



Republic of Uganda

Ministry of Water and Environment

Electricity Access Scale-Up Project (EASP)

Project ID: P166685

Supply, Installation and Commissioning of 40 Solar Photovoltaic (PV) Energy Packages for Water Supply Schemes

Lot 4: Supply, Installation and Commissioning of 10 Solar Photovoltaic (PV) Energy Packages for Water Supply Schemes in Kyanvuma, Kyere, Kamod, Mkongoro, Abim-I, Losilang-1, Karenga, Irii, Alakas and Nakapiripirit.

Procurement Reference No: MWE/SUPLS/23-24/00007/4

VOLUME 5 – ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

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List of Acronyms

EASP	Electricity Access Scale-Up Project
ESMMP	Environmental and Social Management and Monitoring Plan
ESMP	Environmental and Social Management Plan
HSE	Health, Safety & Environment
MEMD	Ministry of Energy and Mineral Development
MWE	Ministry of Water and Environment
NEMA	National Environment Management Authority
PCU	Project Coordination Unit
PPE	Personal Protective Equipment
PS	Permanent Secretary

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1. Introduction

1.1 Introduction

The supply and installation of solar energy packages under the Electricity Access Scale-up Project (EASP) will have some environmental and social impacts. The environmental and social impacts have been identified in this chapter, and an Environment and Social Management Plan has been prepared. Mitigation measures to minimize the environment and social impacts are proposed in this ESMP.

This ESMP outlines mitigation measures, accountability, monitoring and institutional arrangements for environmental management of the Project. The ESMP also provides information on environmental decisions which need to be made during the design, construction and operation phases of the Project. It provides key performance indicators for evaluating efficiency of mitigation and management measures and suggests actions that need to be taken to achieve the desired Project outcomes.

The major purpose of ESMP is to

Document key environmental and social issues, the actions to be taken to address the identified social and environmental issues, impacts and opportunities adequately

- a) Take any actions to maximize environmental or social benefits
- b) Develop a schedule and person responsible for implementation and monitoring
- c) Estimate of the associated costs with the implementation of actions

Monitoring is necessary to avoid negative effects during construction and operation of the proposed project and achieve sustained environmental compliance. The ESMP framework addresses the following key components:

- Environmental management policies and systems;
- Mitigation plans, procedures, and programmes;
- Monitoring activities;
- Implementation schedules and cost estimates; and,
- Plans for integrating the EMMP within the overall development plan for the project.

In the ESMP, the proposed timeframe for monitoring every environmental issue or impact is given in the same cell as the individual to collect monitoring information. The estimated cost (for both the monitoring process and corrective measures) is given in the same cell as the proposed method/tool(s) to be used. However, since some of the mitigation measures are to be executed during the construction phase, the contractor will have to incorporate exact cost estimates into the construction financial proposal.

All project personnel have a responsibility for their own environmental performance and compliance with the direction of the ESMP and national environmental legislation. There will be also a need to provide environmental awareness and training to all

project personnel, the objective of the environmental awareness and training is to provide personnel working on the Project with:

- An understanding of what their responsibilities are as outlined in the ESMP;
- A means of developing a culture of compliance with the Project environmental requirements; and
- A means to improve the environmental awareness of the workforce through the education of Project field personnel.

1.2 Project Description

1.2.1. Project Rationale

The Government of Uganda through the Ministry of Water and Environment (MWE), with the support of the World Bank is implementing the EASP to contribute to efforts to meet national electricity access targets.

The overall objective of the EASP Water component is to assist the Ministry of Water and Environment (MWE), through the Directorate of Water Development (DWD), in improving the water supply service and coverage, by identifying the least cost energy solutions to the communities where water schemes have been or are to be installed.

There are a number of piped water supply systems that essentially need energy for pumping. Energy from the grid, mini-grid, thermo-diesel, solar PV pump or wind pump may be used. Whether one or the other source of energy is more appropriate depends on a number of technical factors including the total lift required, number of people expected to be served and the total amount of water needed per day. Other factors include cost (initial and operating), maintenance requirements, availability of parts and service etc

1.2.2. Project Objectives

The objective of the water sub-component of the EASP III project is to supply, install and maintain solar energy packages in 11 water supply schemes in Uganda.

1.2.3. Activities and Work Plan of the Project

The activities of the project are given below.

Activity 1.1: Procurement of components of solar energy packages.

Activity 2.1: Installation and commissioning of solar energy packages.

Activity 3.1: Defects Liability monitoring and Project closure

Table 1-1: Project Work Plan

Activity	Duration (months)											
	1	2	3	4	5	6	7	8	9	10 - 12	13-24	
Activity 1.1: Procurement of components of solar energy												

Activity 1.2: Installation and commissioning of solar energy packages.												
Activity 1.3: Defects Liability monitoring and Project closure												

1.2.4. Project Management Arrangements

The project management arrangement is shown in Figure 1. The Permanent Secretary, MWE has overall responsibility for the Water component of the EASP. There is synergy with the Ministry of Energy and Mineral Development (MEMD) who have overall responsibility for the EASP. The Project Consultant is supervised by the EASP Project Coordinator. The Supply and installation of the solar energy packages is to be supervised by the Project Consultant.

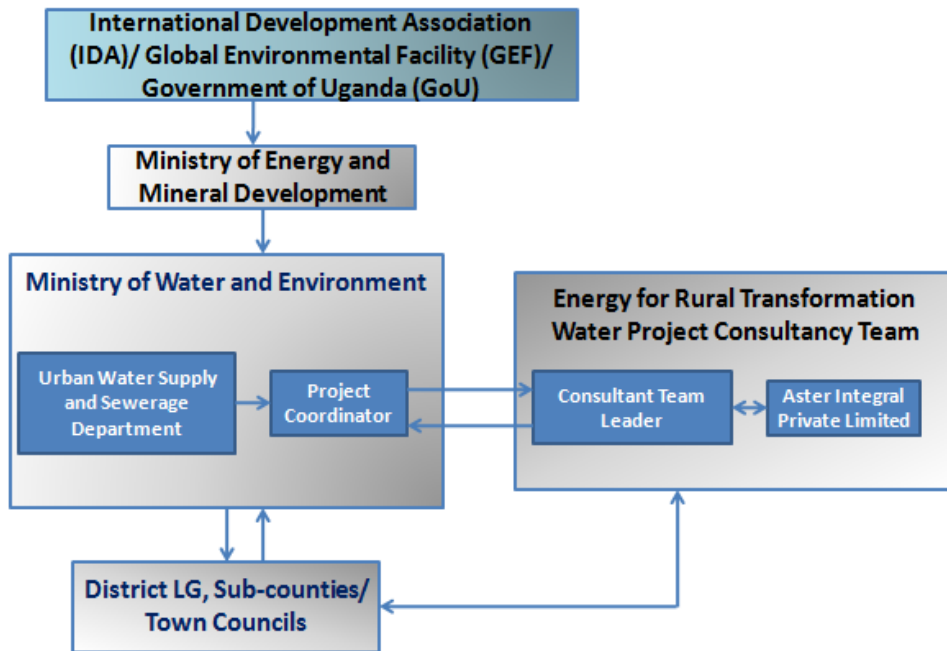


Figure 1-1: Project Management Arrangement

The roles of the project management team are given in Table 1-2

Table 1-2: Roles of the Project Management Team

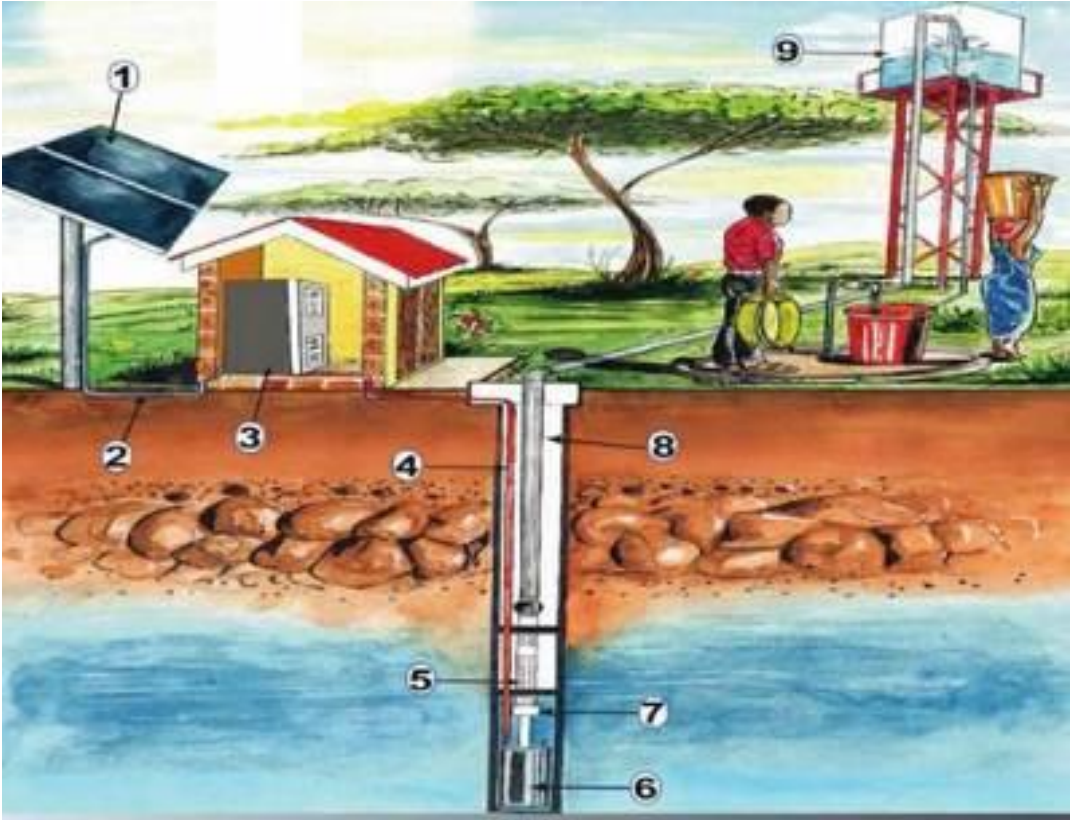
	Position	Role
1	Permanent Secretary (PS), MWE	<ul style="list-style-type: none"> Overall responsibility for the Water component of the EASP III project.
2	Manager EASP, MEMD	<ul style="list-style-type: none"> Overall responsibility for the EASP project.
3	Commissioner Education Planning and Policy Analysis (CEPPA)	<ul style="list-style-type: none"> To ensure the objectives of the EASP project are in line with the objectives of the MWE.

4	Monitoring and Evaluation Officer EASP III Project Coordination Unit (PCU)	<ul style="list-style-type: none"> To monitor the deliverables of the project and ensure that they are in line with the objectives of the EASP III project.
5	EASP Project Coordinator	<ul style="list-style-type: none"> To supervise the Project Consultant and Contractor to ensure the project deliverables of each are attained.
6	Project Consultant	<ul style="list-style-type: none"> Design of solar energy packages. Supervision of installation and commissioning of solar energy packages.
7	Contractor for Supply, Installation and commissioning of Solar Energy Packages for Water Supply schemes	<ul style="list-style-type: none"> Procurement of components of solar energy packages. Transportation of components of solar energy packages. Installation and commissioning of solar energy packages.

2. Brief Project Description

The solar photovoltaic (SPV) water pumping system utilises solar energy from the sun, turns it into DC electricity using solar modules, then uses an inverter to turn DC into AC electricity to power an AC motor of an electric water pump. A typical solar water pumping system consists of solar modules, pump controller, electric water pump and balance of system accessories.

Fig. 1: solar water pumping system. components



① Solar Module / Array	Converts Solar/Sun radiation to Direct Current (DC) Electricity
② DC-Electrical Cable	Transports DC power from solar array to the inverter
③ Power Inverter / Pump Control drive.	Receives DC electricity from Solar module, converts it to Alternating Current (AC) electricity to power the 3-phase water pump
④ AC-Electrical cable	Transports AC electricity from inverter/controller to 3-phase water pump
⑤ Submersible water Pump.	Uses AC electric power from the Inverter to pump water. This pump type is submerged under water
⑥ Electrical Motor	It provides force that pushes water out of the well to the tank
⑦ Low level water sensor.	Will turn off the pumping system when the water level in the well goes below the design threshold
⑧ Water Pipe.	The water pumped travels through this pipe to the water storage tank
⑨ Storage tank.	This is where the water pumped is stored. An elevated water tank can provide sufficient gravity pressure to provide adequate water for domestic dwelling.

2.1 Mode of Operation of solar water pumping system

During day-time sun rays fall onto the solar arrays, sunlight is turned into DC electricity (due to the photovoltaic effect) using solar cells/solar module/array. The generated electricity is transported through DC-electric cables to the inverter. The inverter turns the generated DC electricity into AC- 240V/50 Hz, which is transported by AC-electric cables to power an AC motor than runs a water pump delivering water from the well to the reservoir.

Solar PV water pumping systems deliver maximum water volume to the reservoir during peak- sunny days, low water volume during moderate cloudy days and no water during night time or heavy cloudy day times.

3. Policy, Institutional and Legal Framework

3.1 Policy and legal framework

Policies and regulations below are directly related to the proposed project and are intended to ensure that its development and operation are in harmony national environmental standards.

Table 3.1: Policy and legal framework

Policy And Legal	Description
Policy Framework	
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. Therefore, the EIA preparation process was aimed at establishing environmental and social concerns of the proposed RE project and chatting out measures to ensure that the power distribution activities are done along a sustainable path.
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.
The Energy Policy, 2001	The objective of this policy 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, decentralisation and land use. Hence, at the sectorial level the policy strengthens provisions of the National Environment Management Policy 1994 which emphasises the 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 recognises the need to mitigate both physical and social environmental impacts

Renewable Energy Policy for Uganda, 2007	<p>The overall goal of the Renewable Energy Policy is to increase the use of modern renewable energy, so that its proportionate use increases from the current 3.8% to 61% of the total energy consumption by the year 2016.</p> <p>Electricity to be supplied will be hydropower. Therefore, this project will support this policy since hydropower is a renewable energy. Furthermore, the project augments the policy by increasing coverage of usage of renewable energy in the country.</p>
National Gender Policy, 1997	<p>The overall goal of this policy is to mainstream gender concerns in the national development process in order to improve the social, legal/civic, political, economic and cultural conditions of the people of Uganda, particularly women. Thus, in the context of the power sector, this policy aims to redress imbalances which arise from existing gender inequalities and promotes participation of both women and men in all stages of energy project cycle, equal access to, and control over significant</p>
The National Water Policy, 1999	<p>The objective of this policy is to provide guidance on development and management of the water resources of Uganda in an integrated and sustainable manner, so as to secure and provide water of adequate quantity and quality for all social and economic needs, with full participation of all stakeholders and mindful of the needs of future generations. The policy aims to:</p> <ul style="list-style-type: none"> • Promote rational use of water. • Control pollution and promote the safe storage, treatment and disposal of waste, which could pollute water and impact public health.
The National Policy of HIV/AIDS	<p>The National Policy of HIV/AIDS, which has largely been developed along the lines of the International Labour 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 labour 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.</p>

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.
Uganda National Climate Change Policy 2012,	The policy is to ensure that all stakeholders address climate change impacts and their causes through appropriate measures, while promoting sustainable development and a green economy. The Uganda National Climate Change Policy is based on the following priority concerns: adaptation, mitigation, and research and observation.
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 promote agro-processing through 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.

<p>National Development Plan (NDP)</p>	<p>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.</p> <p>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</p>
<p>Legal framework</p>	
<p>The Constitution of Uganda, 1995</p>	<p>Article 39 and 41 of the Constitution of 1995 provide that everyone has a duty to maintain a sound environment. It also stipulates that every person in Uganda has a right to a healthy and clean environment and as such can bring action for any pollution or improper disposal of wastes. This Project Brief is prepared to ensure environmental and settings in the project area are protected. Therefore, under the Constitution, the activities of this Project have to be implemented in a manner that ensures that, environmental and social settings are utilized in a sustainable manner.</p>
<p>National Environment Act, Cap.153</p>	<p>The National Environment Act Cap 153 provides the legal framework for the sustainable management of Uganda’s environmental resources. Section 20 makes it a legal requirement for every developer to undertake an environmental assessment for projects listed in the third schedule of the statute. Electrical transmission lines are listed in paragraph 10 (b). The implementation of the Project will further be guided by the Approval Conditions that shall be issued by NEMA.</p>

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. The Project is consistent with the Act as it provides power to rural community.
The Land Act, Cap. 227	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.
The Water Act, Cap.152	<p>The Water Act, Cap.152, Section 31, Subsection 31 (1) prohibits pollution of water and states that a person commits an offence if, unless authorized under this Act causes:</p> <ul style="list-style-type: none"> • waste to come into contact with any water • waste to be discharged directly into water • water to be polluted
The Public Health Act, Cap. 269	The Public Health Act consolidates the law in respect of Public Health. The act puts a duty on urban and local authorities for matters pertaining to Public Health. The act focuses on nuisances or conditions liable to be injurious/ dangerous to health caused by persons or to persons on premises/ land they occupy or are in charge of. The act in section 79 (1) emphasizes about draining into public sewers. It is forbidden to drain any material likely to interfere with the free flow of the contents of a drain. In general the Public Health Act seeks to protect the health of all citizens including the health of the environment through stipulations about drainage and safety of buildings and activities.

<p>Workers' Compensation Act, 2000</p>	<p>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.</p> <p>The implementation of this RE project must 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.</p>
<p>Occupational Safety and Health Act, 2006</p>	<p>The Act provides for the prevention and protection of persons at all workplaces from injuries, diseases, death and damage to property. Employers must provide for the protection of workers from adverse weather, provision of a clean and healthy work environment, sanitary conveniences, washing facilities, First Aid and facilities for meals.</p> <p>The Act provides for safe access to the workplaces and safe work practices which applies to this project as well.</p>
<p>Local Governments Act, 1997</p>	<p>The Local Governments Act 1997 provides for the decentralization and devolution of government functions, powers and services from the central to local governments and sets up the political and administrative functions of the latter.</p>
<p>The Town and Country Planning Act, 1964</p>	<p>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</p>
<p>Environmental Impact Assessment Regulations, 1998</p>	<p>The procedures for conducting EIAs and guidelines for EIA practitioners and regulatory bodies are stipulated in this document. The guidelines stipulate that the EIA process will be participatory, that is the public is to be consulted widely to inform them and get their views about the proposed investment. 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. In this case, key stakeholders have been consulted in the course of the study and their views have been integrated into the study. It also provides a framework for the preparation of a Project Brief which has been the case.</p>

<p>The National Environment (Wetlands, River Banks and Lakeshores Management) Regulations, 2000</p>	<p>These provide principles for sustainable use and conservation of wetlands, riverbanks and lakeshores. The relevance of these regulations in this study is embedded in the following requirements and institution of measures for protection of wetlands in the implementation of the project in wetland systems in the areas to be traversed by the project.</p>
<p>National Environment (Waste management) Regulations, 1999</p>	<p>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</p>
<p>The Electricity (Primary Grid Code) Regulation 2003</p>	<p>Sections 1 and 2 of the Code contains rules and procedures for the efficient management (generation, transmission and distribution) of the electric supply industry in Uganda, taking into account a wide range of operational conditions that are likely to be encountered under normal and exceptional circumstances.</p>
<p>National Environment (Waste Management) Regulations</p>	<p>Under Regulation 11 (1), no person shall discharge any waste in any or any other segment of the environment except in accordance with guidelines prescribed by the Authority in consultation with the Lead Agency.</p>
<p>The National Environment (Standards for Discharge of Effluents into or Land) Regulations, S.I. No 5/1999</p>	<p>Regulation 4, Sub-regulation (1) states that every industry or establishment shall install at its premises anti-pollution equipment, so that the operations of his/her business do not cause harm to the environment.</p>
<p>National Environment (Minimum Standards for Management of Soil Quality) Regulations, 2001</p>	<p>Section 12 of this Act requires compliance with prescribed measures and guidelines for soil conservation for the particular topography, drainage and farming systems, contravention of which constitutes an offence.</p>

<p>National Environment (Noise Standards & Control) Regulations, 2003</p>	<p>Regulation 9, sub regulation (1) states that no person shall emit or cause to be emitted, or permit the emission of noise resulting from any act specified in sub regulation (2) if that noise is clearly audible at a point of reception or in the neighborhood for more than two minutes or is within the prohibited time in a residential area. Operation of any equipment in connection with construction, shouting is among the acts specified.</p> <p>Regulation 6(1) of these regulations requires that the maximum permissible noise levels from a facility in the general environment specified in Part 1 of the First Schedule as “residential, industry or small scale production and commerce”, shall not exceed 60 dBA and 50 dBA during day and night-time respectively.</p>
<p>Historical Monument Act, Cap 46</p>	<p>This act provides for the preservation and protection of historical monuments and objects of archaeological pale-ontological ethnographical and traditional interests.</p> <p>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;</p> <p>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</p>
<p>National Forestry and Tree Planting Act, 2003</p>	<p>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</p>
<p>The Roads Act, Cap 345</p>	<p>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.</p>

3.2 Institutional Framework

The institutional framework under which the planned project will be implemented involves the following agencies as summarized below:

3.2.1 Ministry of Energy and Mineral Development (MEMD)

The Ministry of Energy and Mineral Development (MEMD) is responsible for the energy sector, dealing specifically with policy formulation, policy implementation and monitoring. 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.

3.2.2 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.

3.2.3 World Bank (WB)

The World Bank (WB) is an international financial institution established by its Articles of Agreement signed by its 189 member countries. WB, like other multilateral development financial institutions, is governed by public international law rather than separate national laws, and is therefore not incorporated nor registered under the laws of any country. WB works directly with governments, government institutions, corporate entities, international organizations and NGOs. As declared in its Best Environmental safeguard policies (IFC), WB is strongly committed to in ensuring that all of its activities are governed by strict rules, procedures and guidelines ensure the utmost regularity, transparency, integrity and legality in all WB"s activities.

3.2.4 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. This project passes through seasonal and permanent wetlands that are under the mandate of the Directorate.

3.2.5 The National Environment Management Authority (NEMA)

NEMA as mandated by the National Environment Act of 1995, is the principal agency for the management of the environment and shall coordinate, monitor and supervise all activities in the field of the environment. NEMA has a cross-sectoral mandate to

ensure that proper environmental safeguards are observed in the planning and execution of all development projects, which means that it reviews and approves all environmental impact assessment reports, referred to in its terminology as Environmental Impact Reviews (EIRs), and monitors project implementation. NEMA has prepared a set of EIA guidelines for the energy sector and potential developers should use these guidelines as supporting documentation project implementation.

The Environmental Monitoring and Compliance Department is responsible for the review and approval of EIAs, post-implementation audits and monitoring of approved projects. Although project sponsors have a responsibility for monitoring their own activities, NEMA carries out its own monitoring largely through district environment officers and environmental inspectors at NEMA's head office.

3.2.6 Local Government Administration Structures

The lower and upper Local Council administrative units in the selected 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 offices taking care of environmental aspects of the project at their levels.

3.2.7 The Ministry of Gender, Labour & Social Development (MGLSD)

MGLSD is the leading and coordinating agency for the Social Development Sector. In collaboration with other stakeholders, MGLSD is responsible for occupational safety, labour relations, community empowerment, protection and promotion of the rights and obligations of the specified vulnerable groups for social protection and gender responsive development, making it a stakeholder during in this project.

4. Presentation of the ESMP Table

Biophysical and Social impact	Proposed Mitigation and Aspects for Monitoring	Monitoring Indicators	Proposed budget	Implementing responsibility	Time Frame
Construction Phase Impacts (Environmental)					
Loss of crops along the project area	<ul style="list-style-type: none"> Project Affected Person (PAP) should be notified about the start of the project at least 3 months in advance so that cultivated crops are harvested Movement of equipment (vehicles, contractors and the entire construction crew) must follow designated pathways or agreed upon access roads The Client should appropriately compensate farmer for crops destroyed by the contractor during construction. -Where possible, the client, contractor and PAP can agree on appropriate way of compensating lost for property 	<ul style="list-style-type: none"> Number of sensitizations conducted with between client and PAP. Evidence of valuation of crops Evidence of reasonable compensation of the affected person Absence of intimidation by the Client and contractor to the affected person Copy of agreement reached on lost property 	Provisional Ugx1,500,000/= however the designated area for the project has less or no crops to be destroyed	MWE (The Client) & contractor shall take the lead. This activity shall be monitored by District Environment Officer, District Valuer District Agricultural Officer, Local Council leaders, Crop owners/PAP Sub-county Chiefs Councillors	3 months before commencing the project and then Continuous until the water project is commissioned.
Loss of trees along the project area	<ul style="list-style-type: none"> With the help of district valuer, the client should appropriately compensate for cleared trees Movement of equipment (vehicles, contractors and the entire construction crew) must follow designated pathways or agreed upon access roads Support the replanting of trees within the footprint of the project area -Where possible, the client, contractor and PAP can agree on appropriate way of compensating lost for property 	<ul style="list-style-type: none"> Number of sensitization meetings conducted between client and PAP or property owner. Evidence of valuation of trees Evidence of reasonable compensation of the affected individual Tree seedlings for replanting purposes Copy of agreement reached on lost property Number of trees re-planted Absence of intimidation by the Client and contractor to the affected individual 	Contractor's budget	MWE (The Client) & contractor shall take the lead. This activity shall be monitored by District Environment Officer, District Valuer, District Agricultural Officer, Local Council leaders, Crop owners/PAP, Sub-county Chiefs, Councilors	3 months before commencing the project and then continuous until the water project is commissioned.

Land acquisition for solar Array	<ul style="list-style-type: none"> • All works should as much as possible be located on lands that are free of any useful crops and trees, households and other relevant infrastructure. • Land for solar array will be acquired using the guidelines as stated by the relevant clauses of the land policy in Uganda, consistent with the land tenure system in the area. • A separate land survey should be carried out for the permanently and partially affected land. • All forms of compensation pertinent to loss of land should be conducted in line with the provision of the Land Act. • Where possible the client contractor can agree on appropriate way of compensating for lost property. 	<ul style="list-style-type: none"> • Land survey reports from the District Land Board. • Land valuer reports • Absence of intimidation by the Developer and contractor to the affected people • Number of sensitization meetings conducted with the PAP (project affected person). • Copy of agreement on lost property 	Provisional Ugx 5, 000,000 just in case purchase of land is required.	MWE (The Client) & contractor shall take the lead. This activity shall be monitored by District Environment Officer, District Valuer District Agricultural Officer, Local Council leaders, Crop owners/PAP Sub-county Chiefs Councillors	3 months before commencing the project and then Continuous until the water project is commissioned.
Vegetation Clearance and spot alteration of land use.	<ul style="list-style-type: none"> • Sensitization meeting should be conducted between client and project affected person (PAP) to prepare them psychologically and to address any concerns at hand. • Access to the site should be done with due care to avoid un necessary damage to vegetation. • Where clearance of trees is inevitable affected persons must be compensated in line with district value rates • Where possible, the client, contractor and PAP can agree on appropriate way of compensating lost for property • Support the planting of assorted plant species 	<ul style="list-style-type: none"> • Number of sensitization meetings conducted with PAP. • Absence of intimidation by the Client and contractor to the project affected person • Copy of agreement on the lost property. • Number of species of plants • Evidence of valuation of tree • Evidence of reasonable compensation of the affected person 		The contractor and MWE shall take the lead. This activity shall be monitored by the District Environment Officer, District valuer, Sub county and Local community & leaders.	1 month before construction and then continuous until the water system is commissioned.
Generation of	<ul style="list-style-type: none"> • Recycle all metallic waste 	<ul style="list-style-type: none"> • Presence of a project area devoid 		The Contractor	Immediately at the

solid waste	<ul style="list-style-type: none"> • All organic waste shall be disposed at the municipal landfills • All plastic waste shall be collected and sent back to factories for recycling. • Human excreta shall be managed by a mobile toilet and later disposed in local pit latrines. 	<p>of metals, wires, papers and sorts of solar electricity transmission waste</p> <ul style="list-style-type: none"> • Presence of waste bins at the site • Presence of mobile toilets at the site. • Absence of waste abandoned at sites. • Presence of well restored site after demolition of structures. 		<p>& The Developer Shall take the lead This activity shall be monitored by Environment Officer, Sub-county environmental Committees Local Council Environment Committees</p>	<p>onset of construction and continuous until commissioning of the water supply system.</p>
CONSTRUCTION PHASE IMPACTS (OCCUPATIONAL HEALTH SAFETY)					
Exposure to solar cables	<ul style="list-style-type: none"> • Only trained and certified workers should be allowed to install, maintain, or repair electrical equipment.. • Deactivate and properly ground live power distribution lines before work is performed on, or in close proximity, to the lines. • Ensure that solar work is conducted by trained workers with strict adherence to specific safety and insulation standards • All construction workers shall be provided with adequate Personal • Protective gear. 	<ul style="list-style-type: none"> • Evidence of electrocution among contractor staff, or the local community • Presence of sagging wires and highly exposed areas • Concerns from the local community • Presence of adequate PPE • Qualification of the contractor 		<p>The Contractor and MWE</p>	<p>Continuously throughout construction and as need arises during operation</p>
CONSTRUCTION PHASE IMPACTS (COMMUNITY HEALTH SAFETY)					
Psychological impacts	<ul style="list-style-type: none"> • -Using several avenues including local and national media such as radio stations, TVs and sensitization meetings, all affected people, fears need to be addressed prior to compensation . • -The intentions of land acquisition should be purposed to the construction of water pumping system 	<ul style="list-style-type: none"> • Level of awareness depicted by the local people in regard to the project. • Number of sensitization meetings conducted per village. • Extent of curiosity expressed by the locals and the affected people. • Presence of intimidation • Willingness to talk about and criticize the project by the affected people. • Number of conflicts and disputes from 		<p>MWE shall take the lead. Other shall include Politicians at the district and sub-counties, Environment Officers Community Development Officers Councilors Local Council Leaders RDCs office</p>	<p>6 month before construction of the water project and continuous until 2 years after commissioning of the water project</p>

		the affected people on the project			
Theft of project materials and equipment	<ul style="list-style-type: none"> • Employ private security guards • Encourage community policing in order to identify the culprits and to ensure safety of project materials. • The Contractor should put in place an internal control system to curb cases of theft • Contractor should collaborate with the local security in the area to curb theft. • Fence off the area under construction 	<ul style="list-style-type: none"> • Minutes for collaboration meetings with DISO, RDC and Sub-county. • Presence of employed private security with a mix of locals • Presence of the fence around the site. • Evidence for installation of alarm system 	Cost to be catered for project budget.	Contractor shall take the lead. Other shall include RDCs office DISO Local Council Leaders	Continuously through circle and beyond
Exploitation of Workers	<ul style="list-style-type: none"> • For unskilled jobs, give the local first priority • Procure all staff under a well-recognized contract • Workers shall be given appointment letters indicating their obligations as employees. • All workers shall be entitled to free medical care if the cause of the injury or sickness is as result of working at the project or any activities of the Contractor or Developer. • Workers need to be sensitized of their rights and need to be represented by a mediator in the affected districts through the office of the labour officer. • -The company should employ preferably an onsite Environment Health and Safety Officer. 	<ul style="list-style-type: none"> • Number of local people working with the contractor • Presence of written contracts for all employees. • Evidence that workers are entitled to work for 8 hours. • Presence of appointment letters for salaried employees. • Presence of identity cards for all employees. • Evidence that all workers are paid in accordance with their respective contracts and on time. • Presence of a labour union for the workers. • -Presence of free medical services for staff. • -Attitude of workers and the surrounding community. • -Presence of an onsite Environment, Health and Safety Officer. 		The Contractor MWE District Labour Officer	Immediately at the onset of construction and monthly during construction. Quarterly during operation phase
Influx of people seeking for work	<ul style="list-style-type: none"> • Prepare a recruitment plan • Recruit workers from the project area 	<ul style="list-style-type: none"> • Number of local people recruited both skilled and un skilled • Number of indiscipline cases 	Contractors/client budget	The Contractor & The Client (MWE) Shall take the lead Others include:	Weekly during construction and continuous throughout project

	<ul style="list-style-type: none"> Strengthen local authorities to handle cases of indiscipline 			<ul style="list-style-type: none"> -District labour officer -CDOs -Sub-county heads (LC III and Chief) 	circle
Impact on Physical Cultural Property	<ul style="list-style-type: none"> Relocate shrines and graves in accordance with the existing rituals and norms of the affected society. Chance finds discovered in the process of construction should be reported to Uganda Museum. All imported staff on the contractors or Developer's team shall be reported to the Local Leaders. They will be briefed, guided and shall be expected to abide by the by laws of the villages where works on the project will be on-going. 	<ul style="list-style-type: none"> Evidence that all physical cultural features in the project were relocated. Attitude of the local community towards the contractor and staff. 		<ul style="list-style-type: none"> The Contractor The Developer District Environment officer Local leaders and elders Religious 	3 months before construction
Public Health concerns	<ul style="list-style-type: none"> Workers will be sensitized on protective behaviour and practices during work. -The project contractor is also advised to employ services of an independent --NGO engaged in HIV/AIDS activities to sensitize and treat both the project workers and the communities around the work site. This should be included in the bill of quantities during procurement. Monitor communities during high-risk seasons to detect and treat cases. Excessive alcohol abuse should be discouraged as a company policy. 	<ul style="list-style-type: none"> Number of HIV/AIDS sensitization meetings. Code of conduct document. -Evidence that workers are aware of their health and social responsibilities. Number of health awareness trainings undertaken among staff and the local community. Attitude of staff and the community on health risks posed by company operations. Records of sicknesses among staff. Presence of company policy prohibiting excessive abuse of alcohol. Number of workers tested for HIV/AIDS 	Provisional shs2,500,000/= for public sensitization on HIV/AIDS and sanitation	<ul style="list-style-type: none"> MWE The contractor District Health Inspector Health committees at the sub-counties 	Every month during construction and quarterly during operation

5. Requirements for implementation of the ESMP

5.1 Client's Commitments and Resourcing

In order to discharge its commitments with respect to management of social and biophysical impacts of the project, the Client (MWE) will designate a suitably qualified and experienced Environmental Manager. The Environmental Manager's key responsibilities will include the following:

- Point of contact for the Contractor's Site Environmental Officer;
- Ensuring that all environmental protection procedures are followed as planned;
- Review and approval of the Environmental components of the Construction Contractor's Project Plan;
- Environmental Auditing
- Liaison with members of the public, local organizations and governmental and non-governmental organizations;
- Liaison with other businesses potentially affected by the project; and, Reporting results of mitigation and monitoring activities to NEMA, the lenders and other applicable parties.

The Environmental Manager shall report directly to Project Coordinator, and will be provided with sufficient support staff and facilities to allow all of MWE's environmental commitments to be discharged appropriately. The Environmental Manager and his team will be members of the overall Implementation Team for the project.

Social and Biophysical impacts and mitigation activities fall into two broad areas: the construction environment and the operational environment. A Task Manager will be appointed to deal with each of these. Construction environment issues are those short-term issues arising directly from construction activities, e.g. traffic, noise, air quality and waste issues, and will be managed by the Construction Environment Task Manager. The Operation Environment Task Manager will be responsible for management of long-term and non-construction related issues including fisheries and agriculture.

The Community Liaison Manager will be responsible for implementing the ongoing consultation and resultant EMP development requirements during project construction and operation.

5.2 Contractor's Commitments and Resourcing

The Contractor will designate an appropriately experienced and qualified Site Environmental Officer (SEO), who will be responsible for implementation of the measures set out in the Contractor's EMMP. The SEO's key responsibilities will include the following:

- Ensuring that all environmental protection procedures are followed;

- Co-ordination of environmental monitoring of site-related activities required to discharge the Contractor's obligations;
- Liaison with and reporting to the Environmental Manager;
- The monitoring of hazardous substances on-site to ensure that the possibility of accidental release is 450ounselin;
- Ensuring, where appropriate, that monitoring equipment required for the
- execution of the obligations of the Contractor is calibrated and maintained as required;
- Promoting on-site environmental awareness;
- Liaison with other businesses and industry; and,
- Maintaining an Environmental Management System

There may be occasions where the Contractor considers that outside bodies are required for specialist monitoring, training or consultation purposes. The MWE Environment manager will be responsible for contacting any external parties, while the SEO shall co-ordinate any site-related monitoring conducted by those outside bodies and all monitoring results provided to the Contractor shall be reported directly to the Environmental Manager.

The Environmental Field Inspectors will be appointed during the construction phase, and will be local staff with relevant environmental/engineering experience, who are fluent in local languages. The number of field inspectors may be adjusted upwards according to the environmental issues on-site.

The SEO will have overall responsibility for the activities of the Contractor's Environmental department. On a day-to-day basis the emphasis of his work will be upon liaison with MWE's Environmental Manager, and with relevant authorities, local residents and NGOs on environmental issues (i.e. external liaison). The responsibility for day-to-day management of the field team will be devolved to the Environmental Field Coordinator. The field team will comprise Field Inspectors, supported by drivers and labourers. The Field Inspectors will maintain a permanent presence onsite, carrying out routine checks of operating procedures and environmental monitoring as specified in here in this ESIA report.

5.3 Environmental Auditing and Reporting

Auditing of the environmental compliance of the project will be carried out at two levels with IFC performance standards as a key guideline: internal and external. MWE will carry out annual internal audits of its compliance with the requirements of the ESMP, and any other environmental requirements, such as those imposed by NEMA and/or the international lenders. The responsibility for implementing these audits will lie with the Environmental Manager, who may elect to employ external consultants.

External audits of the Contractor's environmental compliance will be carried by MWE, and potentially by representatives of NEMA and the international lenders. It is a requirement of NEMA and the lenders that annual environmental reports ('self-auditing') be submitted for review. The Environmental Manager will be responsible for compiling and submitting these reports, and will consult with NEMA to determine any additional mitigation measures or monitoring that is considered to be required.

Self-audit reports will be compiled from internal and external audits carried out by both Client (MWE) and the Contractor. It should be noted that the ESIA Regulations and the National Environment (Audit) Regulations require the names and qualifications of persons carrying out 'self-auditing' to be approved by the Executive Director of NEMA, and for these persons to be duly certified by NEMA before commencing work. Therefore, the Environmental Manager and the SEO will have to be approved by NEMA before official appointment.

In addition to these formal, annual, reports, the Contractor will be required to report quarterly to MWE on the implementation of its ESMP. The Client/MWE will use this information and its own to compile quarterly reports for the overall project, which will be submitted to the Social and Environmental Review Panel and Social and Environmental Panel of Experts for review and feedback.

5.4 Social and Environmental Oversight

The project will have on-going accountability to, and will be monitored by, both the lenders and NEMA (the latter via the District Environmental Officers for the recipient districts). However, in order to ensure that issues are identified early, and resolved in an equitable fashion, MWE will undertake to support independent oversight of the project at several levels, through a Social and Environmental Panel of Experts may fit from time to time.

It is a usual requirement of lender policies that the Project Sponsor engages a Social and Environmental Panel of Experts (PoE), to provide on-going oversight of compliance with the relevant Safeguard Policies and Performance Standards. MWE will thus have to engage the PoE for the development of all water pumping facilities, as required by the financiers.

6. Grievance Redress Mechanism

During implementation of the project disputes may arise between the Contractor and the Water supply schemes. Grievances may arise from Water supply schemes who are dissatisfied with the solar energy packages assigned to them, workmanship and professionalism of the Contractor during the installation or buildings that are not included in the list of buildings in which to install solar energy packages. It is therefore necessary to establish channels through which aggrieved parties can file their complaints to ensure successful project implementation. The channels of communication are detailed in a grievance redress mechanism. The grievance redress mechanism should be appropriate, accessible, and established to resolve disputes in connection with project activities. This section presents a grievance redress mechanism to facilitate receipt and resolution of concerns and complaints from Water supply schemes about the project's environmental and social performance.

6.1 Objectives of the Grievance Redress Mechanism

The objectives of the grievance redress mechanism are:

- i. to provide a channel through which Water supply schemes and the communities can present their concerns and complaints in a transparent way,
- ii. to provide a system of identifying issues and risks early and addressing them in a timely manner before they become larger and more difficult and expensive to manage or resolve,
- iii. to analyze, address, follow up and respond to grievances and
- iv. to promote a mutually constructive relationship between the project and the Water supply schemes.

6.2 Procedures of the Grievance Redress Mechanism

The grievance redress mechanism will be established at the beginning of project implementation and the Water supply schemes will be sensitized on the objectives of the grievance redress mechanism, and how to access and use the grievance redress mechanism. This will be done during a training session to be held for representatives of the Water supply schemes, prior to installation of the Water supply schemes. Records of these training session and attendance lists will be prepared and filed by the EASP Project Coordinator.

The procedures in the grievance redress mechanism will seek to resolve issues quickly to expedite installation of solar energy packages in the PPEIs. The stages of the grievance redress mechanism are detailed below.

1. The EASP Project Coordinator with assistance of the Project Manager and the water authority will select representatives to coordinate the grievance redress mechanism for each Water supply scheme. These representatives will be called Grievance Coordinators.

2. Complaints from Water supply schemes on any aspect of the project will be lodged in writing through the Grievance Coordinator, using the grievance resolution form in Table 11.

Table 11: Grievance Resolution Form

Name of Complainant	Sex
Telephone Contact	PPEI
Sub-County	District

Describe the Complaint

.....

.....

.....

.....

Any Supporting document ? Yes/No indicate all parties involved in issue

.....

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.....

.....

.....

Action Taken

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.....

Grievance Documented By

Designation

.....
Name & Signature of Complainant

.....
Date

Dispute Resolution Sheet:

Basic Facts

.....
.....
.....
.....
.....

Resolution/Response

.....
.....
.....
.....

Signed

Name:

3. After registration of the grievances, the Grievance Coordinator will carry out an investigation to verify the authenticity of the grievance. The Grievance Coordinator will resolve the grievance where possible. The decision of action to be taken or resolution of the grievance will be communicated to all involved parties both in a meeting, and in writing.
4. Where the Grievance Coordinator is unable to resolve the grievance, he will report the grievance to the Local authorities (Town Clerk, LC-III. etc) by means of a filled-in Grievance Form. The Local authorities will resolve the grievance where possible, as assisted by the Grievance coordinator/socio-team of MWE. The decision of action to be taken or resolution of the grievance will be communicated to all involved parties both in a meeting, and in writing.
5. Where the Local authority is unable to resolve the grievance, he will report the grievance to the EASP Project Coordinator by means of a filled-in Grievance Form.
6. The EASP Project Coordinator will verify the claims on ground with the assistance of the Grievance Coordinator and resolve the issue. The decision of action to be taken or resolution of the grievance will be communicated to all involved parties both in a meeting, and in writing. If the grievance is unresolved, the Local authorities will write to the Permanent Secretary, MWE seeking redress.

7. All measures will be undertaken to ensure that the grievances are resolved amicably between the concerned parties. The Grievance Coordinator will track grievances that have been escalated to ensure that grievances are resolved within 2 weeks of being lodged.
8. Once a grievance is resolved, the party that raised the grievance will be required to sign the Grievance Resolution Form indicating satisfaction with the resolution. The grievance will be considered as closed once the party that raised the grievance signs the Grievance Resolution Form, accepting the resolution.
9. The Contractor will be required to address grievances immediately and provide timely feedback on grievances. The Grievance Coordinator will be responsible for communicating grievance to the Contractor.
10. In addition to the Grievance Resolution Form, a Grievance Log, shown in Table 12 will be kept by the Grievance Coordinator, indicating the date the grievance was lodged, a brief description of the grievance, actions to be taken and status of resolution.

Table 12: Grievance Log

No.	Date Grievance Received	Name of Person Lodging Grievance	PPEI	Brief Description of Grievance	Officer to Handle the Grievance	Officer Grievance Referred to	Response	Date of Closure of Grievance

6.3 Monitoring and Reporting on Grievance Redress Mechanism

Monitoring and reporting on the grievance redress mechanism should be carried out. The Grievance Log will be submitted to the Consultant monthly and will be included in the monthly progress report from the Consultant. In this way, the Client will be informed of the grievances that have been lodged and the status of resolution of grievances.

The EASP Project Coordinator will review the Grievance Forms and Grievance Log monthly while monitoring implementation of the ESMMP. He will report on effectiveness of the grievance resolution mechanism using the indicators below.

- Knowledge of the grievance redress procedure.
- Number of grievances received, pending and closed, per month.
- Number of grievances closed but not signed off.
- Number of recurrent unresolved grievances.

6.4 Institutional Arrangements and Responsibilities for Implementation of the ESMP

This section presents the institutional arrangements and responsibilities for implementation of the ESMP.

6.4.1 Responsibilities for Implementation of the ESMP

The Ministry of Water and Environment (MWE) will be responsible for monitoring the ESMP. The Contractor will be required to comply with the ESMP and implementation of the respective relevant parts. The EASP, Project Coordinator, MWE, the PCU and the Consultant will ensure that the Contractor complies with the ESMP. The responsibilities for implementation of the ESMP are shown in Table 13.

Table 13: Roles of the Project Management Team

	Position	Role
1	Permanent Secretary (PS), MWE	<ul style="list-style-type: none"> Availing monetary support for monitoring compliance with the ESMP. As the developer, the Ministry will assume overall responsibility for implementing conditions of this ESMP and over the contractor's compliance standards and obligations in the implementation of the ESMP (as well as wider contractual obligations).
2	Project Coordination Unit (PCU) – MEMD	<ul style="list-style-type: none"> Monitor compliance of Contractor with the ESMP. The Environmental and Social Safeguards Specialist shall assume responsibility for ensuring works on the project are undertaken in accordance with the environmental and social safeguards, as well as reporting on compliance with environmental obligations in the project as enshrined in the contract.
3	EASP Project Coordinator	<ul style="list-style-type: none"> Monitor compliance of Contractor with the ESMP.
4	Project Consultant	<ul style="list-style-type: none"> Supervise implementation of mitigation measures by the contractor. Reporting compliance of the Contractor with the ESMP.
5	Contractor for Supply, Installation and Commissioning of Solar Energy Packages	<ul style="list-style-type: none"> Complying with all relevant legislation and adhering to the requirements of the ESMP. The contractors will have a Health, Safety and Environment Officer who will take overall responsibility of the ESMP. Keep records on adherence to the ESMP.

6.4.2 ESMP Reporting Procedures

The Consultant will review compliance of the Contractor with the ESMP. There will be a section in the Consultant's monthly progress report on compliance of the Contractor with

the ESMP. Compliance with the ESMP will therefore be reported monthly. The structure of the report on compliance with the ESMP is given below.

- a) Introduction
- b) Objective of the Monitoring
- c) Current Project Status and Activities at the Time of Monitoring
- d) Methodology of Monitoring
- e) Site Visit Findings
- f) Environment
- g) Waste Management
- h) Proposed Project Action Plan and Compliance Schedule
- i) Conclusions and Recommendations

The monthly progress reports will be submitted to the EASP Project Coordinator, MWE, who will monitor compliance with the ESMP in collaboration with the PCU.

7. APPENDIX

APPENDIX A1: Employee Code of Conduct

A1.1 Policy Brief & Purpose

The Code of Conduct refers to Company expectations regarding employees' behaviour towards their colleagues, supervisors and the community they interact with. The Code of Conduct is designed to anticipate and prevent certain specific types of behaviour; for example, conflict of interest, self-dealing, bribery and inappropriate actions. All employees are obliged to follow the Code of Conduct.

A1.2 Scope of Employee Code of Conduct

The Employee Code of Conduct applies to all workers employed by the Contractor, herein after referred to as employees, regardless of rank in their day to day activities. Contractor's employees are bound by the terms of their contract to adhere to specific guidelines that apply to every work-related space during their work, as such all employees are obliged to know and follow the Employee Code of Conduct.

A1.3 General Employee Conduct

The Company expects its employees to conduct themselves in a professional manner.

Drinking, gambling, fighting, swearing, bullying and similar unprofessional activities are strictly prohibited while on the job.

Employees must not engage in sexual harassment, or conduct themselves in a way that could be interpreted as sexual harassment, for example, use of inappropriate language, keeping or posting inappropriate materials in their work area, dressing inappropriately, enticing or seducing other employees or community members, or accessing or distribution of inappropriate materials from/to other employees or the community.

All employees shall take full responsibility for their actions by being accountable for what they say and do and report any concerns in the workplace.

A1.4 Compliance with the Law

All employees must protect the Company's legality. Legal guidelines refer to all environmental, safety and fair dealing dictations of the local and international law as well as the Company policy for social corporate responsibility. In addition to these, all employees are obliged to refrain from unlawful or offensive behaviour against the Company where its finances, products, assets or public image are concerned.

A1.5 Respects in the Workplace

All employees are bound by the equal opportunity policy of the Company. They are obliged to behave in a respectful manner towards their colleagues by being compassionate, considerate to their rights, dignity and wellbeing, and strictly refrain from any kind of discriminatory behaviour, harassment or victimization. This applies to all work processes, from recruitment and evaluation, to interpersonal relations between employees.

A1.6 Protection of Company Property

All employees should treat the Company's property, whether material or intangible, with respect and care.

Company equipment must not be misused or used frivolously. All kinds of incorporeal property and other elements for which the Company retains ownership, for example, Operation & Maintenance manuals, test certificates, reports and forms, are to be respected and used only within the rights accompanying the duties of each position.

Company facilities and other material property must be used for the purpose that they are intended and not be damaged, abused or vandalized.

A1.7 Professionalism

All employees must abide to certain rules that show integrity and high quality professionalism while executing their duties in the workplace. All employees shall perform their duties with care and dedication delivering what is expected at all times.

All supervisors shall lead by example by providing direction, support and a workplace free of sexual harassment, discrimination and favouritism.

A1.8 Health, Safety & Environment

Management and all employees shall provide and support a safe and healthy environment for internal and external stakeholders and comply with safety, health and environment legislations of Uganda.

Management shall provide Personal Protective Equipment (PPE) for all employees to protect the employees from hazards in the work place. Employees shall be obliged to use the PPEs at all times when in an area defined as a hazardous area and for which the PPE has been provided. Management shall enforce use of PPE in the workplace and non-conformity by employees will be met with disapproval and possible disciplinary action.

Employees shall pay due regard to the environment in executing their duties and shall minimise the impact of their activities on the environment in line with guidelines provided by the Company.

A1.9 Personal Appearance

All employees must follow the dress code and personal appearance guidelines of the Company.

A1.10 Corruption

Employees are strictly prohibited from accepting bribery or gifts for the benefit of any external or internal party. Such behaviour may invoke legal actions that will be damaging for parties responsible.

A1.11 Job duties and Authority

All employees must pay attention to their job duties and fulfil their job duties with integrity and respect towards clients, stakeholders and the community.

Supervisors and managers are prohibited from abusing their authority, but are expected to delegate duties to their subordinates with respect to the competences and workload of the subordinates. Mentoring and motivating are actively encouraged.

All employees are expected to follow supervisors' instructions and execute all their assigned duties with skill and in a timely manner.

All employees shall sign contracts or given appointment letters with clear terms and conditions of work, with the exception of casual labourers.

A1.12 Absenteeism and Tardiness

Employees should adhere to established work schedules. This does not refer to occasional discrepancies that an employee might face that prevent them from following standard working hours or days. It refers to a uniform stance towards the expected times of arrival and departure from work, and the time an employee spends on execution of their duties.

A1.13 Interactions with the Community

All employees shall ensure a conducive relationship with the communities where they are executing

project activities. Employees are strictly prohibited from interacting with the community in an undesirable manner including sexual abuse and enticement of married women or children into inappropriate behavior or sexual activity.

Employees must make timely payment for all supplies obtained from the community, for example, food and water.

Management shall establish a complaints desk where the community members can report offences committed by employees.

A1.14 Conflict of Interest

All employees are expected to avoid any personal, financial or other interests that might hinder their capability or willingness to perform their job duties or be damaging to the Company. Any situation voluntary or involuntary that might be perceived as a conflict of interest must be reported to the appropriate manager.

A1.15 Collaboration

All employees are expected to maintain a climate of friendliness and harmony and endeavor not to disrupt the workplace for the execution of their duties or present obstacles to the work of their colleagues.

All employees shall respect each other's work and efforts.

All employees are encouraged to work as a team to achieve the Company objectives.

A1.16 Communication

All employees must communicate openly and honestly with their colleagues, supervisors or subordinates.

The Company shall establish and ensure the use of proper communication channels to keep employees, clients and other stakeholders informed of matters affecting them.

All employees shall be provided with sufficient information regarding their scope and conditions of work, ethical behavior, company rules and procedures, and Employees Code of Conduct.

All employees must protect confidential information and only share it with those who are authorized to access it.

A1.17 Benefits

All employees are discouraged from abusing the benefits provided to them by the Company, for example, time-off granted to an employee for a specific reason like sick leave, health insurance, facilities and subscriptions.

A1.18 Policies

All employees are obliged to be aware of and follow all the established company policies and procedures.

A1.19 Reporting Unethical Behavior

Should any employee become aware of any unethical behavior or non-compliance of a fellow employee with regard to the Employee Code of Conduct, it is their duty to address it or report it. The Company shall protect employees who report suspected violations of the Employee Code of Conduct, against any form of victimization or occupational detriment, and will make every effort to protect the confidentiality of anyone reporting a breach of the Employee Code of Conduct.

A1.20 Disciplinary Action

Failure to comply with any part of the Employee Code of Conduct will result in appropriate disciplinary action. Disciplinary action shall be transparent, just and equal for all employees.

The employee responsible for non-compliance with the Employee Code of Conduct will be subject to repercussions that vary in regard to the severity of the violation. Possible consequences will include reprimand, detraction of benefits for a definite or indefinite time, demotion, suspension or termination for more serious offences.

Legal action may be pursued in cases of corruption, theft, embezzlement or other unlawful behavior. Management shall establish a functional disciplinary committee with representation from all categories of employees. The disciplinary committee will investigate non-compliance with the Employee Code of Conduct and discipline employees