ENERGY FOR RURAL TRANSFORMATION PHASE III

GRID INTENSIFICATION SCHEMES PACKAGED FOR CENTRAL, RWENZORI, WESTERN SERVICE TERRITORIES

ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN
LIST OF ACRONYMS

BECS  -  Bundibujyo Electricity Cooperative Society
CDO   -  Community Development Officer
DEO   -  District Environment Officer
ESMP  -  Environmental Social Management Plan
ESMF  -  Environmental Social Management Framework
ERT III - Energy for Rural Transformation (Phase 3)
KRECS - Kyegegwa Rural Electricity Cooperative Society
NEMA  -  National Environment Management Authority
REA   -  Rural Electrification Agency
UEDCL - Uganda Electricity Distribution Company Limited
Contents

1 INTRODUCTION ........................................................................................................... 2
2 METHOD FOR ESMP DEVELOPMENT .......................................................................... 4
3 POLICY AND REGULATORY FRAMEWORK FOR THIS ESMP ..................................... 4
4 THE ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN ............. 6
5 PERSONNEL REQUIREMENTS ................................................................................. 18
6 GRIEVANCE REDRESS MECHANISM ..................................................................... 18
7 CODE OF CONDUCT ............................................................................................... 18
8 ROLES AND RESPONSIBILITIES ......................................................................... 19
9 APPENDIX 1: PROJECTS TO BE IMPLEMENTED AND THEIR SCOPE ......................... 21
10 APPENDIX 2: DESCRIPTION OF THE PROJECT AREAS ..................................... 27
1 INTRODUCTION
The Government of Uganda received financing from the World bank / IDA towards implementing Phase III of the Energy for Rural transformation Project (ERT III) and intends to apply part of the credit proceeds to construct grid intensification lines and associated connections in 13 service territories. Grid intensifications is one of the ERTII components. The Grid intensification component specifically involves constructing short power extensions of the medium voltage powerlines (not exceeding 5km and installation of transformers) and low voltage (LV) network (six poles) to potential customers who are relatively close to the existing grid. Beneficiaries of the project shall include households, social institutions and (small) businesses.

The grid intensification projects will involve the following activities:

i. Surveying, structural spotting and line route profiling, pegging and bush clearing. The line route survey shall be carried out by establishing 3-Dimension UTM coordinates of points of interest along the route including but not limited to educational institutions, health facilities, water supply stations, trading centers, Small and Medium Scale Business, Households and Public Offices and Institutions. The coordinate system shall be Arc1960, Zone 36N.

ii. Erection of medium and low voltage line support structures, accessories and conductors. These include:

   - Extension of Medium Voltage power lines (33kV/11kV) not exceeding 5km and Low Voltage power lines plus installation of transformers. Medium Voltage extensions to the existing/main lines shall be of 100mm² AAAC; overhead bare conductor while transformer tee-offs shall be of 50mm² AAAC overhead bare conductor.
   - Low Voltage extensions of one to six poles in association with or independent from the Medium Voltage. The low voltage reticulation shall be implemented using 50mm² AAAC overhead bare conductor and Al, XLPE Aerial Bundled Conductor (ABC).
   - The project shall utilize poles of 9, 12 or 14m that are either Creosote or Copper Chromium Arsenate (CCA) treated.
   - All transformers will be pole mounted on double member structures. Dropout fuse isolators shall be installed at all line tee-off and transformer tee-off structures (for 33/0.415kV or 11/0.415kV transformers) as transformers shall not be installed under the main line.

(ii) Clearing of the right of way for medium voltage and low voltage lines. The clearance of the right of way is expected to be minimal as these projects shall be implemented in already developed areas i.e. Growth Centres along the existing powerlines.

Intensification projects are classified as low risk category under the ERT-III Environmental and Social Management Framework, and therefore and ESMP suffices as a guiding tool to
ensure that the projects are implemented in an environmentally and socially acceptable manner. This Environmental and Social Management Plan is therefore in line with the ERT-III ESMF and has therefore been developed to guide the construction activities for the grid intensifications and associated connections to ensure the project component activities do not cause negative environmental and social impacts.

This ESMP covers intensification projects planned in the following areas: Central Service Territory under KRECS and UEDCL, Rwenzori ST under BECS, Western ST -under KIL, North Western ST. The details of the projects, their scope (size and area) are presented in Annex 1.

The areas where the projects are planned to be implemented are mainly trading centres that are very near to the existing lines. Sensitive ecosystems do not exist in all the project areas through which the power extensions are to be constructed. The exception is Rwenzori ST where there is cocoa growing as well as challenging terrain in Rwenzori and Western STs. Otherwise, the project is not anticipated to have serious negative impacts on the environment (Physical and social). The main anticipated social impacts are mainly related to compensation and they have been addressed in the ARAP developed alongside this ESMP.
2 METHOD FOR ESMP DEVELOPMENT
This ESMP has been developed based on:
(i) Literature review on the project, legal framework, ESMF and the World Bank safeguard policies among others.
(ii) Visits to examine the prevailing environmental and social aspects of the project areas.
(iii) Engagement with the potential beneficiaries to examine their views on the project so that they are incorporated in the ESMP.

3 POLICY AND REGULATORY FRAMEWORK FOR THIS ESMP
Key laws and regulatory frameworks for guiding the implementation of environmental and social aspects of the grid-intensification project include:

National Policy Framework
- The National Environment Management Policy 1994;
- The National Cultural Policy, 2006;
- The National Water Policy, 1999;
- The National Land Use Policy, 2011;
- Forestry policy, 2001
- Energy policy, 2001
- Public Health Policy 1964
- The National Gender Policy, 1997;
- The National HIV/AIDS Policy, 2004;
- The National Policy for the Conservation and Management of Wetland Resources, 1995; and
- The Uganda Wildlife Policy, 1999
- The National Children Protection Policy
- The Uganda National HIV and AIDS Policy, 2011
- The National Social Protection Policy
- The National Policy for Disaster Preparedness and Management Policy
- The National Action Plan on Gender Based Violence

The Ugandan legal framework
- The Constitution of the Republic of Uganda, 1995;
- The National Environment Act, Cap 153;
- The Electricity Act, 1999
- The Public Health Act, 1964
- The Land Act, Cap 227;
- The Water Act, Cap 152;
- The Uganda Wildlife Act, Cap 2000;
- The Occupational Safety and Health Act, 2006;
- The Employment Act, 2006 and other related Acts;
- The Workman’s Compensation Act, 2000;
• Historical Monument Act, 1967;
• The National Forestry and Tree Planting Act, 2003;
• The National Environment (Impact Assessment) Regulations, 1998
• The National Environment (Waste Management) Regulations, 1999;
• The National Environment Regulations (Noise Standards and Control), 2003
• The National Environment (Control of Smoking in Public Places) Regulations, 2004
• The National Environment Regulations (Hilly and Mountainous areas Management), 2000
• The National Environment (Audit) Regulations, 2006 (12/2006); and
• The National Environment (Wetlands, Riverbanks and Lakeshores Management) Regulations (SI 153-5).

World Bank Safeguard Policies
The safeguards policies triggered are:
• OP 4.01 Environmental Assessment
• OP 4.04 Natural Habitats
• OP 4.11 Physical Cultural Resources
• OP 4.12 Involuntary Resettlement
• OP 4.36 Forests
4 THE ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN

The ESMP delineates specific actions for mitigating the potential significant impacts, stakeholders responsible for the implementation of proposed measures, the specific performance indicators to be used during inspection and monitoring, the responsible persons, and cost as presented below.

Major activities of this environmental management and monitoring plan for the project include among others the following:

- Health and safety of the workforce and communities during construction;
- Construction waste management and disposal.
- Pollution from materials storage site
- Social Impacts of Construction Labor. (Harassment and abuse of workers)
- Gender issues including sexual harassment and Gender Based Violence. GBV is a key aspect although the risk is minimal for this kind since the projects are of short spans, widely distributed and utilizes free wayleaves hence the key causes of GBV are minimized.
- HIV/AIDS impacts and management
- Child labor and abuse.
- Impacts on the physical environment
- Influx of labor (At any one time, the contractor may have three gangs each working on a single scheme. Each gang comprises of about ten workers most of whom are recruited from the project host communities).

An Environmental and Social Management Plan as shown in the table below will be used to guide the management and monitoring of environmental and social impacts during project implementation process.

REA’s Environmental and Social Safeguard team shall ensure that commitments in this ESMP are implemented. Monitoring will involve measurements, observations, evaluations, assessment and reporting on the following variables during the implementation phases of the project.

Monthly monitoring reports will be prepared showing the status of implementation of mitigation measures, challenges and emerging/unforeseen impacts during construction.
<table>
<thead>
<tr>
<th>No.</th>
<th>Environmental and Social Impact to be monitored</th>
<th>Mitigation Measures</th>
<th>Monitoring/Performance Indicators (Means of verification)</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Estimated Cost</th>
<th>Monitoring Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Impacts due to inadequate collaboration of stakeholders and implementing agency</td>
<td>- Collaboration with LG units and Government agencies; Labour, Probation, Health, Police, Community Development and Local Councils</td>
<td>- Presence of minutes of meetings</td>
<td>Pre-construction, construction and operation</td>
<td>- REA, Service Territory Operators, Contractors.</td>
<td>- 10,000,000</td>
<td>-Monthly</td>
</tr>
</tbody>
</table>
| 2.  | Health and safety of the workforce and public during construction                 | - Occupation Safety and Health Plan  
- Provide protective gear to the workers.  
- Provide functional first aid kits  
- Train workers to wear protective gear  
- Proper site hoarding will be undertaken and kept strictly out of bounds and guarded against access to kids and non-construction personnel.  
- Materials Safety Data Sheets should be on site for reference by the staff.  
- Workers working at heights shall be given adequate and appropriate protective wear including climbing belts and shoes. The workers shall not be allowed to work uncles they have been cleared to not have taken drugs like alcohol. Workers shall also be trained in    | - Presence of occupation Safety and Health Plan  
- Orientation report of workers and stakeholders on OSH  
- Record of accidents that may occur on or around the project site  
- Training reports and records of training on HSE in place  
- Presence of first aid kits and protective gear  
- Monitoring Reports on PPE usage in place  
- Presence of security personnel and hoarding material at sites.  
- Presence of accident log to document any accidents. Presence of material data sheets | Construction | Contractor | -10,000,000               | -Daily by the Contractor |
<table>
<thead>
<tr>
<th>No.</th>
<th>Environmental and Social Impact to be monitored</th>
<th>Mitigation Measures</th>
<th>Monitoring/Performance Indicators (Means of verification)</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Estimated Cost</th>
<th>Monitoring Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>health and safety including working at heights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ensure that live-wire work is conducted by trained workers with strict adherence to specific safety and insulation standards. Qualified or trained employees working on transmission systems should be able to achieve the following:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Distinguish live parts from other parts of the electrical system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Determine the voltage of live parts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Understand the minimum approach distances outlined for specific live line voltages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ensure proper use of special safety equipment and procedures when working near or on exposed energized parts of an electrical system;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• In addition to the above measures, project implementation activities shall be guided by the WB EHS guidelines(^1) which adequately</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) General: [http://www.ifc.org/wps/wcm/connect/554e8d80488658e4b76af76a6515bb18/Final%2B-%2BGgeneral%2BEEHS%2BGuidelines.pdf?MOD=AJPERES](http://www.ifc.org/wps/wcm/connect/554e8d80488658e4b76af76a6515bb18/Final%2B-%2BGgeneral%2BEEHS%2BGuidelines.pdf?MOD=AJPERES)

<table>
<thead>
<tr>
<th>No.</th>
<th>Environmental and Social Impact to be monitored</th>
<th>Mitigation Measures</th>
<th>Monitoring/Performance Indicators (Means of verification)</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Estimated Cost</th>
<th>Monitoring Frequency</th>
</tr>
</thead>
</table>
| 3.  | Social Impacts (Construction Labour Labour influx, Harassment, GBV and abuse of workers) | • Labour Management Plan and its implementation  
• Ethical code of conduct including zero tolerance for sexual exploitation and abuse of minors and women; and its implementation  
• Registration/identification of workers  
• Incident management reports  
• Ensuring contracts are signed for each employee.  
• Collaboration with labour officer to guide/monitor contract  
• Engagement of workers on the laws against defilement and other sexual offences.  
• Monitoring reports of workers behaviour conduct during construction works  
• Engagement of workers on the family and child protection unit of police  
• Casual workers should as a priority be recruited from the project host communities  
• Where possible it will be important to allow time for | • Presence of Labour Management Plan  
• All workers oriented to the ethical code of conduct as part of recruitment process  
• Ethical Code of Conduct translated for workers who can’t read English and signed by all workers  
• Communities and stakeholders made aware of the worker’s code of conduct (publicly displayed, disseminated through radio programs and other relevant print media etc)  
• Presence of workers register with details of specific place of origin, national ID number or recognized identification in lieu, age, next of kin, telephone contacts etc  
• Availability of signed contracts by all workers  
• All workers having worker IDs and displaying them  
• Workers accommodation in the project area mapped and | Construction | Contractor  
Local government  
REA | -20,000,00 | -Monthly |
<table>
<thead>
<tr>
<th>No.</th>
<th>Environmental and Social Impact to be monitored</th>
<th>Mitigation Measures</th>
<th>Monitoring/Performance Indicators (Means of verification)</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Estimated Cost</th>
<th>Monitoring Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Accidents during construction</td>
<td></td>
<td>cleared by the contractor’s sociologist.</td>
<td></td>
<td>Contractor</td>
<td>-5,00,000</td>
<td>- Weekly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Check list on working conditions and entitlements including amenities displayed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Identification, reporting and follow up mechanisms of project related sexual abuse cases agreed with the relevant District authorities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Reports of engagement meetings and citizen engagement activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Labour requirements awareness reports (should include efforts made to attract female employees)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Existence of an anti-sexual harassment workplace program as per the Uganda Employment Act 2010.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Labor inspection reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Pollution on site and surrounding from</td>
<td></td>
<td>• Visible and readable signage</td>
<td></td>
<td>Contractor</td>
<td>-10,00,000</td>
<td>- Daily</td>
</tr>
<tr>
<td></td>
<td>construction machines and equipment if used.</td>
<td></td>
<td>• Tool box meeting reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• PPE issuance records</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Existence of an appropriate insurance policy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Accident management reports and related compensations completed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Construct/Provide adequate secondary containment (containment bunds) for any fuel storage facilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Facilities for storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Maintenance records</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Community and Citizen engagement feedback reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Environmental and Social Impact to be monitored</td>
<td>Mitigation Measures</td>
<td>Monitoring/Performance Indicators (Means of verification)</td>
<td>Timing</td>
<td>Responsibility</td>
<td>Estimated Cost</td>
<td>Monitoring Frequency</td>
</tr>
<tr>
<td>-----</td>
<td>------------------------------------------------</td>
<td>---------------------</td>
<td>----------------------------------------------------------</td>
<td>--------</td>
<td>----------------</td>
<td>----------------</td>
<td>---------------------</td>
</tr>
</tbody>
</table>
- Provide adequate facilities for the temporary storage of waste oil if any. | - Complaints registered from community  
- Reports on actions taken to respond to community complaints and concerns.  
- Incident register for workers | -Construction | -Contractor | - | -Daily |
| 7.  | Potential child abuse | - Avoiding employing workers below 18 years.  
- Put in place a child protection plan and implement it  
- Before recruitment, workers should provide their identity cards to ascertain their correct age.  
- Report cases of child abuse to authorities  
- Collaboration with labour, probation and welfare officers for cases of child abuse or violating workers’ rights. | - Presence of child protection plan  
- Communication on number and type of project related sexual abuse and exploitation cases and actions taken flagged to the World Bank within 24 hours of identification.  
- Sexual abuse and exploitation updates included in the monthly/quarterly project reports as a standard.  
- Survivor confidentiality adherence in each case reported.  
- Orientation reports on sexual abuse and exploitation. | Construction phase | Contractor | -1,000,000 | Monthly |
<p>| 8.  | Fears of spread of HIV/AIDS by workers of the project through | - Sensitise communities on their sexual rights | - Accredited and competent HIV service provider or district teams committed to support | Construction phase | Contractor | -30,000,000 | Monthly |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>Environmental and Social Impact to be monitored</th>
<th>Mitigation Measures</th>
<th>Monitoring/Performance Indicators (Means of verification)</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Estimated Cost</th>
<th>Monitoring Frequency</th>
</tr>
</thead>
</table>
|     | Friendship with people’s wives                 |                     | • Put in place an HIV/AIDS prevention plan and implement it  
• Report cases of women abuses to authorities | the project HIV/AIDS response.  
• Presence of HIV/AIDS prevention and management plan aligned to the respective district HIV/AIDS plans and tailored to the risk factors and key drivers of the epidemic in the project area.  
• Relevant HIV prevention and mitigation IEC materials displayed  
• HIV/AIDS Management/prevention Reports  
• Quarterly community feedback reports on effectiveness of the HIV response |        |               | -               | Continuous          |
| 9.  | Impact on Human Settlements                    |                     | • Ensure that houses and structures are not impacted by passing the line through the road reserve  
• Poles to be guided away from buildings | • Strip maps showing power lines and human settlements  
• Community awareness IEC materials displayed  
• No of complaints recorded  
• Frequency of sensitisation | Construction and design phases | Contractor  
REA | -Incorporated in the BOQs for works | Continuously          |
| 10. | Impacts due to Equipment storage areas/ camps   |                     | • The workers camp will not be constructed  
• Equipment storage areas raised and with absorbents for materials that may lead to chemical leakages e.g. poles  
• Provide adequate proper sanitation facilities  
• Segregate waste into biodegradable, non-biodegradable and hazardous and dispose appropriately; | • Updated register of worker’s accommodation and contacts of landlords in place  
• Presence of clean water, soap and sanitation facilities segregated for men and women.  
• Existence of health promotion IEC materials including hand washing and management of waste.  
• No of bins at site | Construction phase | Contractor | 1,000,000 | Before construction begins |
<table>
<thead>
<tr>
<th>No.</th>
<th>Environmental and Social Impact to be monitored</th>
<th>Mitigation Measures</th>
<th>Monitoring/Performance Indicators (Means of verification)</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Estimated Cost</th>
<th>Monitoring Frequency</th>
</tr>
</thead>
</table>
| 11  | Hazardous materials and waste                 | • PCB containing transformers shall not be procured.  
• Pre-treat Poles at a designated facility to ensure chemical fixation and prevent leaching into the soil among others.  
• Non PCB containing transformers installed  
• Fully dried poles delivered at the site | | During construction | Contractor | Embedded in civil works costs | Continuous |
| 12  | Impacts on crops. The impact shall be much felt in Bundubugyo where cocoa is grown as the line traverses Cocoa plantations | • Ensure that poles of 12m and above are used to span over the Cocoa plantations  
• Plants should only be cut if it is a must and it should be only where the poles are to be planted  
• Communities should be fully engaged in this area to ensure that the conflict between the project and communities are minimised.  
• Height of poles used  
• No of Cocoa and other plantations/trees avoided  
• No. of complaints regarding cocoa and other plants/trees destroyed | | During planning and construction | REA Contractor | Embedded in civil works costs | Weekly |
<p>| 13  | Impacts from slope failures in hilly areas especially in Bundubugyo | • Ensure that poles are not planted in spots with soft soil or spots with potential of slope giving away | • Number of avoided spots | During Construction | Contractor | Embedded in civil works costs | Continuous |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>Environmental and Social Impact to be monitored</th>
<th>Mitigation Measures</th>
<th>Monitoring/Performance Indicators (Means of verification)</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Estimated Cost</th>
<th>Monitoring Frequency</th>
</tr>
</thead>
</table>
| 14  | Management of construction and other waste disposal | • Dispose of waste in gazetted waste dumping sites or areas approved by local authorities.  
• Metal scrap should be collected and sold off to recycling facilities, wood waste used for cooking, plastic waste disposed of at approved site or delivered to recycling facilities | • Record of who handles which type of waste, where generated and where disposed of including the quantities. | Construction | Contractor | 10,000,000 | Monthly |
| 15  | Labour issues – employment and working conditions | • Contractor to have in place a Labour force Management Plan, in line with the Labour Act and OHS Act. Labour Force Management Plan to address issues of workers’ welfare, child labour, workers code of conduct, sexual harassment among workers, compensation in cases of accidents, payments and contracts, and a grievance management mechanism;  
• All workers to have contracts and identification tags;  
• Persons seeking employment will have to be screened, including references from the local Council Chairpersons of their villages of origin before engagement.  
• To mitigate negative impacts arising from recruitment of labour from distant places, the contractor should hire local labour mainly. | Labour Force Management Plan.  
Workers code of conduct.  
• Contracts for workers. | Construction | Contractot | 10,000,000 | Monthly |
<table>
<thead>
<tr>
<th>No.</th>
<th>Environmental and Social Impact to be monitored</th>
<th>Mitigation Measures</th>
<th>Monitoring/Performance Indicators (Means of verification)</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Estimated Cost</th>
<th>Monitoring Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Workers' behaviour – affecting women, girls</td>
<td>• Both men and women will be given equal employment opportunities and that there will be fair treatment and non-discrimination among staff</td>
<td>Cases reported; Cases concluded</td>
<td>Construction</td>
<td>Contractor</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• A code of conduct to be developed by Contractor for employees, to address abuse of women and girls that may lead to broken marriages, early pregnancies, sexual exploitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Environmental and Social Impact to be monitored</td>
<td>Mitigation Measures</td>
<td>Monitoring/Performance Indicators (Means of verification)</td>
<td>Timing</td>
<td>Responsibility</td>
<td>Estimated Cost</td>
<td>Monitoring Frequency</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------------------------</td>
<td>---------------------</td>
<td>---------------------------------------------------------</td>
<td>--------</td>
<td>---------------</td>
<td>---------------</td>
<td>--------------------</td>
</tr>
</tbody>
</table>
| 17  | Poor Human waste management                   | • Put in place mobile toilets for use by workers during construction and ensure their periodic emptying by a licensed cesspool provider to any waste disposal designated facility;  
• Workers should be made aware of the available sanitary facilities and trained on their use;  
• Ensure regular inspection of the worksite and the transmission line routes to identify sanitation non-conformances and ensure timely re-address.  
• Ensure that separate toilets are availed for both men and women and they should be well labelled. | Mobile toilets.  
Sanitation non-conformance in the work areas. | Construction | Contractor | 30,000,000 | Monthly |
| 18  | Impacts on Physico-Cultural Resources          | • At the local level, additional consultations will be carried out prior to commencement of works by the contractor, particularly on sites of cultural importance along the RoW;  
• Where cultural resources are encountered, compensation will be provided including support for relocation, such as graves, where applicable in a culturally acceptable manner;  
• Excavation of sites of known archaeological importance should be avoided, and the routing of distribution lines should be designed to avoid graveyards or sites of historical or spiritual importance;  
• Construction workers and managers should be trained in basic skills of PCRs records. | PCRs records.  
Community consultations on PCRs.  
Chance Finds Procedure implemented by Contractor.  
Cultural resources encountered  
Along the RoW.  
Trained workers in handling archaeological materials/artifacts.  
Authorisation from DMM. | Construction | Contractor | 25,000,000 | Regularly |
<table>
<thead>
<tr>
<th>No.</th>
<th>Environmental and Social Impact to be monitored</th>
<th>Mitigation Measures</th>
<th>Monitoring/Performance Indicators (Means of verification)</th>
<th>Timing</th>
<th>Responsibility</th>
<th>Estimated Cost</th>
<th>Monitoring Frequency</th>
</tr>
</thead>
</table>
|     | how to identify and handle archaeological materials/artifacts before commencement of work. Such training should be administered in liaison with DMM | - In the event of any chance finds of significance by the contractor, following the discovery of possible PCR, the Contractor will be required to follow a “chance finds procedure” in Appendix 6.  
- The Contractor will be required to stop works and contact REA/MEMD to inform the Department of Museums and Monuments. The Contractor should have the artefacts secured or protected, and prevent any access.  
- DMM will then undertake investigations, and works will only resume once authorization is provided. | | | | |
5 PERSONNEL REQUIREMENTS
The Contractor shall be required to have full time Environmental and social safeguards experts to guide in implementation and monitoring of the environmental and social safeguards of the project.

6 GRIEVANCE REDRESS MECHANISM
The Contractor shall develop a GRM based on the one outlined in the ERT-III ESMF. GRM will also describe procedures, roles and responsibilities for managing grievances and resolving disputes. The GRM will be set up and will comprise of opinion leaders, women, men, youth, Persons with Disabilities (PWDs) representatives and LC1 Chairpersons among the PAPs. Every aggrieved person shall be able to trigger this mechanism to quickly resolve their complaints.

7 CODE OF CONDUCT
In order to minimize negative social impacts due workers behavior, the Contractor shall prepare and submit a code of conduct to REA. The code of conduct shall contain obligations on all project staff (including sub-contractors and workers) that are suitable to address the following issues, as a minimum (with clear penalties and sanctions for non-compliance).

1. Compliance with applicable laws, rules, and regulations.
2. Compliance with applicable health and safety requirements (including strict compliance to wearing prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment)
3. The use of illegal substances (like drugs, taking alcohol while at work, smoking in public). Employees shall not be allowed to work if they are found to have taken illegal substance. Therefore workers shall be encouraged not to take illegal substances even when they are not on duty.
4. Non-discrimination (for example on the basis of family status, ethnicity, race, gender, religion, language, HIV status, marital status, birth, age, disability, or political conviction)
5. Interactions with community members (for example to convey an attitude of respect and non-discrimination)
6. Sexual harassment (for example to prohibit use of language or behavior, in particular towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate)
7. HIV/AIDS transmission and prevention
8. Violence or exploitation (for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading or exploitative behavior.
9. Protection of children (including prohibitions against abuse, defilement, or otherwise unacceptable behavior with children, limiting interactions with children including avoiding being in the company of children without their parents or guardians, and ensuring their safety in project areas.)
10. Sanitation requirements (for example, to ensure workers are provided with decent and clean sanitary facilities separated for men and women provided by their employer and not by the community, with zero tolerance on use of open areas.

11. Avoidance of conflicts of interest (such that benefits, contracts, or employment, or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, family or personal connection)

12. Respecting reasonable work instructions (including regarding environmental social norms)

13. Protection and proper uses of property (for example, to prohibit theft, carelessness or waste)

14. Duty to report violations of this code

15. Non retaliation against workers who report violations of the code, if that report is made in good faith.

The code of conduct shall be written in plain language (where necessary translated) and signed by each worker in addition to being publicly displayed to indicate that they have:

- Received a copy of the code
- Had the code explained to them
- Acknowledged that adherence to this code of conduct is a condition of employment and
- Understood that violations of the code can result in serious consequences, up to and including dismissal or referral to legal authorities.

8 ROLES AND RESPONSIBILITIES

This section sets out the roles and responsibilities for the management project’s safeguards aspects.

8.1 PROJECT PROPONENT / REA

As the developer, REA will assume overall responsibility for implementing this ESMP. During construction, the contractor will be employed as such; REA will assume overall responsibility over the Contractor’s compliance standards and obligations in the implementation of the ESMP (as well as wider contractual obligations).

8.2 CONTRACTOR

During the construction phase, REA will engage a Contractor to undertake the construction of the project in line with the approved designs. The Contractor will be responsible for complying with all relevant environmental and social policies and laws and adhere to all mitigation measures specified in the ESMP. REA will be responsible to ensure measures in the ESMPs are complied with. The Contractor must have sufficient, adequate and competently resourced environmental and social management unit to fulfil the environmental and social requirements established in this ESMP and supporting documentation. The Contractor’s Safeguard’s personnel shall ensure presentation of all briefing sessions on environment, social and safety to the
workers as and when required. In this regard, the Safeguard’s personnel will take responsibility for mitigation and management of potential environmental and social issues on site.

Specific Safeguard’s personnel responsibilities include the following:

a. Take responsibility for mitigation and management of potential environmental and social issues on site as per the ESMP;
b. Liaise with the Employer Safeguard’s Team regarding site visits and briefing sessions;
c. Liaise with service providers regarding the ESMP requirements;
d. Organize and maintain briefing session records and mitigation and monitoring documentation on all matters of HSE;
e. Respond to site inspection findings; and
f. Receive and respond to any complaints from external parties on project issues on HSE.

8.3 THE NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY

NEMA is specifically mandated by the National Environment Act (NEA) Cap. 153 as the principal agency in Uganda charged with the responsibility of coordinating, monitoring, supervising, and regulating all environmental management matters in the country. One of the key institutional mandates of NEMA include among others ensuring the observance of proper safeguards in the planning and execution of all development projects including those already in existence that have or are likely to have significant impact on the environment. The role of NEMA monitoring in the project implementation is in accordance with the National Environment Act and the respective regulations.

8.4 LOCAL GOVERNMENT ADMINISTRATION STRUCTURES

District and Local Council Administration in the project districts will be vital in implementation of the project by mobilizing political goodwill and sensitizing communities on the project as well as their District Environment and Community Development Officers taking care of environmental and social aspects of the project at their levels. The DEOs and CDOs in the respective areas of project implementation will have to monitor the projects to ensure that mitigation measures are adequate and are well integrated in the subproject proposals. The Role of the DEOs and CDOs will also be to ensure that the projects are implemented in accordance with national laws and regulations. They will also attend the monthly site inspection meetings for the project and be able to point out issues of concerns. Specifically the CDOs will oversee implementation of compensation aspects and other social issues such as complaints through a transparent and community established GRM.
### APPENDIX 1: PROJECTS TO BE IMPLEMENTED AND THEIR SCOPE

#### SUMMARY SCOPE FOR CENTRAL ST - INTENSIFICATION PROGRAM - UNDER KRECS

<table>
<thead>
<tr>
<th>Description</th>
<th>District</th>
<th>Voltage, kV</th>
<th>MV R/L, km</th>
<th>LV R/L, km</th>
<th>LV R/L, km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barwenda I</td>
<td>Kyegegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.30</td>
<td>1.04</td>
</tr>
<tr>
<td>Katente Resort</td>
<td>Kyegegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.05</td>
<td>0.06</td>
</tr>
<tr>
<td>Kidongo</td>
<td>Kyegegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.20</td>
<td>1.59</td>
</tr>
<tr>
<td>Bigaaga</td>
<td>Kyegegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.20</td>
<td>0.64</td>
</tr>
<tr>
<td>Buhumururo</td>
<td>Kyegegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.50</td>
<td>1.13</td>
</tr>
<tr>
<td>Ngata</td>
<td>Kyegegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.62</td>
<td>1.43</td>
</tr>
<tr>
<td>Mukonomura</td>
<td>Kyegegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.50</td>
<td>1.10</td>
</tr>
<tr>
<td>Kakasolo</td>
<td>Kyegegwa</td>
<td>33</td>
<td>0.10</td>
<td>-</td>
<td>0.84</td>
</tr>
<tr>
<td>Kiregesa</td>
<td>Kyegegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.50</td>
<td>1.25</td>
</tr>
<tr>
<td>Location</td>
<td>Area</td>
<td>Product</td>
<td>Grade</td>
<td>Price 1</td>
<td>Price 2</td>
</tr>
<tr>
<td>---------</td>
<td>-----</td>
<td>--------</td>
<td>------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Miryante Voc. Sch.</td>
<td>Kyegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.20</td>
<td>0.65</td>
</tr>
<tr>
<td>Kyankwanzi</td>
<td>Kyegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.70</td>
<td>2.09</td>
</tr>
<tr>
<td>Kiranzi / Kyegwa</td>
<td>Kyegwa</td>
<td>33</td>
<td>0.36</td>
<td>0.60</td>
<td>1.25</td>
</tr>
<tr>
<td>Kyasitiri</td>
<td>Kyegwa</td>
<td>33</td>
<td>0.20</td>
<td>1.00</td>
<td>2.32</td>
</tr>
<tr>
<td>Nakasero / Kanyegamire</td>
<td>Kyegwa</td>
<td>33</td>
<td>0.10</td>
<td>0.60</td>
<td>2.00</td>
</tr>
<tr>
<td>Nyamigisa</td>
<td>Kyegwa</td>
<td>33</td>
<td>2.24</td>
<td>0.20</td>
<td>1.00</td>
</tr>
<tr>
<td>Byeba</td>
<td>Kyegwa</td>
<td>33</td>
<td>1.42</td>
<td>0.30</td>
<td>2.06</td>
</tr>
<tr>
<td>Matiri / Kyepatiko</td>
<td>Kyegwa</td>
<td>33</td>
<td>1.01</td>
<td>0.40</td>
<td>1.59</td>
</tr>
<tr>
<td>Rwamijo</td>
<td>Kyegwa</td>
<td>33</td>
<td>1.31</td>
<td>0.50</td>
<td>3.02</td>
</tr>
<tr>
<td>Kahihi</td>
<td>Kyegwa</td>
<td>33</td>
<td>1.92</td>
<td>1.00</td>
<td>2.06</td>
</tr>
<tr>
<td>Nakiganda - Mpologoma &amp; Kiganda</td>
<td>Mubende</td>
<td>33</td>
<td>0.40</td>
<td>0.60</td>
<td>3.00</td>
</tr>
<tr>
<td>Nabukenya PS &amp; Lwankuba Coffee Farm</td>
<td>Mubende</td>
<td>33</td>
<td>0.35</td>
<td>0.80</td>
<td>-</td>
</tr>
</tbody>
</table>
### SUMMARY SCOPE FOR THE RWENZORI ST - INTENSIFICATION PROGRAM

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>District</th>
<th>Voltage, kV</th>
<th>MV R/L, km</th>
<th>LV R/L, km</th>
<th>LV R/L, km</th>
<th>Distribution Transformers, kVA</th>
<th>3-phase</th>
<th>1-phase</th>
<th>25</th>
<th>25</th>
<th>50</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mantoroba</td>
<td>Bundibugyo</td>
<td>33</td>
<td>0.10</td>
<td>-</td>
<td>0.95</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Busaru Central</td>
<td>Bundibugyo</td>
<td>33</td>
<td>0.10</td>
<td>-</td>
<td>0.95</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Sara City</td>
<td>Bundibugyo</td>
<td>33</td>
<td>0.10</td>
<td>0.94</td>
<td>2.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Kakwamba / Kyabandara</td>
<td>Bundibugyo</td>
<td>33</td>
<td>0.10</td>
<td>0.20</td>
<td>1.38</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Kibuku North</td>
<td>Bundibugyo</td>
<td>33</td>
<td>0.10</td>
<td>-</td>
<td>0.30</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Nyabusokoma</td>
<td>Bundibugyo</td>
<td>33</td>
<td>0.10</td>
<td>-</td>
<td>0.98</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Kibaale</td>
<td>Bundibugyo</td>
<td>33</td>
<td>0.62</td>
<td>0.50</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Nakakindo III</td>
<td>Bundibugyo</td>
<td>33</td>
<td>1.93</td>
<td>0.45</td>
<td>2.30</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>Bujabala - Dumba</td>
<td>Bundibugyo</td>
<td>33</td>
<td>0.55</td>
<td>0.20</td>
<td>1.57</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Place</td>
<td>District</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>----------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bumadu</td>
<td>Bundibugyo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.01</td>
<td>1.34</td>
<td>3.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kalera &amp; Kansili</td>
<td>Bundibugyo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.42</td>
<td>1.23</td>
<td>2.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinyante Central &amp; Bandibakerere</td>
<td>Bundibugyo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.80</td>
<td>0.84</td>
<td>1.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Village</td>
<td>Bundibugyo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.51</td>
<td>0.59</td>
<td>1.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hakitengya / Bunyaruuta / Bunyambwa / Bundikatiga</td>
<td>Bundibugyo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.84</td>
<td>1.23</td>
<td>2.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kirumya - Kikarigyo</td>
<td>Bundibugyo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.44</td>
<td>-</td>
<td>1.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rwebinyonyi in Ntoroko</td>
<td>Ntoroko</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.00</td>
<td>1.13</td>
<td>2.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nyakaziba in Kabarole</td>
<td>Kabarole</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.10</td>
<td>0.70</td>
<td>1.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Paul PS in Kabarole</td>
<td>Kabarole</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.10</td>
<td>0.63</td>
<td>1.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kasisi TC</td>
<td>Kabarole</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.10</td>
<td>0.86</td>
<td>1.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kasunga TC</td>
<td>Kabarole</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.35</td>
<td>0.47</td>
<td>1.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mabaale - Kitumba - Kyakaguza</td>
<td>Kabarole</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.20</td>
<td>1.38</td>
<td>3.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### SUMMARY SCOPE FOR THE WESTERN ST - INTENSIFICATION PROGRAM

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>District</th>
<th>Voltage, kV</th>
<th>MV R/L, km</th>
<th>LV R/L, km</th>
<th>LV R/L, km</th>
<th>25 1-ph</th>
<th>25</th>
<th>50</th>
<th>100</th>
<th>200</th>
<th>315</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nyakisabu in Kyanya</td>
<td>Kasese</td>
<td>33</td>
<td>0.10</td>
<td>1.11</td>
<td>2.59</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Kasemire in Kyondo</td>
<td>Kasese</td>
<td>33</td>
<td>0.50</td>
<td>1.43</td>
<td>3.32</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Karitusi Village in Rusese</td>
<td>Kasese</td>
<td>33</td>
<td>0.10</td>
<td>0.20</td>
<td>2.10</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Kafunzo &amp; Kankole in Masheruka</td>
<td>Kasese</td>
<td>33</td>
<td>0.20</td>
<td>1.68</td>
<td>3.92</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Kyarugomoka</td>
<td>Kasese</td>
<td>33</td>
<td>1.20</td>
<td>0.90</td>
<td>2.10</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Bikone in Kyanya</td>
<td>Kasese</td>
<td>33</td>
<td>0.45</td>
<td>0.98</td>
<td>2.30</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Maliba II</td>
<td>Kasese</td>
<td>33</td>
<td>2.50</td>
<td>3.12</td>
<td>7.28</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Mughete &amp; Kasithu Villages in Kyrumba</td>
<td>Kasese</td>
<td>33</td>
<td>4.50</td>
<td>4.14</td>
<td>9.66</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Kigando II in Kisinga</td>
<td>Kasese</td>
<td>33</td>
<td>1.00</td>
<td>0.93</td>
<td>7.67</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Ndughuthu &amp; Katooke in Bugoye</td>
<td>Kasese</td>
<td>33</td>
<td>3.30</td>
<td>2.40</td>
<td>5.60</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
10 APPENDIX 2: DESCRIPTION OF THE PROJECT AREAS

10.1.1 MUBENDE AND MITYANA PROJECT AREAS

The villages in Mubende district included in the grid intensification scope are Kibaale Trading Centre (TC), Kibuye TC, Busasi TC, Bigaga TC, and Kinanzi TC. Residents expressed keen interest in the proposed rural electrification project during interviews conducted among the project affected communities.

The trading centres where the schemes are planned to be implemented have no sensitive ecosystems. The areas are building up and no forests or wetlands will be affected by the project. Project area has few permanent and semi-permanent structures very close to each other. No woodlots or wetland. Food crops along the road that may be impacted during project implementation include; newly planted bananas, beans, maize. Trees in the project areas that may be affected include jackfruit and mango. All the project areas include trading centres and all along the main road on the existing Mubende - Kyenjojo HV line. The area consists of small structures used as shops and homes extending slightly deeper from the main road.

Over 70% of the population depend on subsistence farming as the main source of livelihood and it is mainly women involved in cultivation although they do not necessarily have ownership of the income generated as a result of agriculture. The rest of the population depends on employment income, trading and cottage industries. Maize is the major crop produced in the district both as food crop and cash crop, followed by Bananas (Matooke), cassava, beans, sweet potatoes, banana bear, groundnuts, Irish potatoes and sweet bananas. Introduction of electricity would help women, youth as well as men get involved in other income generating activities that rely on electricity such as saloons and shopkeeping that can boost the families’ income streams.

Industry activity, in as far as it contributes to income generation, is still limited in the district, and is particularly located in urban centers along the hydro-electricity grid. There are small-scale industries involved in the processing of agricultural products, mainly coffee, tea and maize. There are also small-scale factories for artisans engaged in metal fabrication, woodwork, handicrafts and clay works.

It was expressed by a number of residents of Bigaga Trading Center that maize mills in the area had been abandoned due to the lack of electricity. They used to use diesel which made their production costs too high to continue in the business. In Kinanzi TC, farmers have to travel a six kilometer journey to have their maize milled and this is mainly done by women and children. Power extensions in these areas will obviously save time for women and children.

In Busasi village residents requested that power be extended to the main primary school (Ndama Progressive nursery and primary school) in the area which serves 80% of the pupils in the area and has no power. Similarly, in Balwenda Village, Kasambya Parish is Mpara Secondary school facing the same challenge. It was generally agreed that electrification of these schools would improve performance and safety of the school goers.

10.1.2 KYEPEGWA AREAS

All the project areas include trading centres and all along the main road on the existing Mubende - Kyenjojo HV line. The area consists of small and semi-permanent structures used as shops and homes extending slightly deeper from the main road.
The trading centres where the schemes are planned to be implemented have no sensitive ecosystems\textsuperscript{2}. The areas are building up and no forests or wetlands will be affected by the project.

Majority of the population depends on subsistence farming as the main source of livelihood. The main cash crops grown are tea and coffee. Food crops grown include bananas, cassava, and beans. There is a lot of shop keeping and bar tending in Balendwa village as an alternative means of livelihood. These too would be economically boosted with the presence of power although for bars it may be socially unproductive. The average income levels are between UGX 500,000 - 800,000 per harvest season. Those involved in maize milling complained that the nearest mills are 3kms away but the power supply is so unreliable; the reliable power is in Kyegegwa District which is 10km away.

The water pumps in Kidongo TC are currently powered by diesel which makes operational costs too high making the water supply unreliable. This has implications on gender since it is mainly women and children that traditionally fetch water. Electricity would be a cheaper and more reliable alternative for the residents. According to the Chairman LC1, Mr Mugume Vincent, the local health center - Balwenda Health Center has no power; people are therefore forced to travel three kilometers to access laboratory services and surgical procedures that require power. The extension of electricity to this health centre will improve health service delivery including maternal and child health services.

10.1.3 BUNDIBUGYO AND KASESE AREAS

The villages within this scope include Kabutabule, Goone, Mutunda, Bundikuyali-Karere, Kasiri, Butogo, Picfare, Nyakakindo 1, Busalu Central, Kinyante II, Kinyante I & II, Dumba, Bunyaluta

\textsuperscript{2} Fragile ecosystems are important ecosystems, with unique features and resources. Fragile ecosystems include wetlands, mountains, rivers etc.
I, Bundirume, Hakibale, Saracity, Kiyombya and Kikalijo. The Bundubugyo project area has very challenging terrain and areas with isolated homesteads. Crops will be affected and they include cocoa farms, cassava and coffee.

Whereas in Kasese the physical environments vary, Kantusi Village in Rusese has a flat area with no sensitive ecosystem. Very fertile soils and trees can be avoided. Some crops will be affected like bananas, beans, maize but they could wait for the crops to be harvested. There are many settlements and small shops packaged to be connected; there are no defined roads (mainly footpaths and gardens); Maize and cassava milling done all the way to Bwera.

Kagando II are is hilly and challenging terrain; no sensitive ecosystem, two primary schools (Rwesororo and Nyamugasana) and Nyamugasana Baptist Professional school.

Kisinga TC is very densely populated with a university opening soon close by. Small stream close by where poles will be erected.

Kasemire / Kyondo area has many homes close to each other and many coffee plantations will be affected and coffee factory

Mughete village has a Church, schools, teacher resource centre, trinity vocational (all in close proximity). There is a Coffee and cassava factory using diesel engines

But in general, the trading centers where the schemes are planned to be implemented have no sensitive ecosystems. The areas are building up, near the roads and no forests or wetlands will be affected by the project. However, the areas are hilly.

Typical settlements in Bundubugyo district

Subsistence agriculture is the main income earner in the project scope with majority of households obtaining their livelihoods from it. The households obtain food and cash income through cultivation of bananas, sweet potatoes beans, maize, cassava and groundnuts. The major cash crops are cocoa, coffee, palm oil and vanilla with cocoa being the most grown.
Almost every household in the area has cocoa plantations which is their main source of income. A few rear cattle and practice fishing.

A typical cocoa plantation in Bundibugyo district

The social services in Mutunda village face the lack of electricity as the major challenge. The nearest Health Center III which is one and a half kilometres away is not powered. The local primary school, Bundimbuga PS, and the secondary school which is about three kilometres away are also not powered.

From the various village discussions held with communities it was clear that they were anxiously looking forward to receiving electricity with the hope that it will greatly improve their livelihoods. A number of residents stated that besides cocoa processing, they would like to engage in cottage industries such as welding, saloon businesses and entertainment centres. The women who are currently mainly involved in agricultural production expressed their desire for electricity as a means to enable them participate in other income generating activities such as saloons and soap production. This they said would increase their households’ income streams. From the engagements, it was noted that the majority of the population that participated in the exercise was very youthful. The youth were also upbeat that introduction of power would help boost their productivity.

In Hakitala trading centre that serves Kijanjaba I & II in Kisuba Sub County one PAP Mr Mutorobo Sunday was willing to offer land freely to erect the transformer poles (Refer to the ARAP that was done alongside this ESMP for signed consent forms). Residents however requested to have the access paths repaired as part of Corporate Social Responsibility of the project.
Members of a village SACCO meeting. They started manufacturing soap (displayed on the table) on a small scale. They were excited about the upcoming project stating that it would greatly improve on their production processes.

10.1.4 KABAROLE DISTRICT

Kyakaguza TC, Kyamaiba, Musindika Villages are the project areas in this intensification scope. The PAPs interviewed said they were ready to receive the project and informed REA that they had already written to REA through their local council chairmen requesting for power and consenting as a community to have poles pass through their land with no expectation of compensation (Refer to the ARAP that was done alongside this ESMP for signed consent forms).

The trading centres where the schemes are planned to be implemented have no sensitive ecosystems. The areas are building up, near the roads and no forests or wetlands will be affected by the project.

Residents in the proposed project area are mainly involved in agriculture. The main crops grown include tea, coffee, cassava, bananas, vegetables including tomatoes, and greens. Livestock keeping is wide spread and goats, pigs and dairy farming and commercial poultry farming are big enterprises in the district. The locals stated that they would use the power to process and add value to their agricultural produce so as to boost their incomes e.g. pasteurizing milk and cheese making.

Petty trade is dominated by men while the women settle for agriculture as the main livelihood. Women and men in both the rural and urban areas also derive a livelihood from selling foodstuffs such as cassava, sweet potatoes, greens, and matooke in markets. Selling of food stuffs, second hand clothes, charcoal and working in restaurants are also major sources of livelihoods for women. Women interviewed said that they would use opportunity to start other businesses like
flour production from maize milling. Men were more interested in welding, opening entertainment centers and shops which sold refrigerated drinks.

Residents airing their views during a village meeting

11 OVERALL GENDER AND EDUCATION ANALYSIS FROM ALL THE DISTRICTS IN THIS SCOPE

Gender and education issues are intertwined and are similar in all four districts. Women generally play a major role in agriculture and they are mainly involved in food production despite lack of control over capital resources and limited access to land. They generally lack gainful employment opportunities or alternative sources of income compared to men because culturally women are expected to work in the gardens even though they are not expected to own land. Land is seen as an inheritance for the males in the family since the women are expected to be married off.

This has left women vulnerable financially as compared to the men because even though they are the ones who grow most of the produce for sale, it’s their husbands in most cases who sell it and keep the money made. Women have no say in the financial decision making process for the household.

There is a general poor performance among school going children in the districts within the proposed project areas. Boys are favored more than girls when it comes to access to education because the societal expectations of the gender roles of the girl child are that they are supposed to do all the household chores in preparation for marriage as opposed to attaining a formal education. Even some mothers among people interviewed were of the view that education is mainly for boys since girls are prepared for marriage. Girls are therefore overburdened at home in terms of their gender roles, they do most of the household chores and end up having no time to do homework and revision.
School dropout rate for girls is much higher than that of boys due to among others, early pregnancies, early marriages for girls, domestic labor and absenteeism from school on market days leading to poor performance and eventual disinterest in education; poor attitude towards education by parents. With electricity, it is hoped that this trend will be reversed.