



# ROGEP ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT (ESRM) STRATEGY

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**ECOWAS CENTER FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY (ECREEE)**

**ET**

**BANQUE OUEST AFRICAINE DE DÉVELOPPEMENT**



## ACRONYMS

BOAD	Banque Ouest Africaine de Developpement/ West African Development Bank
CFIs	Commercial Financial Institutions
E&S	Environment and Social
ECREEE	Ecogas Center for Renewable Energy and Energy Efficiency
ESMS	Environment and Social Management System
ESRM	Environment and Social Risk Management
FIs	Financial Institutions
GBV	Gender Based Violence
IDP	Internally Displaced Persons
ROGEP	Regional Off Grid Electrification Project
GBV	Gender Based Violence
TA	Technical Assistance
OGS	Off Grid Sector
USD	United States Dollars



## Contents

ACRONYMS.....	2
1 Introduction.....	4
2 Principles of ESRM Design.....	5
3 Objectives of the E&S Risk Management in ROGEP .....	7
4 Strategic Environmental and Social Risks in ROGEP operations .....	7
4.1 Key Environmental and Social Risks in ROGEP.....	8
4.2 Expected Positive Environmental and Social Outcomes.....	12
5 Key Components of the ROGEP ESRM Strategy.....	13
5.1 Operational Level: Supporting Systems and Capacity Building for E&S Risk Mitigation in Lending and Grant Finance Transactions.....	14
5.1.1 E&S Capacity Building for ECREEE and BOAD.....	15
5.1.2 E&S Capacity Building for CFIs and Solar Businesses .....	16
5.2 Market-Level E&S Risks and Challenges for ROGEP Implementation .....	18
6 ECREEE Coordination Role for ROGEP ESRM Strategy .....	20



## 1 Introduction

In view of the strategic importance of energy in achieving sustainable development, the ECOWAS Center for Renewable Energy and Efficiency (ECREEE), a specialized technical agency under ECOWAS, is implementing the proposed Regional Off-Grid Electrification Project (ROGEP), with support from the World Bank Group (WBG) and its Lighting Africa Program. ROGEP aims to enhance electricity access in the West Africa and Sahel region, through standalone solar systems (solar lanterns, solar home systems, solar water pumps, solar mills, solar sewing machines, etc.).

While ROGEP is conceived to generate significant positive impacts in the region associated to the improved access to modern electricity services, ECREEE as the implementing agency of the project, has designed this Environment & Social Risk Management Strategy to complement the operational manual with special focus on the risks, mitigation factors and capacity building of stakeholders.

The Strategy is an important element of the overall strategy of ROGEP in creating access to energy in the region. The implementation of ROGEP will be done in a conscious manner so as not to pose any risks to the environment and the society that is expected to benefit. The STRATEGY is to focus on identification, avoidance, mitigation of the risks associated with the operations of the businesses along the value chain including the end users.

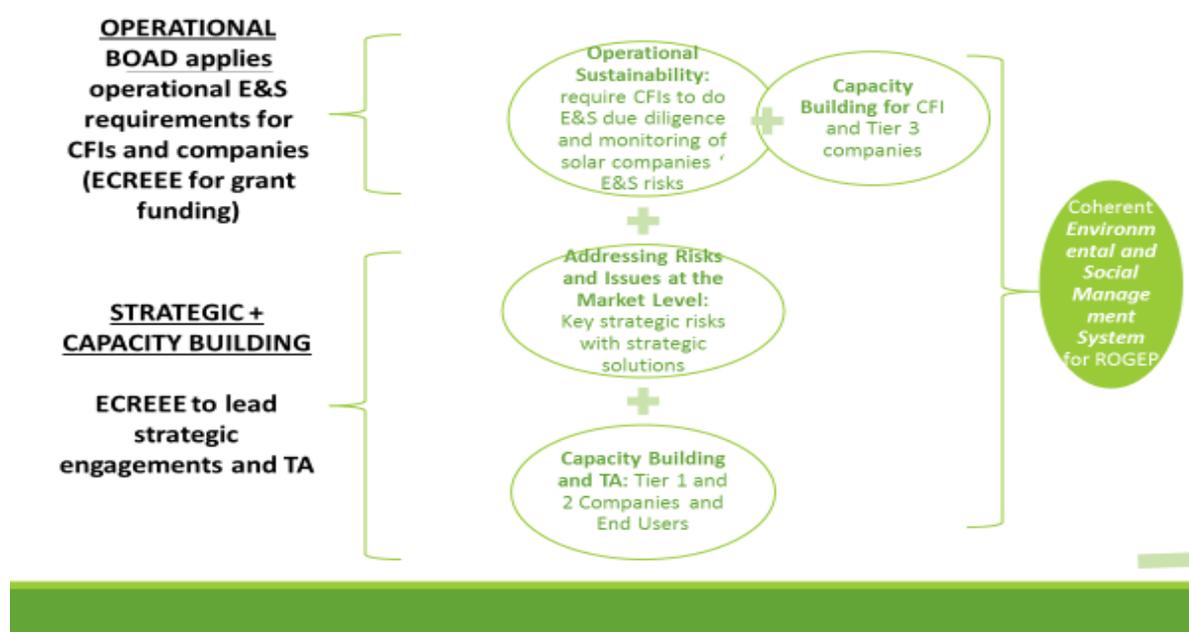
## 2 Principles of ESRM Design

The principles behind the design of the E&S Risk Management Strategy are (Figure 1):

- (a) Environmental and social management operational processes are needed to (i) promote E&S sustainability in lending operations under ROGEP; (ii) avoid, minimize, or mitigate against adverse impacts, mainly through implementing E&S risk management policies, process, and capacity at the level of wholesale lenders (BOAD), participating commercial financial institutions (CFIs), and solar companies; and (c) promote informed decision-making relating to E&S effects
- (b) At the same time, a number of E&S risks and impacts associated with ROGEP implementation can be considered systemic and therefore cannot be dealt with at the operational level alone. Strategic and cross-cutting issues are means to identify and cover specific areas of concern that need to be addressed at the market level and through strategic multi-stakeholder solutions. Examples of such issues include hazardous waste/ batteries, gender impacts, and citizen engagement.
- (c) To promote E&S sustainability, ROGEP will facilitate informed decision-making relating to E&S effects across the various stakeholders through a number of awareness raising, engagement, and capacity building activities. Some of the key stakeholders are the CFIs and solar businesses, but also end users of the solar energy equipment and services.
- (d) Integrate and gradually improve existing systems and knowledge among key stakeholders. Some of the stakeholders may already have in place ESRM systems that may be adequate or need to be improved to capture specific aspects of E&S risks related to the off-grid solar sector. Others may be new to the E&S risk management practices and this will require a lot of engagement including the provision of technical assistance (TAs) with the objective of improving their knowledge on the key issues in E&S and how to develop the tools and implement an ESRM systems to deal with the risks identified.
- (e) ROGEP's key partners in the implementation of Component 2 - Access to finance is BOAD. As regional development banks with existing ESRM systems, ROGEP will rely on these systems to assess the readiness of the CFIs to adopt E&S mechanisms in screening potential businesses. BOAD will also be relied upon to develop specific tools for the screening of the equipment distributors and energy services by the financial institutions.

- (f) During ROGEP implementation will establish and maintain the process of regular monitoring to ensure that adequate documentation is collected and regularly maintained by the stakeholders to demonstrate conformity to the requirements of this Strategy.
- (g) To make this Strategy effective, ROGEP implementation will focus on strategic, cross-cutting issues and the capacity to manage them. This will also involve all the stakeholders to identify better mechanisms of avoiding, minimizing and in some cases eradicating these risks all together.

Figure 1. Principles and Components of the ESRM Design for ROGEP



ECREEE, as the key technical implementing entity responsible for putting in place of this Strategy, shall review the Strategy at planned intervals, to avoid, minimize, or mitigate against adverse impacts of its activities and to ensure its continuing suitability, adequacy and effectiveness. Reviews shall include assessing opportunities for improvement and the need for changes of the environmental management system, including the environmental policy and environmental objectives and targets. Records of the management reviews shall be retained.

### 3 Objectives of the E&S Risk Management in ROGEP

The objective of the ESRM is to ensure that the implementation of ROGEP, across the 19 countries will be carried out in an environmentally and socially sustainable manner. The following are the main areas of intervention:

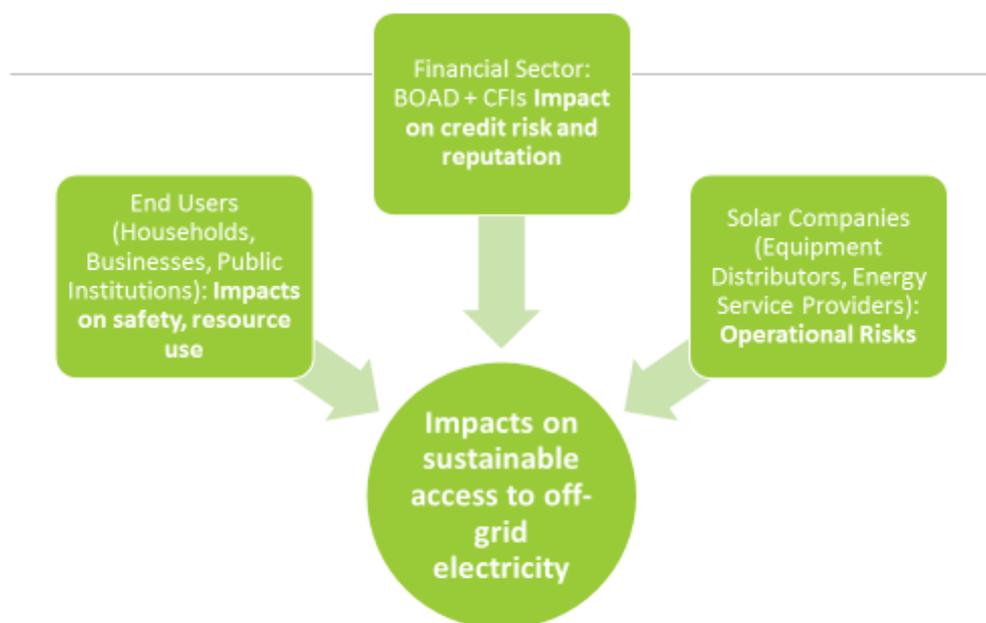
1. ROGEP seeks to institute a consistent and effective environmental and social screening process for application in all the project at the wholesale FI (BOAD), CFIs (including ECREEE in its capacity of providing grant financing), and private solar business levels.
2. ROGEP is committed to providing resources essential to the implementation and control of the Strategy. Resources include human resources, organizational infrastructure, technology and financial resources.
3. ROGEP will help building or incorporating ESRM in the wholesale Financial Intermediaries (FIs) and Commercial Financial Institutions (CFIs) systems. This will include environmental and social screening processes and environmental management procedures that will enable them to identify, assess and mitigate potential environmental and social impacts of Standalone Solar Businesses and Energy Services Companies in the countries.
4. ROGEP will support and empower Financial Intermediaries and CFIs' staff responsible for E&S issues to carry out the environmental and social screening process including the implementation and monitoring of mitigation measures of all businesses as necessary.
5. ROGEP will ensure that all applicant Standalone Solar Businesses are screened for potential adverse environmental and social impacts and that appropriate mitigation and monitoring measures, including cost estimates, are identified and implemented by qualified personnel in the firm.
6. ROGEP will also ensure that the identified strategic risks receive due attention and involve multi-stakeholder solutions at country and regional level. ROGEP will allocate resources to ensure strategic risks are adequately addressed.

### 4 Strategic Environmental and Social Risks in ROGEP operations

Developing strategic solutions for E&S risk management is imperative for the success of the project. These are cross-cutting issues that go beyond the specific E&S operational

due diligence of separate stakeholders including the lending and grant financing components under ROGEP. Instead, they require strategic consideration and collaboration at the market/sector level (Figure 2).

Figure 2. E&S Risk for Key Stakeholders



#### 4.1 Key Environmental and Social Risks in ROGEP

The off grid solar sector has been acknowledged to have moderate environmental and social risks. However, with respect to the ROGEP activities, some risks have been identified. Table 1 presents key E&S risk areas for the project.

Table 1. Key Environmental and Social Risks in ROGEP

Risks and Challenges	Risk Rating	Impact	Suggested mitigation measures
Waste management (e-waste, used batteries)	High	High	<ul style="list-style-type: none"> <li>• Policy dialogue at country and regional level technical assistance to governments to put in place specific e-waste management measures for solar industry</li> <li>• Design and testing of private sector solutions</li> <li>• Awareness raising of end users and implementing e-waste collection programs</li> </ul>
Water Resource Risk	Low	Moderate	<ul style="list-style-type: none"> <li>• Creating awareness among the end users of the consequences of the increase in water usage as their operations increase</li> <li>• Enterprise involvement in the education of end users in the productive use of the technology</li> </ul>
Gender actions (inclusion of women, addressing gender based violence etc.)	Medium	High	<ul style="list-style-type: none"> <li>• Develop a gender-sensitive stakeholder engagement plan, raise awareness on potential risks of GBV/SEA the project may exacerbate</li> <li>• Engage women as valuable partners along the entire value chain as employees and contractors/sub-contractors;</li> <li>• Train and build the capacities of stakeholders to raise awareness on Gender-based violence (GBV)/Sexual Exploitation and Abuse (SEA) mitigation measures, such as the code of conduct</li> </ul>

		<p>and available services for women who come forward to report abuse;</p> <ul style="list-style-type: none"> <li>• Assess policies and procedures of beneficiary companies on sexual harassment and provide support to increase institutional capacity including developing sexual harassment policies, conducting sexual harassment trainings, and setting up ethical and confidential mechanisms to document and monitor incidences of sexual harassment, and ensuring that complaints are fully investigated and acted upon in a timely manner.</li> <li>• Establish a code of conduct for beneficiary companies to prevent GBV/SEA, including termination of employees/contractors engaging in severe forms of GBV/SEA, the code of conduct should prohibit sex with minors.</li> <li>• Maximize women’s employment opportunities by including hiring of women employees as a criterion for beneficiary company selection. Teams that are comprised of men and women can reduce risks for violence against women and girls (VAWG) when interacting with the beneficiary population,</li> <li>• The GRMs handling local complaints should include a process for handling GBV/SEA complaints confidentially and sensitively, with information on local</li> </ul>
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			<p>support to victims. Use ICTs such as mobile phone applications for the reporting of GBV/SEA complaints. The GRM should be equipped to immediately provide referral to competent services. No mediation or case investigation should be done by the GRM operators.</p> <ul style="list-style-type: none"> <li>• Reinforce capacity building for women entrepreneurs and stakeholders in the market. Engage male partners in conversations that address violent behaviours that may arise do to shifting power balance in the household. Training on healthy relationships and non-violent conflict resolution are recommended.</li> <li>• Focus on access for women-led businesses and for businesses that have the potential to improve women’s income in the selection of beneficiaries</li> <li>• Focus on women in communication and outreach activities on credit line facility</li> <li>• Select electrification to public institutions by taking into account if and how the institutions’ work directly contributes towards advancing gender equality and women’s economic development</li> </ul>
Inclusion of vulnerable groups	Moderate	Moderate	<ul style="list-style-type: none"> <li>• Engage with stakeholders to reduce any prejudice or discrimination toward individuals or groups who due to their peculiar circumstances may be at a disadvantage in getting access to energy,</li> </ul>

			<p>especially public institutions</p> <ul style="list-style-type: none"> <li>• Improve their inclusion in the activities of the project and the value chain of the Off-Grid sector, especially female-headed households and internally displaced people (IDP)</li> <li>• Education of illiterate and semi-literate end users through adult education approaches programs</li> <li>• Policy dialogue - promoting social inclusion policies</li> <li>• Pilot activities to focus on the marginalized (bottom 40%) such as the graduation approach</li> </ul>
Sustainability of the supply chains	Low	Low	<ul style="list-style-type: none"> <li>• Awareness of participant organizations (CFIs, solar companies) of supply chain E&amp;S risks</li> </ul>
Citizen / end user engagement	Low	Low	<ul style="list-style-type: none"> <li>• Support the education and awareness under the project's key delivery areas namely households, small businesses, universities</li> <li>• Awareness raising of end users on key E&amp;S issues that affect them (e.g. water consumption and water quality for panel washing)</li> </ul>

#### 4.2 Expected Positive Environmental and Social Outcomes

It is worth noting that, even though E&S risks exist for ROGEP, the project is expected to have some clear positive outcomes:

- Employment and wealth creation
- Electricity Access for the poor
- Improved and affordable access to energy due to alternative payment models (PAYGO)



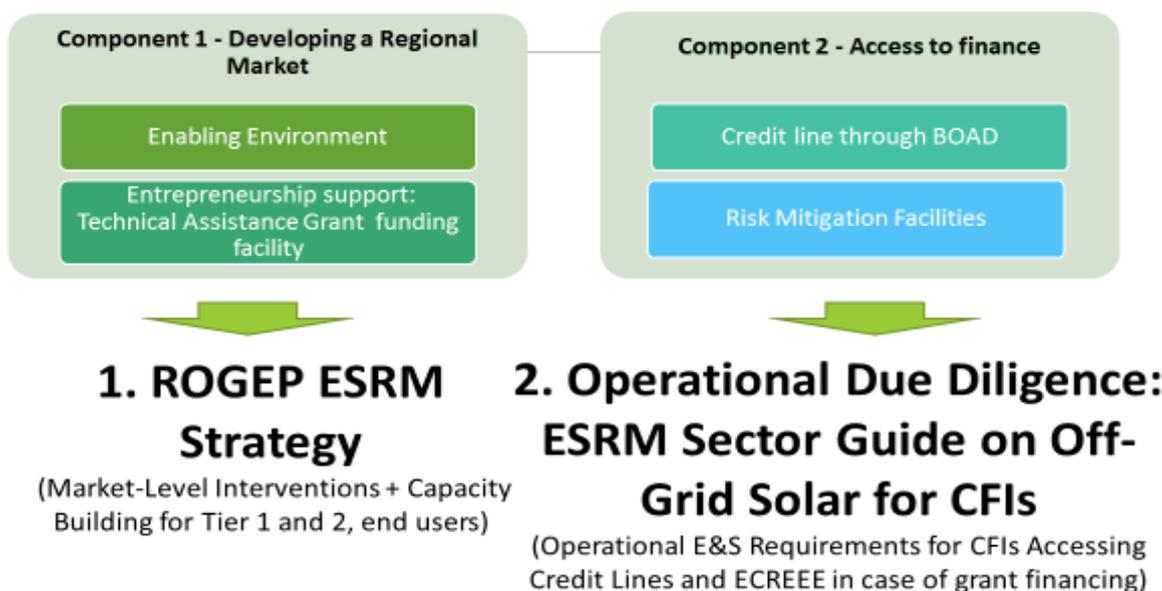
- Social Inclusion
- Health benefits such as reduction of the use of kerosene lamps and other harmful lighting methods
- increased access to education for children
- Increase in revenues for businesses and households engaged in income generating activities where energy is key
- Improved security especially for vulnerable groups, like female headed households
- Improved communications thanks to improved electricity access to charge mobile phones
- Access to finance for businesses and end users
- Improved livelihood enhancing activities

## 5 Key Components of the ROGEP ESRM Strategy

The strategic approach for addressing ROGEP E&S risks and impacts is anchored in the following two components:

- a. Addressing risks and issues at the market level and
- b. Addressing E&S risks at the operational level: Capacity Building and TA (for access to finance component)

Figure 3. Key Components of the ROGEP ESRM Strategy



## 5.1 Operational Level: Supporting Systems and Capacity Building for E&S Risk Mitigation in Lending and Grant Finance Transactions

For effective implementation of the Strategy there will be need to build E&S capacity among the staff of ECREEE as the implementing institution, as well as among the wholesale Financial Intermediary as in BOAD, Commercial Financial Institutions, solar companies, Staff of Ministries of Energy, Health and Education as well as other key private sector entities responsible for implementation of activities under project components. It will also be important to ensure that ROGEP has sufficient capacity and systems for effective oversight of the fairly complex processes for E&S risk management with multiple parties involved. Appropriate understanding of the screening mechanisms and the guidelines for implementing the Strategy will be provided to the FIs and CFIs.

Capacity building efforts are needed at different levels. It has to be ensured that all institutions and organizations involved integrate their activities within appropriate coordinating mechanisms in order to give consistent signals for the management of ROGEP. The four E&S capacity building activities categories are:



- E&S capacity building for ECREEE and BOAD;
- E&S training and support to (i) Commercial Financial Institutions (ii) solar equipment distributors supplying products to households and productive end-users of solar equipment and (iii) energy service companies electrifying public institutions, such as schools and health centres.
- Capacity building that strengthens the developing strategic solutions for E&S risk management for the off-grid solar market.
- Capacity building for public institutions working in the off grid solar sector.

#### 5.1.1 E&S Capacity Building for ECREEE and BOAD

As regards the institutional capacity building, ECREEE, BOAD staff of the environmental and social units are to be trained in different aspects of the implementation of the Strategy and the proposed Project, including interpretation and implementation of environmental impact management guidelines. The training program for ECREEE and BOAD will include an orientation program on the ESMRS which will include environmental and social assessment processes, screening and participatory methodologies, monitoring and reporting.

Capacity building will help improve the effectiveness of these institutions at various levels in the management of environmental and social impacts during the implementation of ROGEP.

The four major areas for anticipated trainings are:

- Awareness raising among ECREEE and BOAD staff to appreciate the guidelines for the off grid solar market and the related E&S risks and mitigation factors
- Sensitization to the identification of gaps and how technical support can be requested from ROGEP
- Detailed technical training for the institutions be able to analyze potentially adverse environmental impacts, to prescribe mitigation approaches and measures, and to prepare and supervise the implementation of environmental and social management plans in the other institutions in the value chain
- South-South knowledge exchange with other development banks to strengthen BOAD institutional systems and capacity for E&S risk management.



### 5.1.2 E&S Capacity Building for CFIs and Solar Businesses

This activity will build the E&S capacity of the focal persons, as part of overall capacity strengthening, of potential CFIs in the framework of the activities under component 1a. They will be provided with training and support to develop and enhance their ESMS to be able to comply with the applicable E&S requirements, monitoring and reporting by ROGEP, and BOAD.

Lending to solar companies under ROGEP will require participating commercial financial institutions who will lend to solar companies (Solar Equipment Distributors and Energy Service Companies) to put in place and implement E&S screening and monitoring procedures commensurate to the scope and nature of E&S risks and impacts to ensure that solar companies adequately manage relevant risks and impacts at their level - such as OHS and labour issues related to their own workforce - and as part of their interactions with customers during and after equipment installation process. This is applicable for the lending components implemented through BOAD, as well as the grant components implemented by ECREEE. To help CFIs implement adequate screening processes that deal with E&S risks and impacts specific to off-grid solar sector, BOAD - with assistance from ECREEE - have jointly prepared an ESRM Sector Guide for Off-Grid Solar that will be required for use by CFIs that will avail ROGEP credit line. The Sector Guide will also be applied by ECREEE in its capacity as an FI for components 1 (b) and 1(c) of the project.<sup>1</sup>

All CFIs will be expected to implement ESRM Sector Guide for Off-Grid Solar as a complement to their institutional E&S management systems (ESMS for financial institutions), where CFIs have such systems in place, or as a specific requirement for ROGEP credit lines, where CFIs do not have full institutional ESMS. Solar companies will also be expected to have an ESMS for their operations which must be commensurate with the scope and nature of risks and impacts. The solar companies receiving loans from CFIs will be responsible for implementing the E&S risk management processes in their own operations on the ground, including ensuring compliance with occupational health and safety imperatives and dealing with de-manufacturing of out-of-use solar devices, e-waste disposal and recycling.

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<sup>1</sup> Currently, ECREEE has limited capacity for ESRM, with one part-time staff supporting project preparation. ECREEE will be expected to hire a full-time E&S expert to assist with project implementation.



Likewise, solar companies who qualify for grants through ECREEE will have to indicate in their operations how they intend to address environmental and social sustainability issues that could be associated with the provisions of their services, through implementation of an ESMS as described above.

Therefore, capacity building and training are essential and should be undertaken for the CFIs, as well as solar businesses, to ensure that the ESMS is effectively operationalized. This activity will build E&S capacity, as part of overall capacity strengthening, of potential CFIs and existing and new private companies interested in entering the regional market. They will be provided with training and support to develop and enhance their ESMS to be able to comply with the applicable E&S requirements, monitor and report.

### **Commercial Financial Institutions**

At the level of the CFIs, the following activities will allow to operationalize ESMS in project activities (transaction screening):

- a. Preparation and implementation of an E&S policy for financial institutions
- b. Development of an E&S screening investments for potential environmental and social impacts, assess feasibility and mitigation measures
- c. Integration of E&S screening and monitoring processes into the overall lending due diligence for transactions in SME finance (and in particular off-grid solar businesses)
- d. Stakeholder engagement and grievance redress: transparency and disclosure responsibilities.

CFIs will be required to fund or co-share the expenses of the capacity building programmes in meeting the E&S requirements or upgrading.

### **Solar Businesses**

Capacity building will be organised for the Standalone Businesses (Tier 1,2 and 3) to ensure that the Strategy is effectively operationalized.



They will be provided with training and support, in the framework of the activities related with entrepreneurship support under component 1a, to develop and enhance their ESMS to be able to comply with the applicable E&S requirements, monitor and report.

Solar Equipment Distributors and Energy Service Companies should be trained in different aspects of the implementation of the ESMS, including interpretation and implementation of environmental impact management guidelines. The three major areas for anticipated trainings are:

- a. Awareness raising to understand the significance and the relevance of environmental issues, as well as sensitivity of certain issues, such as disposal of batteries and panels
- b. Detailed technical training on analysing potentially adverse environmental impacts, to prescribe mitigation approaches and measures, and to prepare and supervise the implementation of environmental and social management plans
- c. Monitoring & reporting on E&S issues, using the appropriate templates
- d. Other training as needed to strengthen Solar Equipment Distributors and Energy Service Companies' ability to improve overall project quality, such as project management, occupational health and safety, monitoring and evaluation, waste management, etc.

Tier 3 companies will be required to fund or co-share the expenses of the capacity building programmes in meeting the E&S requirements or upgrading.

## 5.2 Market-Level E&S Risks and Challenges for ROGEP Implementation

This category of activities will support developing programmatic approaches to address key strategic challenges faced by players beyond the direct impacts at the transactional level (lending and grants).

Beyond the specific E&S due diligence at the level of CFIs, distributors, and energy service companies for the two program components, some of the identified E&S risks require strategic solutions at the market/ sector level. These are cross-cutting issues that go beyond the specific E&S due diligence of separate subprojects. Instead, they require strategic consideration and collaboration at the market/sector level. Therefore, training targeting a boarder scope of audience, including policy makers, industry practitioners, domestic and international financiers, and other key players in regional solar energy

sector is needed. The following issues have been identified as systemic and resources have been allocated to developing strategic solutions for them:

1. E-waste, and more specifically used battery storage, recycling, and disposal. Lack of good alternatives of current battery recycling and disposal options used for accumulating and storing energy is a long-term issue that requires sector-wide solutions. Lead-acid batteries, the most widely used type in this project, are expected to be phased out due to recent international initiatives and market forces. However this will not happen in the 19 countries in the medium to long term. This will present an issue once batteries reach its recycling age. ROGEP will engage private sector developers in resolving this risk to develop a targeted strategy without compromising project efficiency.
2. Gender issues: gender-based violence related risks may occur under the project. Primarily, these may relate to the interactions between solar equipment installation workers/ teams and communities and households where these large-scale works would take place. There is also another risk of women not being part of the decision making in the household being disproportionately disadvantaged in getting access to energy.
3. Vulnerable groups risks: Exclusion of poorest groups, including illiterate or semi-illiterate, female-headed households, internally displaced people (IDPs), elderly, and people with disabilities.
4. Citizen and users' engagement: This will support the education and awareness under the project's key delivery areas namely households, small businesses and Government Agencies. This will address the environmental and social risk around solar technologies, such as handling of batteries at the end of their first lifespan. The capacity building activities will try to ensure equal participation of men and women as target audience. Capacity building activities could include life skills like healthy relationships, healthy parenting and non-violent conflict resolution that can lead to reduce the risk of GB.
5. Supply chain sustainability: Production of solar panels or other components of solar equipment may be associated with a number of unsustainable practices such as labor rights violations, poor working conditions, absence of clean production standards etc. There have been numerous media and NGO campaigns covering



these issues.<sup>2</sup> Actions can include integrating key E&S considerations in product standards / certification (e.g. fair labor practices during production), awareness of CFIs, solar companies of supply chain E&S risks, raising public awareness and build trust and demand for products produced in a sustainable way.

## 6 ECREEE Coordination Role for ROGEP ESRM Strategy

ECREEE will assume core coordination role for implementing ROGEP ESRM Strategy (Figure 4) in close coordination with BOAD.

Figure 4. ECREEE Responsibilities for ESRM Strategy

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<sup>2</sup> <http://www.americanmanufacturing.org/blog/entry/the-true-cost-of-chinese-solar-panels-part-3>

