sections of wetlands are traversed, although this is not significant care will need to be taken to minimize impacts on the wetlands, such as use of H/M member structures to increase the span length over wetlands.* | ✓ |
| 03. | OP 4.09 Pest Management | Support integrated approaches to pest management. Identify pesticides that may not be financed under the project and develop appropriate pest management plan to address risks.  
*There is application of creosote in the treatment of distribution poles. However, the treatment of the poles is done by suppliers, REA shall purchase treated poles. The impacts will be on handling of the poles during the process of transportation and erection of poles that is when workers come in contact with creosote but for a limited exposure period. Based on this, this policy is not triggered.* | X |
<p>| 04. | OP 4.10 Indigenous Peoples | Screen to determine presence of Indigenous Peoples in project area. <em>The planned project areas are not inhabited by Indigenous People and as such, this policy is not triggered by the project.</em> | X |
| 05. | OP 4.11 Physical Cultural Resources | The Bank in its projects, observes the need to support the preservation of cultural properties which includes sites with archaeological, paleontological, historical, religious or unique natural values. It seeks to avoid impacts on such sites. <em>The distribution lines will run along the road reserve areas and as such, it will not cross burial grounds. However, because of the civil works associated with the project, un-known PCRs may be encountered, hence, this policy is triggered, a Chance Finds Procedures has been prepared as part of this Project Brief.</em> | ✓ |
| 05. | OP 4.12 Involuntary Resettlement | For those who are affected by projects, avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs; assist affected persons in improving their former living standards, income earning capacity, and production levels, or at least in restoring them; encourage community participation in planning and implementing resettlement; and provide assistance to affected people regardless of the legality of land tenure. <em>The distribution lines are</em> | ✓ |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>Safeguard Policy</th>
<th>Summary of Core Policy Requirements</th>
<th>Policy Triggered?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.</td>
<td>OP 4.36 Forests</td>
<td><em>designed to pass along existing road reserves with the objective of minimizing land take. However, there will be inevitable loss of crops and some sections of woodlots. To mitigate this, Resettlement Action Plan for this project has been recommended alongside this study and it is aimed at addressing issues of property uptake in the project.</em></td>
<td>✔</td>
</tr>
<tr>
<td>07.</td>
<td>OP 4.37 Safety of Dams</td>
<td>The Bank does not finance projects that, in its opinion, would involve significant conversion or degradation of critical forest areas or related critical natural habitats. If the Bank determines that forest areas and natural habitats are not critical and that there are no feasible alternatives to the project and it’s siting, and that overall benefits substantially outweigh the environmental costs, the Bank may provide project financing provided that appropriate mitigation measures are incorporated.</td>
<td>✗</td>
</tr>
<tr>
<td>08.</td>
<td>OP 7.50 Projects on international waterways</td>
<td>For large dams, technical review and periodic safety inspections by independent dam safety professionals. <em>The project is not focused on dams and in that case this policy is not triggered.</em></td>
<td>✗</td>
</tr>
<tr>
<td>09.</td>
<td>OP 7.60 Projects in disputed areas</td>
<td>Ascertain whether riparian agreements are in place, and ensure that riparian states are informed of and do not object to project interventions. <em>The project is not on international waterways which does not trigger this policy.</em></td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure that, claimants to disputed areas no objection to the proposed project. <em>The areas of the project are not disputed.</em></td>
<td>✗</td>
</tr>
</tbody>
</table>
5.4 **Institutional Framework**

The institutional framework under which the planned project will be implemented will involve the following agencies. They are:

5.4.1 **Ministry of Energy and Mineral Development (MEMD)**

The Ministry of Energy and Mineral Development (MEMD) is the lead agency for all energy projects in Uganda. However, its interests are represented in different capacities by the Electricity Regulatory Authority (ERA) which issues licenses, and by the Rural Electrification Agency (REA), which was established for initiating and bringing rural electrification projects to fruition. REA is responsible for compliance of this project.

5.4.2 **Rural Electrification Agency**

REA was established as a semi-autonomous Agency by the Ministry of Energy and Mineral Development through Statutory Instrument 2001 No. 75, to operationalize Government’s rural electrification function under a public-private partnership. It functions as the secretariat of the Rural Electrification Board which carries out the Ministry’s rural electrification responsibilities, as defined in the Electricity Act of 1999. REA is the project implementer and is therefore responsible for the general compliance of the project with all the environmental requirements. The Agency has an Environmental Unit responsible for ensuring that all project activities are in line with the national environmental requirements and development partner’ safeguards requirements.

5.4.3 **The Electricity Regulatory Authority (ERA)**

The Electricity Regulatory Authority (ERA) is a corporate body established to oversee the implementation of the electricity Act 1999. Under the Act, ERA is mandated to review proposed investments in the energy sector and guide the promoters through implementation. ERA will ensure that, the operations costing of energy from the planned line project will be in accordance with its set standards and tariffs.

5.4.4 **Wetlands Management Department (WMD)**

WMD is mandated to manage wetland resources and its goal is to sustain the biophysical and socio-economic values of the wetlands in Uganda for present and future generations. Wetlands are under a lot of pressure from conversion for industrial development, settlements, agriculture, sand and clay mining. Most of these degrading activities are perceived to be of greater importance than wetland conservation itself. This project passes through numerous seasonal and permanent wetlands that are under the mandate of the Directorate.

5.4.5 **The National Environment Management Authority (NEMA)**

The National Environmental Management Authority (NEMA) is the principal agency for the management of the environment and coordinates, monitors and supervises all activities in the field of the environment. Its Environmental Monitoring and Compliance division of NEMA is responsible for the review and approval of EIAs, post-implementation audits and monitoring of approved projects.

5.4.6 **Local Government Administration Structures**

The lower and upper Local Council administrative units in the districts of Ntungamo, Hoima, Nwoya, Ntungamo and Amuru will be vital in implementation of the project by mobilizing political goodwill and sensitizing communities on the project as well as their district environment offices taking care of environmental aspects of the project at their levels.
6 EXISTING BASELINE ENVIRONMENT

Evaluation of the environmental impacts of the proposed activities as described in this Project Brief was carried out on the basis of the baseline environment through which the proposed distribution lines will pass and is summarized based on the baseline information in designated project routes under the following themes

6.1 Physical environment

6.1.1 Topography

6.1.1.1 Rubaare-Kakukuru-Kyempene

The topography of the project area in Rubaare-Kakukuru-Kyempene in Ntungamo areas can be described as mostly rolling (57%) and flat (39%) with mountainous terrain. The deep valleys between the hills occasionally have a combination of seasonal and permanent streams most of these drain eastwards towards the L. Victoria system. However, the areas of the project are fairly flat and gently sloping.

6.1.1.2 Amuru-Anaka (Nwoya)

For Amuru-Anaka (Nwoya) areas, the topography consists of complex low landscape with relatively uniform topography marked by few sharp contrasts like Oroko and Ajulu hills to the north, Ayamo, Awere and Omoro hills in the east (Omoro County). Generally, the altitude ranges between 1000 - 1200 meters above sea level.

The relief of Amuru consists of complex low landscape with relatively uniform topography marked by few sharp contrasts like Kilak hills in the north-eastern part of the district (Kilak County). Generally, the altitude ranges between 1,000 - 1,200 meters above sea level.

6.1.1.3 Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare

In the areas of Hoima i.e. Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare the topography in the stretch as described on the 1:1,500,000 Geology Map the project area can broadly considered comprising three geological/geomorphological provinces namely; the East Nile Precambrian Terrain. General characteristics of these provinces are generally underlain by ancient Precambrian basement complexes.

6.1.2 Geology and Soils

6.1.2.1 Rubaare-Kakukuru-Kyempene

The geology of the project area especially in the Rubaare-Kakukuru-Kyempene in Ntungamo can be said to be part of Southern Ankole geological system which is largely dominated by ancient (Precambrian) metamorphic rocks of the Toro and Karagwe-Ankolean Systems, which are intruded by slightly younger granitic rocks. The tightly folded Toro System is overlain unconfortably by the Karagwe-Ankolean System. The granitic rocks intruded the Karagwe-Ankolean at the time of fold formation and were typically emplaced in the cores of major anticlines.

6.1.2.2 Amuru-Anaka

Detailed geological presentations in the subsequent areas covered by the project i.e. Amuru-Anaka parts can be termed to be underlain by graminoids rocks.
6.1.2.3 Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare

The geology of the project area falls within the meso-cenozoic sediments which are close to the shores of L. Albert. This formation is close to the larger expanse of granitoids. Further east are parts of Proterozoic rocks of mainly Bukoban type. Soils in the project area are generally sandy loam and acidic in nature with minimal water holding capacity especially during rainy seasons. The sand percentage stands at 65%, clay at 19% and silt at 16%. Crops that grow in acidic areas can generally be supported around the project site.

6.1.3 Climate

6.1.3.1 Rubaare-Kakukuru-Kyempene

The climatic conditions of the project area are covered under Mbarara district which receives average rainfall of 1200mm with two rainy seasons February to May and September to December. The area has two (2) dry seasons with temperatures of between 17°C to 30°C with relative humidity range from 80-90% in the morning and 48-60% in the evening throughout the year. The area is generally a warm area with temperature ranging between 14°C and 30°C. It experiences south easterly winds with moderate mean becoming slightly higher during the dry seasons. In terms of visibility, the area is generally with a good visibility which reduces to haziness during the dry season and foggy in the rainy season. The rainfall in the area is of two seasons in which, March-May and September-November are generally wet. The other months are not very dry with occasional rains.

6.1.3.2 Amuru-Anaka

The average annual rainfall in the area of the project road ranges from 1,260-1,800 mm. Most of this rainfall is of relatively high intensity generated during storms. Such rainfall will tend to cause soil erosion on bare or unstable ground. It is reported that rainfall patterns are changing and becoming less predictable. Mean minimum temperature in the area is between 17.5°C and 20°C whereas the mean maximum temperature is 30°C per year. December is on average the month with most sunshine. Rainfall and other precipitation peaks around October. The time around February is driest.

6.1.3.3 Kiziranfumbi-Kidoma-Kikoob-Kyapoloni-Kabaare

This route section of the project lies in the bimodal rainfall areas with totals ranging from about 800mm in the L. Albertine region rising rapidly further away to the East above the escarpment to between 1250–1500mm per annum before tapering off to 1000mm in the Eastern border areas of the district. The peak periods are between March–May and September to December. This presents a very important potential for agricultural development in the crop-growing areas.
<table>
<thead>
<tr>
<th>Type of Receptor</th>
<th>Location in relation to the road</th>
<th>GPS Location</th>
<th>Estimated area to be crossed by the power lines</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majengo wetland</td>
<td>Both sides of the road</td>
<td>0285481mE, 0158557mN</td>
<td>0.23Km</td>
<td>Need for two membered structures for it to be crossed.</td>
</tr>
<tr>
<td>Eucalyptus woodlot</td>
<td>Right Hand side</td>
<td>0288151mE, 0155654mN 0285481mE, 0158557mN</td>
<td>0.01 km</td>
<td>The woodlot stretches into the road reserve, therefore some tree stands will be lost to pave way for the line. The line should be constructed on the left hand side to avoid clearing the plantation.</td>
</tr>
<tr>
<td>River Kanywabarongo</td>
<td>Both sides of the road</td>
<td>0289058mE, 0154999mN Elev: 1084M asl</td>
<td>0.08Km</td>
<td>The wetland has a lot of water, and will therefore need two membered structures for it to be crossed.</td>
</tr>
<tr>
<td>Kidoma Wetland system</td>
<td>Both sides of the road</td>
<td>0291589mE, 0152737mN</td>
<td>0.05Km</td>
<td>Need for two membered structures for it to be crossed.</td>
</tr>
<tr>
<td>Kidoma Wetland system</td>
<td>Both sides of the road</td>
<td>0291713mE, 0152707mN</td>
<td>0.03Km</td>
<td>Need for two membered structures for it to be crossed.</td>
</tr>
<tr>
<td>Coffee plantation at Wambabya</td>
<td>Right hand side</td>
<td>0292631mE, 0152230mN</td>
<td>0.04Km</td>
<td>The line should be constructed on the left hand side to avoid clearing the plantation.</td>
</tr>
<tr>
<td>Pine woodlot at Butimba Trading Centre</td>
<td>Left hand side of the road</td>
<td>0293984mE, 0151933mN</td>
<td>0.04Km</td>
<td>The woodlot stretches into the road reserve, therefore some tree stands will be lost to pave way for the line.</td>
</tr>
<tr>
<td>Pine trees (After Butimba TC)</td>
<td>Right Hand Side</td>
<td>0295317mE, 0151677mN</td>
<td>0.1Km</td>
<td>The line should be constructed on the left hand side to avoid clearing the plantation.</td>
</tr>
<tr>
<td>Pine woodlot within</td>
<td>Right Hand side</td>
<td>0298263mE, 0150655mN</td>
<td>0.05Km</td>
<td>The line should be constructed on the left hand side to avoid clearing the plantation.</td>
</tr>
<tr>
<td>Karwensambya Trading Centre</td>
<td>Eucalyptus woodlot (After Karwensambya Trading center)</td>
<td>Left Hand Side</td>
<td>0299843mE, 0148568mN</td>
<td>0.04Km</td>
</tr>
</tbody>
</table>
6.1.4 Vegetation in Amuru-Anaka section

The vegetation of Gulu, Amuru, Anaka areas largely consists of intermediate savannah grassland. This type of vegetation is that found between the moist and the dry savannah. The vegetation type is characterized by open canopy of trees of 10-12 meters high and underlying grasses of 80cm high. The trees are fire resistant and are therefore able to regenerate themselves after being burnt with fire.

These are dominated by trees such as; *Combretum spp*, *Anno senegalesis*, and a mix of *Acacia hockii*. The trees are a climax of seasonal fires in the dry season. Underneath the trees are expanses of *Graminae* communities such as *Hyperrehenia rufa*, *Imperata cylindrica*, *Panicum maximum*, *Acacia*. Other plants observed included; *Ficus natalensis*, *contyetum*, *Borrassus aethicpum* (Fanpalm) and *Digitria scalarum*. There are also some herbs like *Bidens pilosa*, *Ageratum Coinzoides*, *Amarathus spp* and *Latana camara*. Tree species included; *Eucalyptus*, *Jacaranda*, *Cupressus*, *Thevethia peruviana*, *Pines*, *Hibiscus*, *Bougain Vilae* and *Flamboyant*. *Pennisetum purpureum* (elephant grass) is the most pronounced plant species observed along all routes.

Due to return of peace in the north, these ecosystems are interspaced with cultivations and economic activity. The arable crops observed along all the routes included; millet, simsim, cassava, sorghum, sweet potatoes, beans, peas and ground nuts. The vegetation communities in this section are not rare, endangered or threatened.
<table>
<thead>
<tr>
<th>Type of Receptor</th>
<th>Location in relation to the road</th>
<th>GPS Location</th>
<th>Estimated area to be crossed by the power lines</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eucalyptus woodlot</td>
<td>Left hand side</td>
<td>0377135mE, 0281282mN</td>
<td>0.1Km</td>
<td>Approximately 8 year old plantation. The line should be constructed on the right hand side to avoid clearance of the wood lot</td>
</tr>
<tr>
<td>Pine woodlot</td>
<td>Left hand side</td>
<td>0380545mE, 0286052mN</td>
<td>0.75Km</td>
<td>The line should be constructed on the right hand side to avoid clearance of the wood lot</td>
</tr>
<tr>
<td>Chaayi river</td>
<td>Both sides</td>
<td>0378532mE, 0290515mN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.1.4.1 Rubaare-Kakukuru-Kyempene ecosystems

The area to be crossed by the distribution lines is largely farm land and has no natural elaborate vegetation stands (Figure 6-7). In some section of the project are isolated pockets trees which are outside the planned routes hence, they will not be affected by the project.

Figure 6: Existing road through a farm along which, the distribution lines will traverse in Rubaare area

Figure 7: Road section through Kategure wetland
<table>
<thead>
<tr>
<th>Name of wetland</th>
<th>Location in relation to the road</th>
<th>GPS Location</th>
<th>Estimated area to be crossed by the power lines</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fira wetland</td>
<td>Both sides</td>
<td>0°58'56.3012&quot;S, 30°15'39.2662&quot;E</td>
<td>0.05km</td>
<td>Wetland degraded with eucalyptus trees</td>
</tr>
<tr>
<td>Kanoni wetland</td>
<td>Left hand side of the road</td>
<td>0°58'55.7732&quot;S, 30°15'04.3950&quot;E</td>
<td>0.12km</td>
<td>The line should be placed on the right hand side to mitigate the potential impacts on the wetland</td>
</tr>
<tr>
<td>Ahakatindo wetland</td>
<td>Right hand side of the road</td>
<td>0°58'55.3951&quot;S, 30°14'33.1296&quot;E</td>
<td>0.03km</td>
<td>The wetland is degraded with eucalyptus. However to avoid tree clearance, the line should be on the left hand side of the road</td>
</tr>
<tr>
<td>Kategure wetland system</td>
<td>Both sides of the road</td>
<td>0°59'16.5110&quot;S, 30°13'06.8396&quot;E</td>
<td>0.1km</td>
<td>The wetland has a lot of water, and will therefore need two membered structures for it to be crossed.</td>
</tr>
<tr>
<td>Kahundo wetland</td>
<td>Right hand side</td>
<td>0°59'15.5209&quot;S, 30°13'19.5653&quot;E</td>
<td>0.2km</td>
<td>The line should be constructed on the left hand side to avoid clearing the plantation</td>
</tr>
</tbody>
</table>
6.2 Social Environment

This section presents the socio-economic assessment, and the current project socio-economic baseline which is a summary of the situation formed through a combination of primary survey data, secondary data and stakeholder consultations. Knowledge of existing population, infrastructure (such as roads), available healthcare services / prevalent diseases, socio-economic profile and literacy levels of the project area is essential to the understanding of the project affected communities, potential benefits to recipient communities and likely challenges during project implementation.

6.2.1 Socio-economic Status of the Main Target Groups in the Project Areas

This section presents the socio-economic status of the main target groups in the project areas for rural electrification and gives an assessment of the Social economic baseline information and project impacts detailing the project affected people by household, background characteristics their losses and impact electric power supply will have on the different groups. The current socio-economic situation was formed through a combination of primary survey data, secondary data and stakeholder consultation. The key target groups are household heads, household members, men, women and children.

The three project areas of the Rural Electrification Programme as indicated below covers 4 districts of Amuru & Nwoya, Hoima and Ntugamo as shown in the table below.

2. Amuru-Nwoya District Headquarters (Anaka) (Approximately 43km of MV and 9km of LV).
3. Rubaare-Kakukuru-Kyempene (Approximately 26km of MV and 10km of LV).

Table 6: District Profiles

<table>
<thead>
<tr>
<th>Project</th>
<th>District</th>
<th>County</th>
<th>Sub-county</th>
<th>Parish</th>
<th>Village</th>
<th>HHs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amuru – A – Nwoya (43km MV &amp; 9km LV)</td>
<td>Amuru</td>
<td>Amuru</td>
<td>Amuru, Amuru T/C</td>
<td>Amoyokuma Otwee</td>
<td>Corner Lukon, Dog Akago Otwee</td>
<td>13</td>
</tr>
<tr>
<td>Kiziranfumbi – Kabaale (50km MV &amp; 21km LV)</td>
<td>Hoima</td>
<td>Bugahya</td>
<td>Bugambe Buseruka</td>
<td>Kidoma Bulimya Butimba Kabaale Ruguzize</td>
<td>Bujugu East, Butimba, Kabaale, Budoma, Kigaaga, Kisambo, Kisita, Kitegwa, Kyabakenda, Kyakasoro, Kyakatamba, Kyarwensambya, Nyamasoga, Rujunju</td>
<td>270</td>
</tr>
</tbody>
</table>
6.2.1.1 Amuru District

Amuru District is bordered by Adjumani District to the north, South Sudan and Lamwo District to the northeast, Gulu District to the east, Nwoya District to the south, Nebbi District to the southwest and Arua District to the west. The administrative headquarters of the district at Amuru, are located approximately 60 kilometres (37 miles), by road, west of Gulu, the largest city in the sub-region.

The district was part of Gulu District. Amuru District, together with Agago District, Gulu District, Kitgum District, Lamwo District, Nwoya District and Pader District in the greater Acholi sub-region, which is a home to an estimated 1.5 million Acholi, according to the 2002 national census. The district is predominantly a rural.

The 2002 national census estimated the population of Amuru District at 177,783. The district population is growing at an estimated annual rate of 3.5%. It was estimated that the population of the district in 2014 is approximately 234,100.

Subsistence agriculture is the backbone of the district economy, employing 98% of the population. Arable land, which makes up about 90% of the total land area in the district is very fertile. However, during the last twenty (20) years, less than 1% of the land was utilized for agriculture on account of insecurity caused by the Lord's Resistance Army. With the return of security to northern Uganda in 2006, the situation in the district is expected to improve.

Crops grown in the district include: cotton, tobacco, maize, millet, sorghum, sweet potatoes, cassava, groundnuts, simsim, beans, peas, and sunflower.

6.2.1.2 Nwoya District

Nwoya District is bordered by Amuru District to the north, Gulu District to the northeast, Oyam District to the east, Kiryandongo District to the southeast, Masindi District to the south and Bulisa District to the southwest. Nebbi District lies to the west of Nwoya District. Nwoya, the main political, administrative and commercial center in the district, is located approximately 44 kilometres (27 miles), by road, southwest of the city of Gulu, the largest metropolitan area in the Sub-Region. This location is approximately 330 kilometres (210 miles), by road, north of the city of Kampala, Uganda's capital and largest metropolitan area.

Nwoya District is one of the newest districts in Uganda. It was established by Act of Parliament and began functioning on 1 July 2010. Prior to that date, it was part of Amuru District.

6.2.1.2.1 Population

In 2002, the population of Nwoya District was recorded at 41,010. In 2012, the mid-year population of the district was estimated at 54,000.

6.2.1.2.2 Economic Activity

Prior to 2013, subsistence agriculture and livestock husbandry were the main economic activity in the district. More recently, crude oil deposits have been found and commercial extraction is being planned.
6.2.1.3 Hoima District

Hoima District is bordered by Buliisa District to the north, Masindi District to the northeast, Kyankwanzi District in the east, Kibaale District to the south, Ntoroko District to the southwest and the Democratic Republic of the Congo across Lake Albert to the west. Hoima, the location of the district headquarters, is located approximately 230 kilometres (140 miles), by road, northwest of Kampala, the capital of Uganda and the largest city in that country.

6.2.1.3.1 Population

In 2002, the national census that year, estimated the population of the district at about 343,620, with an annual population growth rate of 2.8%. In 2012, the mid-year district population was estimated at 548,800.

6.2.1.3.2 Economic Activity

Agriculture with emphasis on food crops is the backbone of the district economy. Crops grown include: Sorghum, Maize, Millet, Peas, Groundnuts, Sunflowers, Sweet Potatoes, Beans, Cotton, Tea, Coffee, Tomatoes, Cabbage, Onions, Tobacco.

Fishing on Lake Albert employs several hundred people. The recent discovery of petroleum in the district is increasingly attracting people from the district in the many activities that the industry entails.

6.2.1.4 Ntungamo District

Ntungamo District is a district in Western Uganda. Like most Uganda districts, it named after its 'chief town' Ntungamo, the location of the district headquarters. The current President of Uganda, Yoweri Museveni and his wife, Janet Museveni, were both born in Ntungamo District.

Ntungamo District is bordered to the north, Mitooma District, Sheema District and Mbarara District, going from west to east. Isingiro District lies to the east, the Republic of Rwanda to the south, Kabale District to the southwest and Rukungiri District to the northwest. The district headquarters at Ntungamo, which is about 66 kilometres (41 miles), by road, southwest of Mbarara, the largest town in Ankole sub-region.

6.2.1.4.1 Population

The national census of 2002 estimated the population of Ntungamo District at about 380,000, with an estimated annual population growth rate of 2.4%. It is estimated that in 2012, the population of the district was approximately 480,100.

6.2.1.4.2 Tourism

Tourism in Ntungamo District is not well developed but there are several potential tourism sites, including: Karegyeya Rock, Lake Nyabihoko, Uganda-Rwanda Border, Bird-watching in the wetlands and Agricultural development projects.

6.2.2 Socio-Economic Baseline of the project areas

The socio-economic data will form the baseline for future Monitoring and Evaluation of the project impacts towards the targeted groups. Knowledge of existing population, available healthcare services and prevalent diseases, economic activity and literacy levels of the project area is essential to understanding project targeted communities, potential benefits to recipient communities and likely challenges during and after project implementation. In the report these lines have been abbreviated as follows;

- A-N-N for Amuru-Nwoya power line,
- K-K-K for Kizirafumbi-Kidoma-Kabaale power line and
- N-K-K for Ntungamo-Kakuku-Kyempene power line

### 6.2.2.1 Age of Household Heads

Rural electrification is the process by which access to electricity is provided to households or villages located in the isolated or remote areas of a country. Due to rural electrification the rural population starts participating in a "self-problem solving" climate rather than a "depending on the government" climate. This obviously results in increased net tax revenue to government, thereby improving household income and reducing poverty. Majority of the population in the project areas are adults between 18 years to 69 years, which is the most economically active age group. The age distribution in the project areas is presented in figure 8 below.

![Age distribution of Household Heads](image)

**Figure 8: Age distribution of Household Heads**

### 6.3.2.1 Education levels of Affected Persons

![Education levels of HH Members](image)

**Figure 9: Education levels of Affected Persons**
The majority of the people in the project areas have primary level education followed by those who do not have any education level qualifications. This implies that during project implementation, casual labor is in abundance.

6.2.2.2 Income and Livelihood of HHs

The significant farming livelihood and income activities in the project areas are subsistence farming and livestock farming (Figure 11 below). Whereas the majority is in subsistence farming, the main source of income for the people in the project is through employment in civil service (See table 12 below). The estimated income is also provided in Table 7 below:

![Main Farming Activities](image1)

<table>
<thead>
<tr>
<th>Growing Rice</th>
<th>K-K-K</th>
<th>N-K-K</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>56%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subsistence Farming</th>
<th>100%</th>
<th>71%</th>
<th>78%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bee Keeping</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livestock Keeping</td>
<td>39%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 10: Income and Livelihood of HHs

Source of Income/livelihood Through Employment

![Forms of Employment of HHH](image2)

<table>
<thead>
<tr>
<th>Civil Service</th>
<th>K-K-K</th>
<th>N-K-K</th>
</tr>
</thead>
<tbody>
<tr>
<td>3%</td>
<td>48%</td>
<td>86%</td>
</tr>
<tr>
<td>Proff/Consulting</td>
<td></td>
<td>14%</td>
</tr>
<tr>
<td>Pension/Handouts</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Others</td>
<td>24%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 11: Source of Income/livelihood Through Employment
Table 7: Estimated Family Income per Month

<table>
<thead>
<tr>
<th>Power line</th>
<th>Less Than 10,000 UGS</th>
<th>10,000 - 50,000 UGS</th>
<th>50,000 - 100,000 UGS</th>
<th>100,000 UGS - 500,000 UGS</th>
<th>500,000 - 1,000,000 UGS</th>
<th>More than 1,000,000 UGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-N-N</td>
<td>3%</td>
<td>4%</td>
<td>21%</td>
<td>41%</td>
<td>15%</td>
<td>16%</td>
</tr>
<tr>
<td>K-K-K</td>
<td>2%</td>
<td>9%</td>
<td>17%</td>
<td>38%</td>
<td>14%</td>
<td>20%</td>
</tr>
<tr>
<td>N-K-K</td>
<td>2%</td>
<td>12%</td>
<td>15%</td>
<td>48%</td>
<td>18%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Surveys

6.2.2.3 Source of water in project areas
The main sources of water are presented in the figure 12 below: On Amuru-Nwoya line and Kiziranfumbi-Kabale line, the main sources of water are springs, unprotected wells and boreholes. Whereas on Ntungamo-Kakukuru-Kyempene line the main source is tap water that is tapped from springs in the nearby hills.

Figure 12: Main Source of water

7 PROJECT IMPACTS AND THEIR MITIGATIONS MEASURES

The potential project impacts have been identified based on baseline investigations, professional judgement of the team as well as comments from the stakeholders consulted.

7.1 Impact Assessment Criteria

7.1.1 Impact description

Describing potential impacts involves an appraisal of their characteristics together with the attributes of the receiving environment. Relevant impact characteristics included whether the impact was:

a. Adverse or beneficial;
b. Direct or indirect
c. Short, medium, or long-term in duration; and permanent or temporary; and
d. Cumulative.
Consideration of the above gave a sense of the relative magnitude of each impact. The sensitivity of the receiving environment was determined based on the baseline data collected during the ESIA.

7.1.2 Impact significance for planned project activities

The purpose of impact evaluation was to assign relative significance to the predicted impacts associated with the project, and thus determine the order in which impacts were to be avoided, mitigated or compensated. By considering the combination of the magnitude of impact and the sensitivity of the receiving environment, the significance of the potential impact was derived. The determination of significance of an impact was largely subjective and primarily based on professional judgment. Key elements when assessing impacts significance were as follow:

a. Level of public concern;
b. Scientific and professional judgment;
c. Disturbance/disruption of valued ecological systems;
d. Degree of negative impact on social values and quality of life; and
e. Public perception versus the scientific/professional opinion of the risks/benefits involved.

To provide a relative significance of different impacts, it was useful to assign numerical descriptors to the impact magnitude and receptor sensitivity for each potential impact. Each impact was assigned a numerical descriptor of 1, 2, 3, or 4, equivalent to very low, low, medium or high. The significance of impact was then indicated by the product of the two numerical descriptors, with significance being described as negligible, minor, moderate or major. This was a qualitative method designed to provide a broad ranking of the different impacts of the project.
### Table 8: Determination of Impact Significance

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<tr>
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<th>Sensitivity</th>
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<th>Medium</th>
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<td>Minor</td>
<td>Moderate</td>
<td>Major</td>
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#### 7.1.3 Residual Impact Assessment

Following description of the potential impacts and assessment of their significance, mitigation measures designed to reduce the impact significance are outlined. The significance was then re-assessed, assuming application of the mitigation measures, to derive the ‘residual’ impact significance; i.e. an appraisal of the impact that was predicted to result even after mitigation had been applied.
7.2 Project Impacts

7.2.1 Positive Impacts

7.2.1.1 Growth of agribusiness investments

Availability of electricity in the rural areas will help to set up infrastructure that use power and which in turn will likely lead to improved lives. Such establishments include agro-processing facilities such as grinding mills, milk coolers etc.

![Diesel engine operated grinding mill in Anak. Some of the potential agribusinesses that could be developed when electricity is extended to the project areas](image)

7.2.1.2 Improvement in security

The project areas have some installments whose operations can be augmented especially prisons, police posts, as well as in the trading centers. The planned extension of power will provide security lighting in these establishments hence, improving the general safety in the areas. Improved security through better street lighting in the urban areas and their environs will contribute to improved security. This is a major positive impact of long-term nature.

7.2.1.3 Incentive to investment climate in the areas

The project will be an incentive to enhance investment climate in the project areas. At the moment, most investments such as in hospitality industry (hotels etc.), and a host of others, are operated through electricity from generators to run their operations which in the end translates to higher costs of the services and goods they provide.

7.2.1.4 Support to Telecommunications infrastructure operations

Support to the communications sector, telecommunication booster stations in the region operate through diesel generators on 24hour basis which makes their services to be expensive (mobile phone access, community radios, internet cafes as well as phone charging) in this fast growing sector. Diesel generators are expensive to run on a 24 hour basis while the initial capital investments on solar systems are high.

7.2.1.5 Reduced noise pollution and carbon emission

In addition, the project will lead to reduced noise pollution from a number of power generators operated to run businesses in urban areas and their environs. Due to absence of power supply, all electricity operated businesses are run by power from generators of varying sizes and capacities, which lead too heavy pollution from carbon emission in the environment.
7.2.1.6 **Improved delivery of social services**

The extension of electricity will bring about improved delivery of services by sectors such as health; especially vaccination, deliveries and surgical operations, education and general facilitation of trade activities. The operations of health facilities will very much be augmented by the planned extension of electricity to these areas. For instance, Anaka Hospital’s efficiency and effectiveness are to a large extent hampered due to electricity limitations.

![Solar panels for power in a health center in the project area](image1)
![An old diesel engine for power in Anaka Hospital. It reportedly breaks down frequently](image2)

**Figure 14**: Health facilities run on solar and diesel generators

7.2.1.7 **A stimulus to utility providers**

It envisaged that, improvement and extension of the electricity distribution grid can be a stimulus to improve operations of other utility providers especially water supply. Currently most of the trading centers in the project areas do not have piped water systems and it is therefore hoped that, better power supply can be a stimulus towards improvement of water supply system. The introduction of power would increase the opportunity to install motorized pumps to supply water to the smaller towns such as Olwiyo amongst others. This is because use motorized pumping of water by use of diesel engines is limited in its area of coverage.

7.2.1.8 **Creation of Short-Term Employment Opportunities**

The proposed project will bring about creation of jobs during the construction phase (people in the project areas will likely provide labour force especially to do casual work) to the range of about 50-100 workers. This impact is positive and would affect the local retail business owners who would mainly benefit from secondary effects of increased incomes and spending power of construction workers. The project therefore, presents a very large positive impact which should be enhanced. Creation of job opportunities, during project development, construction activities will provide a number of employment opportunities for skilled, semi-skilled and unskilled labor. Recruitment of unskilled manual labor should give preference to local people wherever feasible.

7.2.1.9 **Improved livelihoods**

Lack of reliable electricity is a disincentive towards acquiring household items such as fridges and television sets. During consultations, women welcomed the project emphasizing that, it will enable families acquire fridges which will help planning and running of their homes. At the moment, families cannot stock food items due to lack of fridges and this has implications on the livelihoods. Erratic and unreliable power supply from generators coupled with lack of qualified personnel to maintain such equipment has led many fridges and television sets to be damaged in the towns.
7.2.1.10 Incentives for small-scale enterprises

There are a number of women and youth amongst vulnerable groups operating some income generating activities such as hair and beauty salons, restaurants, ice cream selling as well as tailoring enterprises. However, due to lack of electricity, their operations are hampered and very costly and some have even abandoned the businesses due to lack of electricity for their operations. Costs of soft drinks as well as quantities sold depend mainly on the costs involved in cooling process. In that case, overhead costs are high for generator operations hence, the need for improvement in electricity supply is crucial for social transformation of social lives in the project areas.

![Image of diesel powered generator](image)

Figure 15: Some of the investments operated on diesel powered generators in Hoima

7.2.1.11 Improved social lives

A boost to the social entertainment, availability of electricity improves the choices for recreation and extends the time for recreation enabling recreation to take place at night after work. Furthermore, in the areas of the project, planned extension of electricity would support establishment of entertainment facilities such as video halls, (targeting football especially), community radios amongst others.

7.2.2 Potential Negative Impacts

7.2.2.1 Potential land take

The power distribution lines will be established along the entire length of 119km of the three project areas and therefore, the creation of RoW will take up land area. However, land uptake concerns will be minimal especially the distribution lines being restricted to the areas within the road reserves. Where the lines are routed outside the road reserve, there will be compensation for the land and resources therein.

7.2.2.2 Impacts on roadside woodlots

All tall trees and shrubs within a distance of 5m on either side of the centerline of the distribution lines (i.e. approximately 10m wide area) will be cut down to a height of not more
than 2.5m above ground. All tall trees outside the RoW, but of such height as could fall within 2m of the conductors, shall also be felled. Practically, this process of vegetation clearing is to be done in a very selective manner so as to do minimal damage to the vegetation cover and crops. This is a medium negative impact will be mitigated through compensation under the RAP that is being conducted concurrently with this ESIA.

Figure 16: Section of a roadside Eucalyptus woodlot on Hoima-Kabaare line that will likely be impacted by the project infrastructure

7.2.2.3 Occupational Safety and Health (OSH) for the workers

Typically, areas of OSH concerns in the project will arise through handling and erection of poles; installation and stringing processes. Workers vulnerable to electrical hazard must use mats, gloves, shields, flame resistant clothing, and any other protective equipment required to protect themselves from electric shock and burn.

As part of everyday work, electrical workers should always:

a. remove watches, rings, neck chains, or other current-conducting apparel;

b. wear electric-shock-resistant footwear;

c. wear hard hat or equivalent;

d. wear safety glasses with side shields;

e. wear under and outer clothing that has flame-resistance properties;

f. Linemen shall wear their safety lines while working on the poles and towers;

g. Wire hooks shall not be attached to linemen’s belts;

h. Safety straps should not be placed above the top cross arm when it is at the top of the pole;
i. Workers to have with them, a First Aid Kit on site; and
j. The contractor shall prepare and implement a Health and Safety Management plan;
k. All workers shall be routinely taken through safety drills; and
l. The contractors shall have and avail all workers emergency numbers of the Police (999) and police posts for nearby trading centers.

Figure 17: Workers in appropriate PPEs while working on one of the Uganda’s rural electrification power distribution projects

7.2.2.4 HIV/AIDS concerns

HIV/AIDS concerns are not significant in that, the workers will be from the communities who will be engaged for short sessions and reside in their homes with their spouses. In addition, the construction works will last short periods which all means interactions in the communities and workers is short to establish relations that could trigger HIV/AIDS concerns. Nonetheless, workers shall be consciously sensitised on the dangers of illicit sex behaviours. The contractor shall be required to provide condom to all workers.

7.2.2.5 Visual Impacts and Landscape

The lines will likely create visual intrusion in the countryside thereby compromising aesthetics in the areas. In some sections, the lines will traverse trading centers causing equally similar concerns. This is likely to be small-scale negative impact since the areas are not tourist destinations and more so, they are low voltage types which are relatively smaller as compared to high voltage cables that have such impacts.
7.2.2.6 Vandalism of infrastructure

Vandalism and theft of installations after construction leading to electrocution. This continues to be a major problem in a number of neighboring places in the country where vandals tend to steal transformer oils as well as some of the distribution related equipment. This impact is expected to be a small negative impact and is to be mitigated through:

a. The Project Implementation Team will sensitise the communities on the negative effects of stealing and vandalising electrical installation through radio programmes, messages through churches and mosques;

b. During construction the contractors should hire those workers who have been vetted by their local area leadership and with letters of introductions;

c. Project equipment should to be guarded during construction and all workers will be provided with identification tags to reduce intruders to working areas;

d. Identification tags to be provided to all the workers on the project sites and such identifications will remain a property of the contractor once an employee leaves employment;

e. Contractors to work closely with area local leaderships to help address security and safety at the site and the campsite.

f. Upon erection of distribution lines, the contractor should place on them warning signs with writing “kabi danger hatari”

7.2.2.7 Concerns over transformer oil spillages

Potential spillage from transformer oil that can be a source of concern in the campsites in the project. However, transformer oil is not normally stored onsite as such; it is transported to the sites for purposes of filling transformers that may have leaked off their oil during transportation, storage, or installation. Therefore, storage time of transformer oil onsite is to be limited to at least two days. It is suggested that, all transformers in the campsite should be placed on wooden platforms laid in a high-density polythene bags spread with sawdust to soak away and contain oil leakage;
7.2.2.8 Potential Contamination of Wetlands and Streams

The distribution lines will traverse a number of streams and wetlands and it is anticipated that, digging of holes for poles will generate loose soils that can pollute the waters. This is a negligible negative impact which is localized and of short-term nature. The excavated surfaces should be fully compacted and restored once the poles are erected.

7.2.2.9 Possible Impacts on PCRs

Though no PCRs were encountered in the study, a provision for Chance Finds has been proposed in the Project Brief in the Appendix III.

7.2.2.10 Noise from Construction Crew and Traffic

The noise levels in most parts of the proposed project areas are very low, typical of a village setting. In addition, the traffic volumes on the roads in the project areas are also low. Construction crew may not be that large and may not introduce many vehicles in the project area. The noise levels are not likely going increase substantially. This impact is temporal and small. Most of the construction activities will be carried out by manual labor with few trucks delivering labor and materials to the sites. The works will be implemented during daytime to minimize impacting on peoples sleep.

7.2.2.11 Impacts relating to power distribution lines maintenance

Once constructed there will be need for routine maintenance of the power lines in terms of tree trimming in the RoW. If this exercise is not well coordinated, it will generate impacts relating to interference with road traffic flow, electrocutions and potential conflicts with the communities on issues regarding crop loss. Resulting conflicts shall be handled in line with the project’s Grievance Redress Mechanism as detailed out in annex V. This is to be mitigated through coordinating with switch control units to ensure power supply is turned off before start of line maintenance, working the traffic police to control traffic along the roads and:

a. The public shall be protected against hazards of tree trimming along the roads by placing danger signs & signals;
b. Before climbing a tree, the trimmer should look it over carefully to decide how best to climb it;
c. The limbs should be carefully inspected to make sure that they could hold the trimmers weight;
d. Before cutting down the tree, power supply should have been cut off to avoid electrocution;
e. Where there is danger that the tree may be strike and damage property, the trimmers should employ block and tackle system to control the direction of fall; and
f. All tree trimmings and branches should be cleared off the road by the crew.

7.2.2.12 Impacts due to soil erosion

The risk of erosion would be higher where there is an increase in land slope. This could occur in the area where the hills are steep. The Hoima project area is more hilly compared to the other project areas with a higher potential for erosion should the top soil be exposed. The nature of the construction will not lead to serious excavation such that little soil will be exposed. Clearing of vegetation to make way for the ROW will also be limited to cutting grass/ vegetation above ground and not by excavation. Subsequently erosion due to excavations will be minimal or nonexistent. Nevertheless it is recommended that any areas which will be exposed for any reason will be rehabilitated as soon as possible to prevent possible soil erosion. Rehabilitation
will be by replanting the area, or returning the top soil so that grass can naturally grow. There will be some areas where equipment is kept and the grass may be stressed leading to erosion after the works. Such areas will also be replanted after the works so that erosion and degradation are controlled.

7.2.2.13 Land take and loss of crops

The 33kv Distribution line will mainly pass along the current road alignment and within the road reserves for the most part. In a few cases the Line will pass along people’s gardens especially in RGC where the line will pass behind the RGC. Away from the main road, it may not be possible to strictly follow the road reserve since the feeder roads have many sharp corners which would be difficult to follow with a distribution line. For the most part, there will be no land take and the project is not mandated to take land. However trees, perennial crops and other crops like fruit trees which fall within the ROW will be removed leading to losses to the individuals affected. This will be mitigated through ensuring that the alignment of the project is mainly along the road reserve. Further, any crops destroyed will be valued and compensated.

7.2.2.14 Population influx

The workforce at the project during the peak of construction will be composed of a limited number of skilled workers with about twice that number for non-skilled workers. Maximum workforce will be at most 30 people. The non-skilled workers are likely to be recruited from the local neighborhood. On the other hand the total workforce will not be sedentary in one place as they will move along the line as they progress. This impact therefore is likely to be minimal as there will be no external people working at the site for a prolonged length of time. However, this will be mitigated by: The Project Management will closely work with leadership especially the LCs to hire local people to do most of the casual jobs at the project in response to numerous calls by stakeholders; Identification tags / uniform will be provided to all the workers working on the project sites and such identifications will be property of the Project management and may be withdrawn from workers when not engaged in the project work, and ; Good public relations will be maintained between the local community, the Local leadership and the Developer;

7.2.2.15 Impacts due dust pollution

Due to the nature of distribution lines which use wooden poles, the excavations will be minimal. However there will be a slight increase in the movement of vehicles used in ferrying construction materials such as poles, distribution wires (conductors) and transformers which may impact on people living close to the construction corridor /zone. The time of study coincided with the onset of the rains so that the dust levels were low. However from the Climatological considerations and the nature of the soils, the roads can be dusty during dry seasons. During the dry season, vehicles transporting materials as well as the construction workers are likely to raise considerable amounts of dust. The vehicle fleet in the project area is low apart from commuter vehicles and Motor cycles. During the harvest season however, more vehicles may be recorded as they go deep into the villages in search of produce. Such vehicles can lead to considerable dust along the road, such that dust raised by construction traffic will be additional. Soil erosion may also lead to particulate loading in some water sources thereby causing pollution. Although these impacts will be moderate and of a short term nature they will need to be mitigated against. This will be mitigated in a number of ways that include:

- Promoting dust abatement measures such as control of construction traffic speed limits;
- Maintain and inspect all equipment and machinery to ensure that they are in good working order and do not produce excessive fumes and noise,
- Maintain safety measures in order to ensure the health and well-being of the workers.
- Vehicles transporting materials will be required to observe speed limits especially within population centres in order to reduce dust levels;
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**Positive Impacts**

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**Negative Impacts**
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By and large, the study team considered the project effect on the socio-economic, physical and biological baseline conditions during its phases. The potential impacts and the suggested mitigation measures of the proposed development are described in detail as follows below;

7.3 Environmental and Social Management Plan

At this stage, due to the modest scale of anticipated negative impacts relating to this power distribution projects and by generally keeping to non-sensitive and non-critical areas the construction and operational impacts will be manageable. It is equally envisaged that, no insurmountable impacts are predicted provided the ESMP is implemented to its full extent and required in the contract documents.

In order to ensure that the contractors and the supervision team/Construction Supervision Consultant (CSC) are fully aware of the implications of the ESMP and to ensure compliance, it is recommended that environmental measures be costed separately in the tender documentation and that payment milestones are linked to environmental performance, via carrying out of the ESMP implementation and associated reporting.

7.4 Chance Finds Procedures

In the event of a chance find, the following procedures shall be followed;

a. Stop the construction activities in the area of the chance find;
b. Delineate the discovered site or area;
c. Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities and the Directorate of Museums and Monuments take over;
d. Notify the supervisory Engineer who in turn will notify the responsible local authorities and the Directorate of Museums and Monuments under the Ministry of Tourism, Wildlife and Antiquities (within 24 hours or less);
e. The Directorate of Museums and Monuments would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archeologists of the Directorate of Museums and Monuments (within 24 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
f. Decisions on how to handle the finding shall be taken by the Directorate of Museums and Monuments. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage;
g. Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the Directorate of Museums and Monuments; and
h. Construction work could resume only after permission is given from the responsible local authorities and the Directorate of Museums and Monuments concerning safeguard of the heritage;
i. These procedures must be referred to as standard provisions in construction contracts, when applicable. During project supervision, the Site Engineer shall monitor the above regulations relating to the treatment of any chance find encountered are observed;

j. Construction work will resume only after authorization is given by the responsible local authorities and the National Museum concerning the safeguard of the heritage; and

k. Relevant findings will be recorded in World Bank Implementation Supervision Reports (ISRs), and Implementation Completion Reports (ICRs) will assess the overall effectiveness of the project’s cultural property mitigation, management, and activities, as appropriate.

7.5 Grievance Redress Mechanism

The goal of this mechanism is to ensure project’s affected persons’ satisfaction with implementation project, and in effect provide for on the ground monitoring by affected persons of the adequate implementation of the project. This GRM handles projects physical impacts as well as some social aspects of the project.

The main objectives of the grievance procedure are to provide a mechanism to ensure that the environmental and social aspects of the project have been implemented accurately and fairly, alleviating any adverse effects on PAPs, to mediate conflict and to avoid lengthy litigation that is unfair to PAPs and can delay the project implementation. It also provides people who have objections or concerns about the project with an accessible and known procedure through which to raise their objections and have them resolved. Steps of grievance redress for this Project are presented in appendix III below. In summary, a complaint shall be received by a Contractor’s designated Grievance Officer (GO) who will process it and try to resolve it while engaging the local leadership. If GO fails, then the complaints can be escalated by the GO to higher levels like higher local governments and REA. If it cannot be resolved at this stage, then complaint can be escalated to courts of law who are the final party in complaint resolution.

The Project Affected Person can also use the World Bank’s Grievance Redress Service (GRS) that facilitates Bank’s review and resolution of grievances (Appendix IV). In the GRS, the PAP can directly register his/her complaint with the bank who then reviews and facilitates complaint resolution with the project’s implementation partner.
### Table 10: Environmental and Social Management Plan

<table>
<thead>
<tr>
<th>No.</th>
<th>Environmental/Social Impact</th>
<th>Location</th>
<th>Mitigation/Enhancement Measures</th>
<th>Timing</th>
<th>Monitoring indicator</th>
<th>Responsible Organization</th>
<th>Monitoring/Follow Up</th>
<th>Budget estimate for mitigation (UgX 000)</th>
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<tr>
<td><strong>Biological Environment</strong></td>
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</table>
| 01. | Loss of vegetation through clearance of the way leaves | Along the entire line route | • Construct the line along the road reserve as much as possible  
• Compensate for the trees cut  
• Alignment of structures to avoid areas with dense vegetation. However, most of the vegetation encountered along the entire line route is of low ecological value. | Construction and during O&M | • Amount compensated  
• Line alignment along the road reserve | REA/contractor | District Environment Officers, REA, Supervising Consultant, and the Contractor, NEMA, WMD | 10,000 |
| 02  | Loss of wetland vegetation due to earthworks. | In sections with wetland areas. | • Minimize reclamation to only the pole foundation.  
• Use H/M membered structures to span over the wetlands | Construction and during O&M | • Number of depositions if any;  
• Existence of poles in drains; | REA | District Environment Officers, REA, Supervising Consultants, Contractor, NEMA, WMD | Covered under Item 1 above. |
<p>| | | | | | | | | |
|     |                             |          |                                 |        |                      |                          |                      |                                         |
| <strong>Physical Environment</strong> |                             |          |                                 |        |                      |                          |                      |                                         |</p>
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<th>Budget estimate for mitigation (UgX)</th>
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</thead>
<tbody>
<tr>
<td>03.</td>
<td>Impacts on land use and agriculture</td>
<td>Entire length of the line</td>
<td>• RAP is being prepared to comprehensively deal with this concern.</td>
<td>During construction</td>
<td>• Actual land taken • No. of Complaints from PAP</td>
<td>REA to monitor grievances in the course of the project.</td>
<td>District Environment Officers, REA Environmental Specialist and Supervising Engineers, Consultants, Contractor, NEMA,</td>
<td>300,000</td>
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<tr>
<td>04.</td>
<td>Soil erosion</td>
<td>Pole foundation points and access roads</td>
<td>• Ensure vegetation clearing is minimized; • Minimize disturbance of wetland and water logged areas by using long-spans of power line by using H and/or M member structures Restoration of the opened up areas.</td>
<td>Construction stage</td>
<td>• Number of silted streams and wetlands along the line • Number of depositions if any; • Number of restored areas</td>
<td>REA and contractor</td>
<td>District Environment Officers, REA Environmental Specialist and Supervising Engineers, Consultants, Contractor, NEMA,</td>
<td>3,000</td>
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</table>
| 05. | Waste Management issues | Assembly or storage yard for the contractors and along the proposed line | Develop waste management plan for all the types of wastes generated

Prohibition of dumping of any contaminating material products into the environment/onto the ground, including waste oils, in accordance with NEMA regulations; and

Contractors’ trucks be serviced and maintained outside the project site and at gazette places to avoid instances of managing waste oils and lubricants and spillages.

Contracting NEMA approved solid waste handlers particularly hazardous waste.

Work sites are cleaned up after works to pick any off cuts for poles, wires and any waste materials. | Construction stage | Waste Management Plans

- No of bins at the storage site
- Presence of sanitation facilities

WMP implementation reports by the contractors

Records of inspection of vehicles and other equipment | REA/Contractor | District Environment Officers, REA Environmental Specialist and Supervising Engineers, Consultants, Contractor, NEMA. | 2,000 |
<table>
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<tr>
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<th>Monitoring/Follow Up</th>
<th>Budget estimate for mitigation UgX (000)</th>
</tr>
</thead>
</table>
| 06. | Water Pollution             | Streams/wetlands crossings, and the storage yard | - Guard against contamination of the streams by adhering to proper waste management;  
    - Proper compaction and restoration of poles holes after erection of poles.  
    - Provide adequate and appropriate sanitary facilities | During Construction | Water quality of the water sources along the lines  
    Presence of sanitation facilities | REA and contractor | REA, NEMA, Respective District Local Governments, Contractors, Supervising consultant | 2,000 |
| 07. | Noise nuisance              | Settlement areas/trading centers in the zone of influence along the distribution line | - Restriction of the working condition from 8.00am to 5.00pm; and  
    - Regular services of Vehicles and other equipment; and  
    - Use of ear muffs especially heavy equipment. | During Construction and Operation | Availability of PPEs  
    Complaints from the community  
    PPEs distribution and usage | Contractor | REA, NEMA, Respective District Local Governments, Contractors, Supervising Consultant | Covered under costs in Item 11 in this Table |
| 08. | Dust Emission               | Throughout the entire line | Use well and routinely maintained equipment;  
    Provide the workers with protective gears. | Throughout the construction process | Availability of PPEs  
    Complaints from the community | Contractor | REA, NEMA, Respective District Local Governments, Contractors, Supervising Consultant | Covered under costs in Item 11 in this Table |
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</table>
| 09. | Impact on social life especially issues of HIV/AIDS | Trading centers and Settlements | - Sensitization of the communities and the construction crew about prevention and management of HIV/AIDS.  
- Provision of condoms | Throughout the project | No of sensitisation messages given out;  
Number of condoms distributed | Contractor/REA, NEMA, Respective District Local Governments, Contractors, Supervising Consultant | 2,000 |
| 10. | Occupational Safety and Health | Entire length of the power line. | - Will largely involve provision of PPEs to the workers.  
- Develop and implement safety Management Plans  
- Sensitization of workers | During construction and O&M | Safety Management Plans  
Availability of PPEs  
Number of Health and Safety trainings for workers  
Availability of adequate signage at the sites | Contractor/REA, NEMA, Respective District Local Governments, Contractors, Supervising Consultant | 15,000 |
<table>
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<tr>
<th>No.</th>
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<th>Responsible Organization</th>
<th>Monitoring/Follow Up</th>
<th>Budget estimate for mitigation (UgX)</th>
</tr>
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</table>
| 11. | Traffic Accidents           | Entire line | • Notifying local communities through their Local Councils regarding traffic aspects of the project during project implementation.  
• Recruit traffic guides to control of traffic during works if necessary;  
• Put up sign posts to warn road users when trucks with project equipment are parked on the roadsides.  
• Put in place measures to control traffic speeds | During construction and to a smaller extent, O&M | Availability of adequate and appropriate signage at the sites  
Number of speed control measures at the construction sites  
Availability of traffic guides where necessary at the construction sites | Contractor | REA, NEMA, Respective District Local Governments, Contractors, Supervising Consultant | 2,000 |
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<tr>
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<th>Budget estimate for mitigation UgX (000)</th>
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<tr>
<td>12.</td>
<td>Impact on Human Settlements</td>
<td></td>
<td>• Sensitization of communities on electricity dangers and associated risks; • Ensure that houses and structures are not impacted by passing the line through the road reserve; • In RGC pass distribution line behind linear structures; • Sensitize communities on dangers of high voltage; • Poles to be guided away from buildings or graves;</td>
<td>During construction</td>
<td>Number of/frequency awareness/sensitization campaigns conducted • No of complaints recorded</td>
<td>Contractor/REA/Operator</td>
<td>REA, NEMA, Respective District Local Governments, Contractors, Supervising Consultant</td>
<td>5,000</td>
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<td>No.</td>
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| 13. | Potential for electrocution in case of line breakages | Along the project line | • Sensitize communities about the dangers of exposed high voltage live wires;  
• Provide prominent warning signs at all installations to warn the intending intruders from touching the lines or fixtures.  
• Sensitize Communities to report a sagging wire or one that has fallen to the ground  
• Vigilance of Maintenance personnel essential; | During operation | • Frequency of safety sensitisation  
• Warning signs at installations | Operator/REA | REA, NEMA, Respective District Local Governments, Operators | Costs covered under Item 13 in this Table |
<table>
<thead>
<tr>
<th></th>
<th>Hazardous materials and waste</th>
<th>Along the project line</th>
<th>• REA will adhere to their stated procurement guidelines (as stated above) ensuring that all their transformers shall conform to latest edition of appropriate EC specifications and/or other recognized International Standards in particular:</th>
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<td></td>
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<td>• Do not accept PCB as part of the working materials; otherwise replace them environmentally acceptable insulators.</td>
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<td>• Pre-treat poles at a designated facility to ensure chemical fixation and prevent leaching into the soil among others.</td>
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<td>During planning and construction stages</td>
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<td>• Clear labels/instructions on hazardous materials</td>
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<td>• Hazardous waste management plans developed and implemented</td>
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<td>REA and the Contractor</td>
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<td>REA, NEMA, Respective District Local Governments, Contractors, Supervising Consultant</td>
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<td></td>
<td>Population influx</td>
<td>Along the project line</td>
<td>• Working with LC leadership, hire local people to do most of the casual jobs;</td>
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<td>The whole project lifecycle</td>
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<td>No of local people hired;</td>
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<td>Contractor and REA</td>
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<td>REA, NEMA, Respective District Local Governments, Contractors,</td>
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<td>Covered under costs in Item 13 in this Table</td>
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<td>Mitigation/Enhancement Measures</td>
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<td>• Provide project specific identification tags/uniform to all workers on site;</td>
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<td>• Maintain Good public relations with the communities</td>
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<tr>
<td>16.</td>
<td>Air Quality (Increased Dust pollution)</td>
<td>Entire power line</td>
<td>• Limit construction traffic speed;</td>
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<td></td>
<td></td>
<td></td>
<td>• Keep all equipment and machinery in good working order to limit excessive fumes and noise,</td>
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<td></td>
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<td></td>
<td>• Maintain safety measures (PPE) for the health and well-being of the workers.</td>
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<td></td>
<td>• Ensure workers use full PPE.</td>
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<td>During construction</td>
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<td>No.</td>
<td>Environmental/Social Impact</td>
<td>Location</td>
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| 17. | Growth of agribusiness investments | Entire power line | • Prioritize agribusiness investments in the area for connection | During operation | Number of existing agribusiness investments connected to the grid  
Number of new agribusiness investments coming up in the connected areas | REA,/Contract or/Operator | REA, District Local Governments |
<p>| 18. | Improvement in security | Entire project area | • Urban authorities should plan for street lights along these lines | During operation | Number of urban areas with street lights | Respective urban authorities/Operator, | REA, Respective urban authorities |
| 19. | Incentive to investment climate in the areas | Entire project area | • Extend the lines to more area beyond the roads so that more people can get connected | During operation | Number of business premises connected to the grid | REA, Operator | REA, Business community in the project areas |
| 20. | Support to Telecommunications infrastructure operations | Entire project area | • Extend the lines to area beyond the roads but close to telecommunication masts | During operation | Number of telecommunication masts connected | Operator/Telecommunication companies, | REA/Uganda Communications Commission |</p>
<table>
<thead>
<tr>
<th>No.</th>
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<th>Budget estimate for mitigation (UgX)</th>
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<tbody>
<tr>
<td>21.</td>
<td>Reduced noise pollution and carbon emission</td>
<td>Entire project area</td>
<td>• Encourage communities to use clean energy as opposed to diesel run generators</td>
<td>During operation</td>
<td>Number of awareness campaigns targeting productive use of power Reduced occurrence of lung related diseases</td>
<td>Contractor</td>
<td>REA/NEMA</td>
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<td>22.</td>
<td>Improved delivery of social services</td>
<td>Entire project area</td>
<td>• Prioritize connection of health centers, schools and government installations</td>
<td>During operation</td>
<td>Number of health centers, schools and government installations connected to the grid</td>
<td>Operator/Ministry of Education/Ministry of Health/Ministry of Local Government</td>
<td>REA, Ministry of Health, Ministry of Education and Sports, Ministry of Local Government and REA</td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>A stimulus to utility providers</td>
<td>Entire project area</td>
<td>• Prioritize connection of potential economic enterprises</td>
<td>During operation</td>
<td>Number of business premises connected to the grid</td>
<td>REA, Operator</td>
<td>REA, Business community in the project areas</td>
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<tr>
<td>24.</td>
<td>Creation of Short-Term Employment Opportunities</td>
<td>Entire project area</td>
<td>• Ensure that local communities members are recruited for the semi-skilled and unskilled tasks</td>
<td>During the construction phase</td>
<td>Number of local community members employed on the project</td>
<td>Contractor</td>
<td>REA, Contractor, Local Government Authorities</td>
<td></td>
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<tr>
<td>No.</td>
<td>Environmental/Social Impact</td>
<td>Location</td>
<td>Mitigation/Enhancement Measures</td>
<td>Timing</td>
<td>Monitoring indicator</td>
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<tr>
<td>25.</td>
<td>Incentives for small-scale enterprises(SMEs)</td>
<td>Entire project area</td>
<td>• Prioritize connection of small scale enterprises in the project areas</td>
<td>During construction and operation</td>
<td>Number of SME’s connected to the grid</td>
<td>REA, Operator</td>
<td>REA, Business community in the project areas</td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>Improved social lives</td>
<td>Entire project area</td>
<td>• Extend the lines to both homesteads and social entertainment facilities</td>
<td>During operation</td>
<td>Number of recreation centers connected to the grid</td>
<td>REA, Service Territory Providers</td>
<td>REA, Business community in the project areas</td>
<td></td>
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**TOTAL ESMP COST**

343,000
7.6 ESMP Implementation Schedule and Reporting
Measures outlined in the ESMP will be implemented under the overall project implementation schedule as all most of the environmental and social interventions will be incorporated into the project design and implementation. The reporting on the implementation process and progress of the ESMP provisions will be done in line with the overall project framework and any environmental and social aspects requiring actions will be addressed by REA.

7.7 Environmental Monitoring Plan
The overall objective of environmental and social monitoring is to ensure that mitigation measures are implemented and are effective. Environmental and social monitoring will also enable response to new and developing issues of concern during project implementation and therefore, it will ensure that, project activities comply and adhere to environmental provisions and standard specifications of NEMA. The responsibility for the environmental monitoring will largely lie with REA and NEMA. The involvement of other stakeholders in monitoring of compliance of the project with other aspects such gender and HIV/AIDS is not much anticipated due to short term nature of the construction phase of the project.

Some of the key monitoring indicators of focus will include amongst others:

a. Traffic control measures put in place during construction phase of the project;
b. Number of trees planted;
c. Number of sensitization meetings held for the community through radio on aspects of the project etc.;
d. Safety aspects on the project i.e. provision of PPEs for the workers; and
e. HIV/AIDS sensitisation meetings held.

In addition, the Monitoring Plan has been designed based on the project cycle. During the pre-construction period, the monitoring activities will focus on:

a. Checking the contractor’s bidding documents, particularly to ensure that all necessary environmental requirements have been included; and
b. Checking that the contract documents’ references to environmental mitigation measures requirements have been incorporated as part of contractor’s assignment and making sure that any advance works are carried out in good time. Where detailed design is required (e.g. for power distribution lines route survey and avoidance of other resources) the inclusion and checking of designs must be carried out.

During the construction period, the monitoring activities will focus on ensuring that environmental mitigation measures are implemented, and some performance indicators will be monitored to record environmental performance and to guide any remedial action to address unexpected impacts. Monitoring activities during project operation will focus on recording environmental performance and proposing remedial actions to address unexpected impacts.
8 INSTITUTIONAL ARRANGEMENTS IN IMPLEMENTATION OF THE ESMP

In order to facilitate the implementation of the ESMP, during the preparation for the construction phase REA must prescribe in the contract documents that the contractors shall co-operate with all stakeholders in the mitigation of impacts. Furthermore, the contractor must be primed through the contract documentation and ready to implement all the mitigation measures. The ESMP should be reviewed by the supervision team / construction supervision consultant (CSC) and approved before any construction activity is initiated in order to take account of any subsequent changes and fine tuning of the proposals. The respective Local Governments, NEMA and its lead agencies shall come in the monitoring of the ESMP implementation.

In order to achieve good compliance with environmental assessment principles, the staff of Environmental Unit in REA must be actively involved, prior to the outset of the implementation design stage, to ensure compliance and full implementation of the ESMP.

The environmental staff in REA will amongst others:

- work to ensure all statutory environmental submissions under the National Environment Act and other environmentally related legislation are thoroughly implemented;
- ensure all environmental requirements and mitigation measures in this Project Brief are included in the contract bidding documents;
- work with ECG to execute any additional ESMP update requirements needed due to fine tuning of the sub-projects and that environmental performance targets are included in the contracts prior to project commencement;
- follow up to ensure that, all environmental and social requirements and mitigation measures from this Project Brief and environmental performance criteria are incorporated in the project contracts and that the ESMP is effectively implemented;
- work with the construction supervising consultant (CSC) and contractors to manage and monitor the implementation of the project ESMP; and
- work with management to ensure that the Environmental and Social Management Framework (ESMF) for Energy for Rural Transformation 2 (ERT3) as well the provisions in the Project Brief are fully applied, adequately resourced and implemented.
9 CONCLUSION

The Project Brief has assessed the overall acceptability of environmental and social impacts likely to arise as a result of the construction and operation of the distribution lines extension in the project areas. The line routes suggested are the most preferable routes taking into consideration the environmental, socio-economic and engineering aspects of the project.

The project is likely to generate some environmental and social impacts both during construction and operation. During the construction phase, the environmental impacts expected from the project include disturbance to fauna and flora, construction wastes disposal, traffic movement, increase in noise levels and social impacts mainly from engagement of land and loss of crop. During the operation phase, the impacts will include social impacts of restricted activities within the ROW. An Environmental and Social Management Plan has been prepared which describes the implementation mechanism for the recommended mitigation measures during the construction and operation phases to verify overall project performance. The total costs for implementation of the Environmental and Social Management Plan for this project is Three Hundred and Forty Three Million (343,000,000) Uganda Shillings.

This Project Brief therefore recommends that the project should precede provided the suggested mitigations in the study are adhered to and a follow up of recommendations on management actions is made by REA.
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11. The National Gender Policy, 1997, Ministry of Gender, Labour and Social Development, Kampala-Uganda
12. The National HIV/AIDS Policy, 2004;
15. The National Forestry Policy, 2001
17. The National Environment Act, Cap 153;
18. The Public Health Act, 1964
19. The Land Act, Cap 227;
20. The Water Act, Cap 152;
21. The Occupational Safety and Health Act, 2006;
22. The National Forestry and Tree Planting Act, 2003;
23. The National Environment (Environment Impact Assessment) Regulations;
24. The National Environment (Audit) Regulations, 2006 (12/2006);and
26. UBOS Sub-National Projections Report 2013
27. Uganda Demographic Health Survey 2011, Uganda Bureau of Statistics
## APPENDICES

### Appendix I: Summary of issues in the field Consultations

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Designation/Title</th>
<th>Remarks</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nyangoma Joselyn</td>
<td>DNRO/SEO-Hoima</td>
<td>The proposed rural electrification project should consider the following:</td>
<td>A RAP is being prepared for the project, all compensation issues shall be handled by the RAP team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Homes to be affected by the project</td>
<td>Contractor’s workers shall be sensitized on how to relate with communities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Sensitization of the community before project implementation</td>
<td>Contractor shall be encouraged to recruit from within the communities where works are being conducted.</td>
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<tr>
<td></td>
<td></td>
<td>- Compensation of the affected persons</td>
<td>Camps shall be avoided where necessary</td>
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<tr>
<td></td>
<td></td>
<td>- At the substations; Landownership, noise and pollution due to oils</td>
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<tr>
<td></td>
<td></td>
<td>- The established camps; Social issues like marrying off young girls, divorce and diseases need to be well planned for.</td>
<td></td>
</tr>
<tr>
<td>Nsita Gertrude</td>
<td>Environment Officer-Hoima</td>
<td>- Digging of holes for pole placements should be refilled and not left empty to avoid injury</td>
<td>Contractor shall ensure proper compaction and restoration of poles holes after erection of poles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Avoid cutting community trees without compensation as Hydromax power project did</td>
<td>RAP has been prepared</td>
</tr>
<tr>
<td>Nyangoma Alice</td>
<td>Resident Majengo TC</td>
<td>- When power gets to the area how will it be distributed? Will it be distributed like the one in Buseruka?</td>
<td>UMEME shall be responsible for RAP has been prepared</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If power passes through your land are compensated or not?</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- During the oil refinery project they were poorly compensated. How will they be appropriately compensated?</td>
<td></td>
</tr>
<tr>
<td>Nyampura Mary</td>
<td>Resident Majengo TC</td>
<td>- Does someone enter power in her home for free?</td>
<td>You will have to apply and pay all the necessary dues</td>
</tr>
<tr>
<td>Irumba Sylvester</td>
<td>Chairman Majengo LC1</td>
<td>- The proposed power to connect the Trading center is a prepaid meter of Yaka. How long can it last while cooking beans?</td>
<td>UMEME shall be responsible for connecting individual households and shall decide whether to install pre-paid meters or not.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- When someone wants electricity about 1km from</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Role</td>
<td>Question</td>
<td>Response</td>
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</tr>
<tr>
<td>Asiimwe Ismail</td>
<td>Resident Majengo TC</td>
<td>- When power enters his home and a fault occurs burning it who pays? Is it him or the electricity company?</td>
<td>Houses shall be inspected by competent electricians before being connected to the grid, a certificate shall be issued before UMEME can connect you</td>
</tr>
<tr>
<td>Tumwine Enock</td>
<td>Resident Kyapaloni TC</td>
<td>- Kyapaloni TC residents have been compensated and told to relocate to give way to the oil refinery project. So the power distribution project will not find them in this area.</td>
<td>RAP has been prepared</td>
</tr>
<tr>
<td>Ozehe Lawrence</td>
<td>Resident Kyapaloni TC</td>
<td>- What is the procedure for getting electricity into a homestead?</td>
<td>Usual procedure of shall be applied. First secure a certificate of wiring and then apply to the distributor</td>
</tr>
<tr>
<td>Kabagambe Bosco</td>
<td>Resident Kigaaga TC</td>
<td>- What happens when the electric pole is to pass through his house?</td>
<td>The pole are aligned along the road and mostly within the road reserve. Chances of locating a pole within a house are minimal</td>
</tr>
<tr>
<td>Birimumaso Francis</td>
<td>Resident Kigaaga TC</td>
<td>- How many transformers are allocated to the area?</td>
<td>This will depend on the distributor and the number of consumers</td>
</tr>
<tr>
<td>Irumba Jacent</td>
<td>Councilor, Kigaaga TC</td>
<td>- Welcomes the project in the area and observes that they are tired of using paraffin lights due expenses and fumes.</td>
<td>RAP has been prepared</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Will the electricity project compensate only those with property on land or even those without property but only bare land?</td>
<td>More sensitizations will be conducted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Does the project provide sensitization workshops before power installation in people’s homes as it is dangerous?</td>
<td></td>
</tr>
<tr>
<td>Byabasole Amos</td>
<td>Resident, Kigaaga TC</td>
<td>- Welcomes the government program of rural electrification</td>
<td>Local labour force shall be utilized for the semi-skilled and unskilled force</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Does he get compensated for the poles that traverse his land?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Where is the sourcing of labour for the power project going to be got from?</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Position</td>
<td>Questions</td>
<td>Remarks</td>
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</tr>
<tr>
<td>Turyatemb Deodenus</td>
<td>Resident Kigaaga TC</td>
<td>- There are both permanent and semi-permanent houses. Is the power proposed for only those which are permanent?</td>
<td>Transformers are a must, so that power can be stepped up and down And distributed to the various consumers as per their needs</td>
</tr>
</tbody>
</table>
| Irumba Ronald      | Resident Kanywabarogo TC        | - People in the community are constructing near the roads. What advice are we giving them?  
- Where is the power coming from and ending up. Is there a provision for transformers? | RAP has been prepared |
| Kasimba Charles    | Chairman Kanywabarogo LC I      | - Welcomes the project in the area on behalf of the community and requests for community sensitization on electricity usage. | More sensitizations will be conducted |
| Muhwezi Julius     | Resident Kanywabarogo TC        | - Does the project have a provision for transformers in their trading center? | Transformers are a must, so that power can be stepped up and down And distributed to the various consumers as per their needs |
| Besigomwe Leodinas | Resident Kanywabarogo TC        | - What happens when the proposed extension power line is to pass through a public place like a market or church? | The pole are aligned along the road and mostly within the road reserve. Chances of locating a pole within in such places are minimal |
| Bashabomwe Deus    | Councilor Kanywabarogo TC       | - Some area residents may prefer power lines not to pass through their land and opt for courts of law. What does the distribution company do?  
- When is the project to start operation?  
- Sometimes power passes Trading Centers without the community benefitting like the line going to Bugambe factory. How can they be assured that this is not going to be their fate? | The proposed distribution line is intended to serve the communities along the line and not just an institution like the one to Bugambe factory. |
| Nuwagaba Gerald    | Resident Kanywabarogo           | - Who pays for the electricity bills? | Individual consumers shall pay their own bill |
| Atumanya Ronald    | Resident Kidoma TC              | - Will the proposed power extension project pass only the road side and not enter villages?  
- Do you propose to have Yaka meter service fee shops close to the people? | The distribution company shall decide where to extend to the line depending on the demand and shall also decide whether to install prepaid meters or not |
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Community</th>
<th>Questions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutabazi Fred</td>
<td>Chairman</td>
<td>Kidoma LC 1</td>
<td>• If power passes peoples properties will they be compensated and how?</td>
<td>RAP has been prepared</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Power will pass via big support lines. How will the community access it?</td>
<td>Community members shall be given priority to work on the project especially during construction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• When a person has eucalyptus trees for electric poles who can he approach their sale?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The project had better consider seeking community labour during project implementation.</td>
<td></td>
</tr>
<tr>
<td>Musinguzi Robert</td>
<td>Resident</td>
<td>Kidoma</td>
<td>• Is power for everyone or there are specific houses it is meant for?</td>
<td>The entire community is entitled to be connected provided they have properly wired their houses and duly applied</td>
</tr>
<tr>
<td>Muzinya David</td>
<td>Resident</td>
<td>Kidoma</td>
<td>• How does one get power into his home?</td>
<td>Usual procedure of shall be applied. First secure a certificate of wiring and then apply to the distributor</td>
</tr>
<tr>
<td>Byakagaba Augustine</td>
<td>Resident</td>
<td>Kidoma</td>
<td>• Is the proposed power supply line a three or single phase line for home use?</td>
<td>Both</td>
</tr>
<tr>
<td>Rutaremwa Fred</td>
<td>Mayor</td>
<td>Kidoma</td>
<td>• It is good power is finally coming to their area but how is the community going to benefit?</td>
<td>They shall be connected to the grid</td>
</tr>
<tr>
<td>Bihugyeho Silvano</td>
<td>Resident</td>
<td>Kidoma</td>
<td>• People pay bills for electricity but why does the company switch it off?</td>
<td>Its shall not be expensive in the long run</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The power project had better come soon since they have cut trees for a long time without electricity.</td>
<td></td>
</tr>
<tr>
<td>Kyalikunda Everce</td>
<td>Resident</td>
<td>Butimba</td>
<td>• When is the construction of the power line beginning?</td>
<td>The entire community is entitled to be connected provided they have properly wired their houses and duly applied</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Is power meant for only houses near the roads?</td>
<td></td>
</tr>
<tr>
<td>Nkwasibwe Tom</td>
<td>Resident</td>
<td>Butimba</td>
<td>• The community expects to benefit from the project as it wants to start small scale projects</td>
<td>Noted</td>
</tr>
<tr>
<td>Arora Alex</td>
<td>Resident</td>
<td>Butimba</td>
<td>• There are community members who have poorly constructed houses. Will these too have access to power?</td>
<td>Only properly wired their houses shall apply</td>
</tr>
<tr>
<td>Mukidi Christopher</td>
<td>Mayor</td>
<td>Butimba</td>
<td>• Welcomes the Rural electrification projects and makes an observation that power wherever it exists is quite expensive.</td>
<td>Communities shall appreciate the usefulness of power with time and shall willingly pay for it</td>
</tr>
<tr>
<td>Name</td>
<td>Location</td>
<td>Comments</td>
<td></td>
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</tr>
<tr>
<td>Mataata Nelson</td>
<td>Kabaale</td>
<td>• There is need to train the community on power.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beyendela Moses</td>
<td>Kabaale</td>
<td>• Hopes that this project is going to be fair where compensation of individuals arises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinene Robert</td>
<td>Kabaale</td>
<td>• How will the people get power into their homes from the main grid?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mugisha Shadrack</td>
<td>Kabaale</td>
<td>• In instances where an electric pole collapses on someone’s property and damages it does he get compensated?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owingi Ibrahim</td>
<td>Kabaale</td>
<td>• Should the people from the community expect work on this project?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isingoma Wilberforce</td>
<td>Kiziranfumbi</td>
<td>• We anticipate a reduction in power the moment it is extended to more rural areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wadooli Ismah</td>
<td>Kiziranfumbi</td>
<td>• He believes that power line passing below someone’s house have health concerns associated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kisembo Susan</td>
<td>Kiziranfumbi</td>
<td>• Wonders whether people in rural areas will afford for the proposed power project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lukwiya Jackson</td>
<td>Olwiyo</td>
<td>• Welcomes the rural electrification project in the area</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Notes that the project is timely as they would love to open up small industries in the area and boost businesses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mwaka Joe</td>
<td>Olwiyo</td>
<td>• How long is going to take for the rural electrification project to start?</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• How is power going to be extended from the trading center to the villages?</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• When a power pole next to your home breaks destroying the home who comes to rescue the situation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Komakech Geoffrey</td>
<td>Olwiyo</td>
<td>• There is need for the electricity board to find time and educate the community on power use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ocitti Richard</td>
<td>Olwiyo</td>
<td>• He is certain that the moment power is extended</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Location</td>
<td>Comments</td>
<td>Notes</td>
<td></td>
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</tr>
</tbody>
</table>
| Ojok Kenneth        | Resident Anaka | • Observes that the project will bring in more investors and factories like grain mills to cater for their agricultural produce.  
• Which power dam is to supply the proposed electricity?  
• What power company is to run the proposed project? | The area shall be connected to the national grid, which dam supplies a specific area may not necessarily be known to the consumer |
| Okello Ambrose      | Resident Anaka | • Setting up projects requiring electricity was slow but is certain that power will improve businesses around  
• If the place is very far from the extended power line will it be free to enter a home or is the community going to pay for the poles required? | Individual consumers shall pay their own bill                          |
| Apio Gloria         | Resident Anaka | • Will the project consider use of labour from the community especially the casual jobs?  
• When is the project taking off? | Community members shall be given priority to work on the project especially during construction |
| Rubangakene Morris  | Resident Anaka | • How many districts are being considered for the rural electrification project? Is it only Nwoya district?  
• Some people may not be interested in poles passing through their land. Do we consider compensating them. | Several districts have been considered  
A RAP has been prepared for the project |
Appendix II: Sample Contract Clauses for Civil Works

The following information is intended solely as broad guidance to be used in conjunction with the national laws. Based on this information, environmental rules for contractors should be developed for each project, taking into account the subproject size, site characteristics, and location (rural vs. urban). After choosing an appropriate site and design, construction activities can proceed. As these construction activities could cause significant impacts on and nuisances to surrounding areas, careful planning of construction activities is critical. Therefore the following rules (including specific prohibitions and construction management measures) should be incorporated into all relevant bidding documents, contracts, and work orders.

Prohibitions

The following activities are prohibited on or near the project site:

- Cutting of trees for any reason outside the approved construction area;
- Hunting, fishing, wildlife capture, or plant collection;
- Use of unapproved toxic materials, including lead-based paints, asbestos, etc.
- Disturbance to anything with architectural or historical value;
- Use of firearms (except authorized security guards); and
- Use of alcohol by workers.

Protection of Archaeological and Historical sites

A clause for “Protection of Archaeological and Historical Sites” should be added to all bidding documents for the works contract which explains the steps to follow whenever new archaeological remains, antiquity or any other object of cultural or archaeological importance are encountered during construction.

Construction Management Measures

Waste Management and Erosion:

Solid, sanitation, and, hazardous wastes must be properly controlled, through the implementation of the following measures:

Waste Management:

- Minimize the production of waste that must be treated or eliminated.
- Identify and classify the type of waste generated. If hazardous wastes (including health care wastes) are generated, proper procedures must be taken regarding their storage, collection, transportation and disposal.
- Identify and demarcate disposal areas clearly indicating the specific materials that can be deposited in each.
- Control placement of all construction waste (including earth cuts) to approved disposal sites (>300 m from rivers, streams, lakes, or wetlands).
- Dispose in authorized areas all of garbage, metals, used oils, and excess material generated during construction, incorporating recycling systems and the separation of materials.
Maintenance:

a. Identify and demarcate equipment maintenance areas (>30m from rivers, streams, lakes or wetlands).
b. Ensure that all equipment maintenance activities, including oil changes, are conducted within demarcated maintenance areas; never dispose spent oils on the ground, in water courses, drainage canals or in sewer systems.
c. Identify, demarcate and enforce the use of within-site access routes to limit impact to site vegetation.
d. Install and maintain an adequate drainage system to prevent erosion on the site during and after construction.

Site Cleanup

a. Establish and enforce daily site clean-up procedures, including maintenance of adequate disposal facilities for construction debris.

Safety during Construction

The Contractor’s responsibilities include the protection of every person and nearby property from construction accidents. The Contractor shall be responsible for complying with all national and local safety requirements and any other measures necessary to avoid accidents, including the following:

b. Carefully and clearly mark pedestrian-safe access routes.
c. If school children are in the vicinity, include traffic safety personnel to direct traffic.
d. Maintain supply of supplies for traffic signs (including paint, easel, sign material, etc.), road marking, and guard rails to maintain pedestrian safety during construction.
e. Conduct safety training for construction workers prior to beginning work.
f. Provide personal protective equipment and clothing (goggles, gloves, respirators, dust masks, hard hats, steel-toed and–shanked boots, etc..) for construction workers and enforce their use.
g. Post Material Safety Data Sheets for each chemical present on the worksite.
h. Require that all workers read, or are read, all Material Safety Data Sheets. Clearly explain the risks to them and their partners, especially when pregnant or planning to start a family. Encourage workers to share the information with their physicians, when relevant.
i. During heavy rains or emergencies of any kind, suspend all work.
j. Brace electrical and mechanical equipment to withstand seismic events during the construction.

Nuisance and dust control

To control nuisance and dust the Contractor should:

- Maintain all construction-related traffic at or below 15 mph on roads within 200 m of the site.
- Maintain all on-site vehicle speeds at or below 10 mph.
To the extent possible, maintain noise levels associated with all machinery and equipment at or below 90 db.

In sensitive areas (including residential neighborhoods, hospitals, rest homes, etc.) more strict measures may need to be implemented to prevent undesirable noise levels.

Minimize production of dust and particulate materials at all times, to avoid impacts on surrounding families and businesses, and especially to vulnerable people (children, elders).

Phase removal of vegetation to prevent large areas from becoming exposed to wind.

Place dust screens around construction areas, paying particular attention to areas close to housing, commercial areas, and recreational areas.

Spray water as needed on dirt roads, cut areas and soil stockpiles or fill material.

Apply proper measures to minimize disruptions from vibration or noise coming from construction activities.

Community Relations

To enhance adequate community relations the Contractor should:

- Follow the Ugandan and EA requirements i.e. inform the population about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, as appropriate.
- Limit construction activities at night. When necessary ensure that night work is carefully scheduled and the community is properly informed so they can take necessary measures.
- At least five days in advance of any service interruption (including water, electricity, telephone, and traffic routes) advice the community through postings at the project site, and affected homes/businesses, or through any other means as deemed adequate.

Environmental Supervision during Construction

The bidding documents should indicate how compliance with environmental rules and design specifications would be supervised, along with the penalties for non-compliance by contractors or workers. Construction supervision requires oversight of compliance with the manual and environmental specifications by the contractor or his designated environmental supervisor. Contractors are also required to comply with national laws governing the environment, public health and safety.
Appendix III: Steps of Grievance Redress

The project grievance redress procedure for this Project will operate as follows:

Step 1: Receipt of complaint

A verbal or a written complaint from a PAP will be received by the Contractor’s assigned Grievance Officer and recorded in a grievance log (electronically if possible).

Grievances can be lodged at any time, either directly to the Contractor, Sub-county/District Office or via the grievance committee member. The process for lodging a complaint is outlined below:

a) The GO will receive a complaint from the complainant.

b) The GO will ask the claimant questions in their local language, write the answers in English and enter them in English onto the Grievance Form.

c) A representative of the community and LC-1 Chairman shall witness translation of the grievance into English.

d) The GO reads the complaint in English and translates it into the complainant’s local language on the Grievance Form.

e) The local leader and the complainant both sign the Grievance Form after they both confirm the accuracy of the grievance.

f) The GO lodges the complaint in the Grievance Log.

Step 2: Determination of corrective action

If in his/her judgment, the grievance can be solved at this stage and the GO and a representative of the community and LC-1 will determine a corrective action in consultation with the aggrieved person. A description of the action; the time frame in which the action is to take place; and the party responsible for implementing the action will be recorded in the grievance database.

Grievances will be resolved and status reported back to complainants within 30 days. If more time is required this will be communicated clearly and in advance to the aggrieved person. For cases that are not resolved within the stipulated time, detailed investigations will be undertaken and results discussed in the monthly meetings with affected persons. In some instances, it may be appropriate to appoint independent third parties to undertake the investigations.

Step 3: Meeting with the complainant

The proposed corrective action and the timeframe in which it is to be implemented will be discussed with the complainant within 30 days of receipt of the grievance. Written agreement to proceed with the corrective action will be sought from the complainant (e.g. by use of an appropriate consent form). If no agreement is reached, Step 2 will be re-visited.

Step 4: Implementation of corrective action

Agreed corrective actions will be undertaken by the contractors or REA within the agreed timeframe. The date of the completed action will be recorded in the grievance database.

Step 5: Verification of corrective action
To verify satisfaction, the aggrieved person will be approached by the Grievance Officer to verify that the corrective action has been implemented. A signature of the complainant will be obtained and recorded in the log and/or on the consent form (see Step 3). If the complainant is not satisfied with the outcome of the corrective action additional steps may be undertaken to reach agreement between the parties. If additional corrective action is not possible alternative avenues maybe pursued.

Step 6: Action by Grievance Committee at the district level

If the complainant remains dissatisfied and a satisfactory resolution cannot be reached, the complaint will be handled by the Grievance Committee. A dedicated Grievance Committee will be established to assess grievances that arise from disputes. The Grievance Redress Committee at the district will at a minimum comprise the LC3 representative, representatives of vulnerable groups, District Land Officer, District Community Development Officer, District Environmental Officer, Contractor’s representative and a REA Grievance Officer who will oversee and coordinate grievance issues at the village level including setting up of Local Grievance Committees.

This committee must have a quorum of at least five persons. Decisions will be reached by simple majority. The Grievance Committee shall be constituted for as long as no more grievances are lodged.

Once the Grievance Committee has determined its approach to the lodged grievance, this will be communicated to the GO, who will communicate this to the complainant. If satisfied, the complainant signs to acknowledge that the issue has been resolved satisfactorily. If the complainant is not satisfied however, the complainant notes the outstanding issues, which may be re-lodged with the Grievance Committee or the complainant may proceed with judicial proceedings by going to courts of law as the last resort. The decision of the courts of law shall be final.

REA shall include regular updates and analysis of the GRM in their quarterly reports and also provides regular feedback to communities and other relevant stakeholders. All submitted complaints and grievances will be added to a database/project files which will be updated regularly. Each complaint and grievance shall be ranked, analyzed and monitored according to type, accessibility and degree of priority. The status of grievances submitted and grievance redress will be reported through the monthly reports.
Appendix IV: World Bank’s Grievance Redress Service (GRS)

WORLD BANK GRIEVANCE REDRESS SERVICE (GRS)

Interim Operating Procedure (Dec 09, 2014)

Purpose and Background

1. The World Bank’s Grievance Redress Service (GRS) provides an easy way for project-affected communities and individuals to bring their grievances directly to the attention of Bank Management. The GRS will ensure that grievances (complaints) are directed promptly to relevant Bank Task Teams and/or Managers for review and action, as appropriate. The goal is to enhance the Bank’s responsiveness and accountability.

2. Project-level grievance redress mechanisms (GRMs) where they exist remain the primary tool to raise and address project-related grievances in Bank-supported operations. What the GRS does is to allow the Bank to address issues that cannot be resolved at the project level, without undermining existing GRMs.

3. Thus, grievances that are brought directly to the project team or to the country office should be addressed at the project level, unless the complainants specifically refer to the GRS in their complaint, or Task Team or Management considers that referring the case to the GRS adds value. Complaints that are being addressed at the project-level can always be referred to the GRS at a later stage, especially if successful resolution (perceived or actual) was not possible (escalation).

What the GRS Does

4. The GRS facilitates corporate review and resolution of grievances by screening and registering complaints and referring them to the responsible Task Teams/Managers. The GRS undertakes the following functions within a defined time frame:
   • Receives complaints from stakeholders
   • Evaluates and determines their eligibility and category
   • Refers complaints to appropriate Task Teams/Managers
   • Follows up with Task Teams to ensure complaints are resolved
   • Refers project-affected people to the Borrower or other parties where appropriate.

What the GRS Does Not Do

5. The GRS does not offer independent mediation or conflict resolution services.

6. Using the GRS does not affect or limit the ability of project-affected people to access the Bank’s Inspection Panel, or other recourse avenues in any way.

Who May Submit a Complaint?

7. A complaint may be submitted by one or more individuals, or their representatives, who believe they are adversely affected directly by an active (i.e., not closed) Bank-supported operation (IBRD/IDA).

8. Procurement related complaints pertaining to Bank-financed operations could be also submitted by bidders or potential bidders (companies or individuals) to the Bank through the GRS.
These complaints, however, will be processed in line with BP 11.00 (Annex D) [link] and not following the GRS procedures set out below.

1 This includes loans, grants, trust funds, TA, and carbon operations.

**How to Submit a Complaint**

9. A complaint can be submitted in several ways.

• Via email: send an email to grievances@worldbank.org.

• Via fax: +1 – 202 – 614 – 7313

• Via mail:

The World Bank

*Grievance Redress Service*

MSN MC 10-1018

1818 H St NW

Washington, DC 20433, USA

• Via Country Office, Public Information Center: A flyer with an attached complaint form will be available.

**Language of Complaints**

10. Complaints may be submitted in the country’s official language. All of the GRS correspondence with the complainant will be in English and where appropriate the language of the complaint. In the event of any discrepancy between the two versions, the English version will prevail.

11. Processing of complaints not submitted in English will require additional response time due to the need for translation.

**Required Information**

12. *Substance of Complaint.* The complaint must clearly state the adverse impact(s) allegedly caused or likely to be caused by the Bank-supported operation. This should be supported by available documentation and correspondence where possible and appropriate. The complainant may also indicate the desired outcome of the complaint, i.e., how it may be resolved. All pertinent documentation should be provided with the complaint, or upon the GRS’s request through further correspondence. Annex x provides a suggested format for a submission.

13. *Identity.* The complaint must identify the individual(s) submitting the complaint, and whether it is a project-affected individual and/or community or representative. A complainant may ask that the identity of some or all of the individuals be kept confidential. The request for confidentiality, and the reasons for the request, must be submitted with the complaint.

14. *Representatives.* Complainants may use a representative (e.g. in cases where confidentiality of the individual or community is deemed necessary), in which cases, name and contact details of the representative need to be included in the complaint.
15. If the complainants use an authorized representative to assist them in filing the complaint, the authorized representative must sign the complaint and provide written proof (such as signed letter by the complainant) of the authorized representative’s authority to represent and act on behalf of the complainant in relation to the complaint. The GRS will communicate directly with the authorized representative as necessary and appropriate, and will keep the authorized representative and complainant informed about the status of the complaint.

16. Regardless of who submits the complaint, a complaint without contact details of the complainant will not be accepted. Contact details are vital in ensuring complaints are swiftly and effectively addressed.

**Scope and Eligibility of Complaints**

17. Complaints are considered *eligible* if they meet the following criteria:

- The complaint relates to a World Bank-supported project (IBRD or IDA) for which appraisal has begun already and that has not yet closed;
- The complaint is filed by project-affected individuals and/or communities, or their representative, who believe that they are or may be adversely affected by the project.

18. The following issues are *excluded*:

- Complaints pertaining to IFC or MIGA projects (these will be referred to CAO),
- Issues pertaining to fraud and/or corruption (these will be referred to INT),
- Issues related to employment with the World Bank.

19. Anonymous complaints cannot be accepted by the GRS, as noted above. However, if an anonymous complaint contains specific information about project related issues, it will be forwarded to the Task Team for their information and action where appropriate.

20. Complaints that are obviously frivolous or absurd will also not be accepted.

21. Complaints that have either already been rejected as ineligible, or have been successfully resolved through the GRS, will not be reconsidered unless additional information presented would justify doing so.

22. If a complaint pertains to a project with an existing project level GRM (see para 2), the GRS will make the complainant aware of this and encourage its use, with the option for the complainant to return to the GRS if resolution is not achieved. If the complainant declines to use the project level GRM, the GRS will inquire about the reasons for doing so, and start processing the complaint under the GRS.

**Complaints Handling Procedure**

23. Incoming complaints will be received and logged by the GRS. A category (I, II or III) will be assigned depending on the nature and gravity of the matter; this will determine the corporate level concerned with the case (see table x below). The complaint will then be forwarded to the responsible Task Team/Manager for review, response and, where appropriate, redress action. The GRS will then be updated continuously on the status of the complaint and the action (if any) through the central complaint repository that Task Teams will have access to. Where warranted,
Task Teams can request support from corporate units or GPs. If issues have a particular legal concern, they will be forwarded to LEG as well.

_Registration of Complaints_

24. After receipt of a complaint, the GRS immediately logs the complaint and a notification of receipt will be sent to the complainant.

25. Within _10 business days_: The GRS reviews and evaluates the complaint, determines the eligibility and type of complaint according to the categories in the table below, registers it and forwards it to the appropriate Task Team/Managers, which is noted in the online system. GRS will notify the complainant of the eligibility determination of the complaint.

• If the complaint is _eligible_, the complainant will be notified that the Task Team has been assigned the case with a case number and the expected time frame in which s/he will be contacted.

• If the complaint is _unclear_, the complainant will be requested to submit additional information or provide clarifications in order to allow a decision on registration.

• If the complainant is _not eligible_, the complainant will be notified of this decision and referred to relevant institutions where appropriate and the case will be closed.
Table 1: Complaint Categories and clearances

<table>
<thead>
<tr>
<th>Complaint Category</th>
<th>Incoming complaint sent to TTL and copied to:</th>
<th>Complaint is handled by:</th>
<th>Follow-up on resolution efforts are done by:</th>
<th>Proposal to resolve concern is cleared by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I (e.g., information request)</td>
<td>Practice Manager, CMU</td>
<td>TTL</td>
<td>Practice Manager</td>
<td>Practice Manager, CMU, ECRGP</td>
</tr>
<tr>
<td>Type II (e.g., minor and medium impacts)</td>
<td>Practice Manager, CMU</td>
<td>TTL</td>
<td>Practice Manager</td>
<td>Practice manager, CMU, ECRGP</td>
</tr>
<tr>
<td>Type III (e.g., serious issues of corporate relevance, harm, complex policy issues, etc.)</td>
<td>Practice Manager, Senior Director, Country Director</td>
<td>TTL</td>
<td>Director Strategy and Operations (GP)</td>
<td>Senior Director, Country Director, OPCS, LEGEN, ECRGP</td>
</tr>
</tbody>
</table>

CMU = Country Management Unit; GP ECR = External and Corporate Relations; OPCS = Operations Policy and Country Services; LEGEN = Environmental and International Law.

Review of issues raised and Formulation of Proposal

- Within 30 business days after registration the Task Team will respond to the complainant. For Type I complaints (information requests) the Task Team will provide the requested information in line with the Bank’s AI policy.

- For Type II and III complaints the Task Team will propose to the complainant how the issue raised in the complaint will be addressed, including a proposed time frame. The proposed time frame for Type II should not exceed 60 days and for Type III 180 days. If Task Team needs more time it will justify the additional time required.

- If the review by the task team reveals that the issues of concern raised in the complaint are not related to the Bank-supported project or any aspects thereof it will advise the complainant accordingly and refer the complainant to relevant government authorities to which the complaint should be addressed.

- The specific proposal to address the issue or the recommendation to refer it to the borrower will be cleared by the managers shown in table x. The same applies to notifications that the concern is not related to the Bank project and hence the Bank has no means to address it. If the complainant accepts a specific proposal to resolve the concerns, the Task Team implements according to proposed process and proposed timeframe. The Complainant may provide input on all or parts of the initial proposal.

- If the complainant rejects the proposal and/or the issue cannot be resolved through this process, the complainant will be informed by the GRS that the complaint is closed without resolution. The complainant will be referred to other options for remedy if appropriate such as responsible country authorities, relevant local/national grievance redress mechanisms or the World Bank Inspection Panel, if the complaint relates to noncompliance and harm.

- Acceptance of the proposal should be reached within 30 business days after the initial proposal has been presented to the complainant. For extraneous circumstances, request for extension can be submitted if both parties agree for an additional 30 days business at a time.

Implementation of Proposal

26. Once the proposal is accepted, the Task Team implements the proposal. The Task Teams will update the status and progress of the implementation of the proposal in the GRS log and will keep the complainant informed of such progress until resolution of complaint. The
Task Team may request support and advice through the GRS at any point. Such support and advice can be provided by OPCS, LEGEN or relevant GPs, CCSAs or the Region where required and as appropriate.

**Role of the GRS**

27. The GRS will maintain close contact with the Task Team/Managers handling the complaint and help to ensure timely response within the allotted time frame.

28. The GRS will maintain the central complaints database (log) to monitor and track grievance redress progress and ensure that process status is updated in the online system.

29. The GRS will provide guidance and support to Task Teams if necessary and requested.

30. The GRS will produce annual reporting and analysis of cases submitted to the GRS, and be responsible for external communications.

**Information Dissemination**

31. The GRS will be advertised through Project Appraisal Documents (PADs), Safeguard Documents and the Bank’s external and internal websites. The principles and operating procedures of the GRS will be available in all official languages of the Bank, both on the Bank’s website and as a hard copy.

32. For stakeholders who have no access to the internet, an information leaflet with complaint form will be available through Country Offices.

33. A dedicated GRS page on the Bank’s website will allow complainants to submit their complaints as well as check their status. The website will also host materials relevant and helpful to the complainant.

34. The GRS’ intranet website will provide materials and guidance for task teams.

**Publication and Reporting**

35. All complaints logged will be shown on the external GRS Internet site with number and country only for purposes of transparency, but without providing the specific details on the case or the complainants.

36. Access to information concerning any document related to the complaint is subject to the provisions of the Access to Information Policy of the World Bank.

37. The GRS will collect lessons learned throughout the process. At the end of every fiscal year, the GRS will make note of these lessons, what worked and what did not, in order to continuously improve the system. The first review will occur after 6 months of operation, and thereafter on an annual basis.

**Freedom from Retaliation**

38. Bank policies provide for the participation of project-affected people in project preparation and implementation. In furtherance of these policies the Bank also provides access to the GRS, which is the World Bank’s corporate grievance redress mechanism. Complainants who use the GRS must not be subject to any form of retaliation, abuse or any kind of discrimination based on the fact that they exercised their right to complain to the GRS.
GRS Review Process Chart

GRS receives complaint

Does the complaint meet Eligibility Criteria?

No

Complainant notified of ineligibility, case logged and closed

Yes

Complainant notified of receipt, eligibility and registration

Within 10 days of receipt

Complaint forwarded to Project Team for assessment

Within 30 days after registration

Project Team proposes resolution (with time frame) to complainant

Does complainant accept proposed process and time frame?

No

Complainant notified of other options for remedy, case logged and closed

Yes

Implementation of proposed Action starts. GRS monitors the progress until satisfactory resolution

Once complaint is resolved, it is logged as closed