



# Environmental and Social Risk Management (ESRM) Sector Guide on Off-Grid Standalone Solar for Financial Service Providers

Updated December 2020

# Abbreviations

BOAD	West African Development Bank	
CFIs	Commercial Financial Institutions	
COVID-19	Coronavirus Disease 2019	
ECOWAS	Economic Community of West African States	
ESAP	Environmental and Social Action Plan	
ESCO	Energy Service Company	
ESMS	Environmental and Social Management System	
ESRS	Environmental and Social Review Summary	
E&S	Environmental and Social	
FIs	Financial Institutions	
GBV	Gender Based Violence	
НН	Households	
HR	Human Resources	
IFC	International Finance Corporation	
OHS	Occupational Health and Safety	
PPE	Personal Protective Equipment	
PV	Photovoltaic	
SEA	Sexual Exploitation and Abuse	
SH	Sexual Harassment	
SHS	Solar Home Systems	
SMEs	Small and Medium Size Enterprises	
SSA	Sub-Saharan Africa	

# Table of Contents

1.	1. Introduction				
2.	2. Off-grid solar standalone energy: sector description, scope and applicability, and key stakeholders 5				
2	2.1. Sector description				
ź	2.2.	Scope and Applicability	6		
3.	E&S	Due Diligence Process for Financial Institutions	6		
3	3.1.	Environmental and Social Management System for Financial Institutions	6		
3	3.2.	E&S Policy for Financial Institutions	8		
3	3.3.	Key Applicable E&S Requirements for Solar Businesses	8		
3	3.4.	Evaluating E&S Risks and Impacts of Solar Businesses	9		
3	3.5.	Monitoring E&S risks	11		
3	3.6.	Grievance mechanisms	12		
3	3.7.	Reporting	12		
3	3.8.	E&S Capacity	12		
4.		1S for Solar Businesses: Components, responsibilities and requirements	13		
4. 5.	ESIV	1S for Solar Businesses: Components, responsibilities and requirementsorting system			
	ESⅣ Rep		14		
5. 6.	ESIV Rep Cap	orting system	14 14		
5. 6. Ani	ESIV Rep Cap nexes	orting systemacity building	14 14 15		
5. 6. Ani Ani	ESIV Rep Cap nexes nex 1.	orting systemacity building	14 14 15 16		
5. 6. Ani Ani	ESN Rep Cap nexes nex 1. nex 2.	orting system acity building E&S risks and mitigation measures in standalone solar off-grid sector	14 14 15 16 26		
5. 6. Ani Ani Ani	ESM Rep Cap nexes nex 1. nex 2. nex 3.	orting system acity building E&S risks and mitigation measures in standalone solar off-grid sector Environmental and social screening questionnaire for solar businesses	14 14 15 16 26 33		
5. Ani Ani Ani Ani	ESN Rep Cap nexes nex 1. nex 2. nex 3. nex 4.	orting system acity building E&S risks and mitigation measures in standalone solar off-grid sector Environmental and social screening questionnaire for solar businesses Environmental and social categorization memorandum.	14 14 15 16 26 33 34		
5. Ann Ann Ann Ann Ann	ESN Rep Cap nexes nex 1. nex 2. nex 3. nex 4. nex 5.	orting system acity building E&S risks and mitigation measures in standalone solar off-grid sector Environmental and social screening questionnaire for solar businesses Environmental and social categorization memorandum Environmental and social action plan template	14 14 15 16 26 33 34 35		
5. Ann Ann Ann Ann Ann Ann	ESN Rep Cap nexes nex 1. nex 2. nex 3. nex 4. nex 5. nex 6.	orting system acity building E&S risks and mitigation measures in standalone solar off-grid sector Environmental and social screening questionnaire for solar businesses Environmental and social categorization memorandum Environmental and social action plan template Environmental and social risk monitoring form	14 14 15 26 33 34 35 37		
5. 6. Ann Ann Ann Ann Ann Ann	ESN Rep Cap nexes nex 1. nex 2. nex 3. nex 4. nex 5. nex 6. nex 7.	orting system	14 14 15 26 33 34 35 37 43		
5. 6. Ann Ann Ann Ann Ann Ann Ann	ESN Rep Cap nexes nex 1. nex 2. nex 3. nex 3. nex 5. nex 6. nex 7. nex 8.	orting system	14 14 15 16 26 33 34 35 37 43 45		
5. Ann Ann Ann Ann Ann Ann Ann Ann	ESN Rep Cap nexes nex 1. nex 2. nex 3. nex 4. nex 5. nex 6. nex 7. nex 8. nex 9.	orting system	14 14 15 26 33 34 35 37 43 43 45 47		

## List of Tables

Table 1. Transaction screening when assessing solar off-grid businesses	9
Table 2. E&S risk categorization when assessing solar off-grid businesses	10
Table 3. ESMS due diligence requirements	11
Table 4. Management of non-compliance situations	
Table 5. ESMS components, responsibilities and requirements for solar companies	13

# List of Figures

Figure 1.	ESMS and integration into the credit risk management system	7
Figure 2.	Key elements of an ESMS for Financial Institutions	7

### 1. Introduction

This E&S Due Diligence Guideline is prepared for CFIs, fund managers or similar entities that provide debt financing, grants, or technical assistance to the off-grid solar. Those institutions involved in financing and supporting the standalone solar businesses through lending, risk sharing, grant financing or technical assistance should apply this Guideline when assessing new clients, projects or transactions. The main focus of this Guideline is on ESRM however the entities should also consider opportunities for E&S performance improvement beyond risk management.

The objective of the guidelines is to help CFIs, fund managers and entities acting in similar capacity (collectively, financial institutions) assess the potential E&S risks and opportunities associated with providing debt or grant financing to the solar off-grid standalone businesses and activities. The Guideline provides information on what is needed for FIs to assess the E&S risks, communicate requirements to solar businesses, as well as monitor and report on implementation.

# 2. Off-grid solar standalone energy: sector description, scope and applicability, and key stakeholders

#### 2.1. Sector description

Solar PV technology has become a rational choice to contribute substantially to electricity access in Sub-Saharan Africa. Solar lanterns and Solar Home Systems have improved electricity access to about 17.3 million people in Africa<sup>1</sup>. However, the market development has been asymmetric and faces a number of key barriers, namely, access to finance, poor regulatory framework to ensure the import of quality products, lack of business models that ensures proper financing for operation and maintenance, poor regulatory framework that promote quality products, and a lack of financial intermediaries to scale up. In Africa, the off-grid solar sector market is largely confined to East Africa. Statistics in West Africa show that is still a young market subject to high volatility in sales volume<sup>2</sup>.

Standalone solar systems can be solar lanterns or solar home systems. The solar lanterns are usually of less than 10W in size and comes with one task light along with mobile phone charging facility. The solar home systems used by households in general range from 30W to 80W. However, at present plug and play standalone solar home systems can be up to 350W. Smaller solar home systems use a mobile solar panel to charge the battery. Larger solar home systems can have the solar panel installed in the household roof or mount on a pole near the house.

Standalone solar systems that could be used for shops and market places are similar to the ones used for households. With innovation in technology, standalone solar systems can be used to electrify small and medium enterprises (SMEs) such as solar powered egg incubation for poultry farms, solar milk chillers from dairy farms, solar power sewing machine, solar irrigation, etc. This could be of 1kW to 10 kW of size range. These systems will either install the solar panels on the roof of the SME building or on the ground adjacent to the SME building depending on convenience. The standalone solar systems that can be used to electrify public institutions could be of similar size as of the solar systems used for SMEs.

<sup>&</sup>lt;sup>1</sup> GOGLA – Off-Grid Solar Market Trends Report 2018

<sup>&</sup>lt;sup>2</sup> GOGLA – Global Off-Grid Solar Market Report, Semi-Annual Sales and Impact Data, July-December 2017

#### 2.2. Scope and Applicability

This Guide is for use by all financial service providers working in the off-grid standalone solar sector.

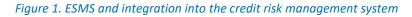
Financial institutions will facilitate access to debt and grant financing by providing short to medium term loans to the following three main categories of clients: (i) solar equipment distributors supplying products to households and productive end-users of solar equipment; (ii) households and productive end-users of solar equipment; and (iii) energy service companies electrifying public institutions. E&S risks, for the purposes of the guidelines, refer to potential E&S risks and impacts of FIs' clients (the solar off-grid businesses and activities).

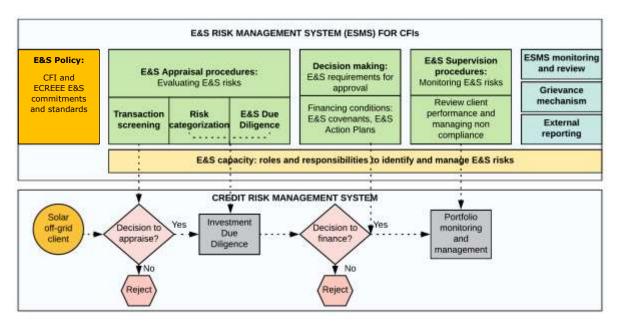
### 3. E&S Due Diligence Process for Financial Institutions

Commercial Financial Institutions (CFIs) and other entities acting in a similar capacity (collectively "financial institutions") shall develop and implement a process that assists them in the identification, assessment, management and on-going monitoring of identified E&S risks associated with the solar offgrid sector. This shall be done as part of the overall credit assessment of the solar businesses they provide funding to. This process can be embedded into the FI's overall Environmental and Social Management System (ESMS), where an institution has one. Where an FI does not have an institutional ESMS, the E&S due diligence process shall be internalized and applied by the FIs to the solar businesses as a requirement to access funding from [ECOWAS/BOAD].

#### 3.1. Environmental and Social Management System for Financial Institutions

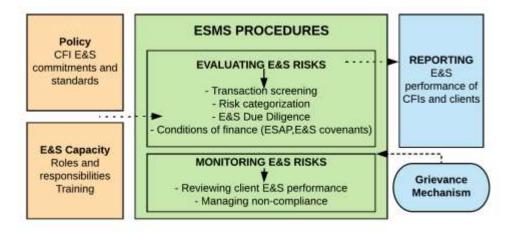
To manage potential E&S risks associated with loans/investments, E&S due diligence shall be conducted prior to client, project or transaction approval and also include adequate supervision of the business activities during the term of the loan/grant (**figure 1**). The financial institutions implementing ESMS should factor E&S risks into the decision-making process before proceeding with a transaction.





The key elements of the ESMS for CFIs are summarized in **figure 2.** The E&S Policy is the formal declaration that shows the commitment to manage the E&S performance of the clients. The procedures materialize this commitment into defined and guided actions. These are part of the evaluating and monitoring E&S risk management steps. A proper and regular reporting system on the E&S performance is necessary to comply with contractual arrangements, maintain good relationship with client and investors and ensure transparency. Finally, the ESMS will be based both in the high-level management commitment at the institutional level and the existence of a trained and capable capacity among credit staff with defined roles and responsibilities.

#### Figure 2. Key elements of an ESMS for Financial Institutions



#### 3.2. E&S Policy for Financial Institutions

The E&S Policy is the formal declaration that shows the commitment to manage the E&S performance of the clients. It is a written commitment that must be approved and backed up from the highest management level of a financial institution. In addition, it needs to be properly communicated to all employees and stakeholders.

The policy should:

- Demonstrate credible commitment
- Indicate how this commitment is integrated into the CFI's priorities
- Clearly state the requirements that apply in implementing the policy
- Define the scope and objectives of the ESMS
- Be comprehensive and communicated to all stakeholders

#### 3.3. Key Applicable E&S Requirements for Solar Businesses

As part of their ESMS, the following sector-specific requirements shall be applied to solar businesses by financial institutions:

#### a. E&S exclusion criteria:

- 1. Production or activities involving forced labor<sup>1</sup>
- 2. Production or activities involving child labor<sup>2</sup>
- 3. Cross-border trade in waste and waste products, unless compliant to the Basel Convention and the underlying regulations<sup>3</sup>
- 4. Confirmed cases of occupational, health, and safety incidents or accidents<sup>4</sup>
- 5. Confirmed cases of Gender Based Violence/Sexual Exploitation and Abuse
- 6. Confirmed cases of discrimination of vulnerable groups, including gender and disability

#### Footnotes

1. Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

2. Employees may only be taken if they are at least 15 years old, as defined in the ILO Minimum Age Convention (C138, Art. 2), and ratified by each country. Children under the age of 18 will not be employed in hazardous work. Children will not be employed in any manner that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

3. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, usually known as the Basel Convention, is an international treaty that was designed to reduce the movements of hazardous waste between nations. Hazardous waste, as defined under the convention, will not be traded cross-border. Under Basel Convention, "hazardous wastes" are defined as (a) Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and (b) Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit. National definition of hazardous wastes for Nigeria under Basel Convention can be found here: <a href="http://www.basel.int/Countries/NationalDefinitions/NationalDefinitionsofHazardousWastes/tabid/1480/Default.aspx">http://www.basel.int/Countries/NationalDefinitions/

4. If the financial institution has a cause to believe that these issues have been duly dealt with according to their satisfaction then the business can be considered for financing

#### b. Minimum Environmental and Social System Requirements for Solar Businesses:

Each solar business shall be required to have an "ESMS" at its level to be comprised at a minimum of:

- 1. Policy/ procedure and records on occupational health and safety
- 2. Human Resource policy (including code of conduct for workers and grievance mechanism for workers)
- 3. Waste management policy or procedures
- 4. Stakeholder engagement plan and grievance mechanism
- 5. Solar businesses shall also be encouraged to put in place a formal environmental and social policy

Solar businesses that are classified as Tier 1 and 2 may not have all of these policies, procedures and tools in place. These are typically business less than 3 years old may have sold few units of SHS and have few employees. They will be required to develop an E&S Action Plan (ESAP) to implement these requirements within a year. Such plan shall be included in the financing agreement.

#### 3.4. Evaluating E&S Risks and Impacts of Solar Businesses

E&S appraisal procedure is a review of the client's information to identify client's E&S potential risks and impacts, and mitigation measures (**Annex 1**). The three main steps in the evaluation area are part of the E&S appraisal procedures, and include: transaction screening, risk categorization and E&S due diligence. E&S screening questionnaire for financial institutions to apply to solar businesses is presented in **Annex 2**.

#### Transaction screening

Transaction screening	Description	
Type of transaction	It will determine the FIs' leverage in following up with corrective actions:	
	- Low risk: microfinance, short term trade finance, factoring	
	<ul> <li>Medium risk: loans to SMEs, leasing</li> </ul>	
	- High risk: large and long term corporate or project financing	
E&S risk screening	Business nature and characteristics	
<i>(see Annex 2 for</i> E&S screening questionnaire for solar businesses)		
busillesses/	- Any regulatory licenses/permits	
	Exclusions per the exclusion criteria (does the client have):	
	<ol> <li>Production or activities involving forced labor</li> <li>Production or activities involving child labor</li> </ol>	
	<ol> <li>Production or activities involving child labor</li> <li>Cross-border trade in waste and waste products, unless compliant to the Basel Convention and the underlying regulations</li> </ol>	
	<ol> <li>Confirmed cases of occupational, health, and safety incidents or accidents<sup>3</sup></li> </ol>	
	<ol> <li>Confirmed cases of Gender Based Violence/Sexual Exploitation and Abuse</li> </ol>	

#### Table 1. Transaction screening when assessing solar off-grid businesses

<sup>&</sup>lt;sup>3</sup> If the solar business can demonstrate with reports and documentation that it has been able to adequately addressed the issues and this can be verified by the Financial Institutions, the business can be considered for financing among other requirements.

	<ul> <li>6. Confirmed cases of discrimination of vulnerable groups, including gender and disability</li> <li>(I.e. check inspection reports, media reports, and notification of violations by labor and environmental authorities)</li> <li>If yes, the client might not be considered for financing.</li> </ul>
ESMS at the solar business level (see section 4)	<ul> <li>Does the client have:</li> <li>E&amp;S policy for the solar business</li> <li>Policy, procedure and records on OHS</li> <li>Human Resource policy (including code of conduct for workers and grievance mechanism for workers)</li> <li>Waste management policy or procedures</li> <li>Stakeholder engagement plan and grievance redress mechanism (such a call centers to respond to users' issues)</li> <li>Existence of any procedure or process to assess E&amp;S risks</li> <li>ESMS implemented</li> <li>Grievance mechanisms (including for Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) related grievances)</li> <li>Voluntary management systems implemented (ISO 14001, OHSAS 18001 etc.)</li> </ul>

#### Risk categorization of solar businesses

Financial institutions shall categorize solar businesses based on the screening conducted. **Table 2** contains the key suggested considerations for E&S risk categorization when assessing solar off-grid businesses. **Annex 3** provides the E&S categorization memorandum template.

Risk	Description/Criteria	
categorization		
Category B1 (low risk)	Businesses with minimal or no adverse E&S impact will be required to have in place only minimum ESMS core components to address key risks and mitigation measures as stated in section 3.3 (b)	
Category B2 (medium/ high risk)	Businesses that require – in addition to the above – an ESAP with specific measures and/or E&S covenants in legal/ loan agreements, as well as close monitoring, due to the severity of their potential adverse E&S impacts as a result of the size and/or characteristics of the solar business, and/or identified situations, such as occupational accidents or labor incidents that have not been adequately addressed, fair working conditions and terms of employment, or installers without applying safe installation measures	

 Table 2. E&S risk categorization when assessing solar off-grid businesses

#### E&S Due Diligence

Transaction screening and risk categorization are the first steps before a more detailed due diligence process. Following those, the extent of E&S due diligence will be determined by the client risk categorization (**Table 3**).

E&S Due Diligence	Description		
E&S Risk Categorization Memorandum (Annex 3)	E&S Categorization Memorandum is based on the outcomes transaction screening and solar business E&S risk characterization. To be prepared by the financial institution and reviewed by the client.		
Environmental and Social Action Plan (ESAP) (Annex 4 contains a template for	Financial Institutions should ensure that category B2 businesses have prepared an appropriate E&S Action Plan (ESAP) to address, identify and mitigate E&S issues. The entities should ensure that the businesses have appropriate management plans and procedures with corrective actions to mitigate identified negative E&S impacts and reduce E&S risk levels.		
ESAP preparation)	Financial Institutions can request solar off-grid sector clients to develop a systematic work plan or action plan to improve identified areas of poor or inadequate E&S performance. Also, to communicate the ESAP if necessary with affected communities. The plan should be credible, time-bound and documented. ESAP is reviewed and approved by the client.		
E&S Covenants in loan or grant agreements	Financial Institutions shall, where appropriate, include conditions and covenants in the transaction documentation to ensure identified E&S risks are adequately managed and that instances of non-compliance are addressed with the client or treated as events of default. Environmental and Social Action Plan (ESAP), where one is required, shall be included in the legal covenants for solar companies		
Monitoring and Reporting	Financial Institutions shall monitor the performance of the clients on the ESAP agreed, and any other situation related to E&S risks and impacts of the activity.		
	Financial Institutions will report on the outcomes of the E&S due diligence for solar businesses to [ECOWAS/ BOAD (see annex 6)		

#### Table 3. ESMS due diligence requirements

#### 3.5. Monitoring E&S risks

Where a solar off-grid sector transaction involving E&S risk issues has been approved, Financial Institution should monitor the client's implementation of any agreed E&S action plans, E&S risk management plans, or other requirements, that have been included in the transaction documentation to ensure effective E&S risk mitigation. **Annex 5** provides the E&S monitoring form. The monitoring will provide updates or any changes in exposure for E&S risks and ensure that these risks are properly managed. Non-compliance management situations are presented below.

#### Table 4. Management of non-compliance situations

#### Non-compliance situations:

- Unexpected E&S risk activities happening
- Cases of accidents/fatalities in client's operations

- Client is not complying with the E&S terms agreed at approval

#### Management actions depend on the severity of the situation:

- Request immediate action, including prepayment of the loan
- If loan has several tranches, withhold next tranche until issue is resolved. If repeat business, factor it into next loan decision
- Agree on a timeframe to resolve it

#### 3.6. Grievance mechanisms

Financial institutions should also implement at their level a system/communication channel to receive inquiries from the public and provide responses (including a Grievance Mechanism to ethically, confidentially, and pursuant to a survivor-centered approach, handle SEA/SH complaints). This system does not need to be specific to solar off-grid operations. These mechanisms allow early warning on potential reputational risks to the institutions.

#### 3.7. Reporting

Financial institutions shall report at least annually about their E&S risk management processes and experience, including information of solar off-grid sector clients and transactions. The reporting should at a minimum include, but is not limited to, the following:

- Number of solar off-grid sector transactions screened
- Number of solar off-grid sector transactions approved
- Portfolio breakdown by sector activity and E&S risk category
- Compliance of solar businesses with key requirements:
  - Policy/ procedure and records on occupational health and safety
  - Human Resource policy (including code of conduct for workers and grievance mechanism for workers)
  - Waste management policy or procedures
  - Stakeholder engagement plan and grievance mechanism
  - Solar businesses shall also be encouraged to put in place a formal environmental and social policy
- Cases of non-compliances and E&S incidents related to a transaction
- Progress in ESMS implementation

Reporting will contribute to maintain a good relationship with BOAD stakeholders and comply with contractual arrangements. **Annex 6** provides the E&S reporting form for financial institutions.

#### 3.8. E&S Capacity

Senior management commitment is necessary. Moreover, to document and implement the ESMS, financial institution should seek to build its capacity across relevant business functions with regard to E&S risk management, including provision of training, as well as recruiting and training specialized staff.

# 4. ESMS for Solar Businesses: Components, responsibilities and requirements

ESMS can also add value to solar off-grid businesses by helping to identify and mitigate E&S risks that could affect the viability or profitability of their businesses.

Component	Responsibilities	Requirements	
E&S Policy	Summarize the commitment of the company to manage E&S risks and impacts	Policy statement that according to the activity focus particularly on waste management (with an emphasis on e-waste) and OHS and labor risks <sup>5</sup>	
Identification of E&S risks and impacts	Identification of the potential E&S risks and impacts	Risk identification and assessment process in place	
Management program	Action plan to avoid, minimize or compensate for the E&S risks and impacts identified	<ul> <li>Documented action plan that must necessarily include according to the activity: <ol> <li>Policy/ procedure and records on occupational health and safety - guidelines on OHS requirements are found in Annex 7</li> <li>Human Resource policy (including code of conduct for workers and grievance mechanism for workers) – guidelines on HR policy requirements are found in Annex 8</li> <li>Waste management policy or procedures - guidelines on waste management requirements are found in Annex 9</li> <li>Stakeholder engagement plan and grievance mechanism (Annex 10)</li> </ol> </li> </ul>	
Organizational capacity and competency	Definition of the roles and responsibilities to implement the ESRMS	Internal procedures documents on the ESMS implementation, including internal training if necessary. In <b>Annex 7</b> , indicative occupational health and safety guidelines for solar companies can be found	
Emergency preparedness and response	To respond effectively to emergency situations	Internal training on first AID to mitigate occupational accidents. Operation procedures and practices must be prepared to manage the COVID 19 risk. The EBRD workplace risk assessment check list providing	

Table 5. ESMS components, responsibilities and requirements for solar companies<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> IFC (2015) – Environmental and Social Management System Implementation Handbook. This source provides information and toolkits for businesses to develop and implement ESMS.

<sup>&</sup>lt;sup>5</sup> Labor and HR policy requirements for solar companies are to implement an HR Policy that takes into consideration the relevant labor laws of the country in which the private business operates. In situations where there are no labor laws, international best practices should be adopted and this should be documented and explained to the workers.

		specific and practical questions on COVID-19 risk assessment must be considered (Annex -12).
Stakeholder engagement and grievance mechanisms	Identification of key stakeholders at the strategic business and operating level To establish a way for individuals, groups or communities to contact if they have inquiries, concerns or complaints	Stakeholder engagement plan that address the e- waste management and gender issues and vulnerable groups risks. Stakeholder engagement and grievance mechanisms should be accessible, inclusive, and in a format that is appropriate to ensure inclusion of marginalized and vulnerable groups (such as illiterate persons, elderly, persons with disabilities, etc.). Establishment of a stakeholder engagement plan and grievance mechanism (ensuring that the GM is adapted to handle SEA/SH complaints in a confidential, ethical, and survivor-centered manner)
Monitoring and review	To monitor compliance with the contractual obligations made with the Financial	Monitoring plan
	Institutions	

### 5. Reporting system

Reporting is a very important element in the ESMS. Reporting will start from the solar businesses and then to the Financial Institutions, [ECOWAS/ BOAD] and finally to the World Bank. Each institution will adapt the reporting form presented in **Annex 6**.

Financial Institutions should put in place a system for dealing with external communication on E&S matters, for example a point of contact for dealing with public enquiries and concerns.

Different types of E&S information may need to be disclosed to different stakeholders.

- Public reporting [ECOWAS/ BOAD] encourages financial institutions to publicly disclose information on how the FIs address E&S issues in their operations and business activities. This may, for example, be in the form of a section in the Company's Annual Report, a dedicated sustainability report, website or other public document, summarizing the Company's commitment to, and implementation of, their E&S procedures in lending and investment activities.
- The FI is required to submit to [ECOWAS/ BOAD] periodic (typically annual) reports on the implementation of the procedures and the environmental and social performance of its investment/lending portfolio.

### 6. Capacity building

Financial Institutions and private solar businesses with gaps in their ESRM Plan will be provided Technical Assistance at a cost. These gaps will be based on the assessment conducted by [BOAD] on the CFIs. Whilst the CFIs assessments on the private businesses will determine the level of capacity building required to close the gap.



# Annex 1. E&S risks and mitigation measures in standalone solar off-grid sector

Key E&S risks in the standalone off-grid solar sector are presented in Figure 1-1 below.

#### Figure 1-1. Key Environmental and Social Risks in Standalone Off-grid Solar Sector

lithium ion) >> hazardous waste	
Worker health and safety: Injuries, protective equipment	
Labor issues: No child or forced labor, proper grievance redress, fair terms of employment	
Gender and vulnerable groups risks: Gender-based violence, underserved fe headed households, exclusion of poorest groups and people with disabilities	
Supply chain: Awareness of E&S sustainability in the supply chains	
Consumer / user health and safety: Ensure safe installation	
Water consumption: Sustainable use of water resources	
Land issues: Small-scale land management and use for installation of panels	

Based on the nature of business activities in this sector, key environment and social risks (Table 1-1) include waste management (disposal and recycling of solar panels, used SHS units, and especially lead acid and lithium ion batteries, which are considered hazardous waste), pressure on the water resource, safety of OHS practices for solar companies' workers, and labor issues (no child or forced labor, proper grievance redress, fair terms of employment).

The workers involved in installation, may have to climb the roof of consumers house, public building, or an industrial shop which could be about 10 feet to 20 feet high, using ladders or other climbing gears. No hazardous materials are involved in solar panel installation.

Land-related issues are not expected to be significant, apart from potential voluntary land donation that will require a proper protocol, as well as small-scale land management and use for installation of panels (if installed on the ground). As the PV systems will be installed mostly on public and private sector buildings, written consent from the building users/owners will be taken and documented. Similar procedures would be adopted for ground mounted systems.

Additionally, some gender-related risks might involve gender-based violence, risk of underserving/ excluding female-headed households, and the need to close gender gaps in income generating opportunities, access to credit, and in health services and outcomes in project countries.

Type of risk	Description	Mitigation measures
Waste management (Electronic waste, chemical pollution)	Used panels, used batteries and units (both lead acid and lithium ion) are hazardous waste <sup>6</sup> Improper recycling of lead acid batteries causes wide-scale lead pollution/poisoning, including air, soil, and water contamination; lead entry into the food chain resulting in diseases and fatalities Management of used batteries will be a significant risk Additional waste issues are related to plastic material, polystyrene residues, aluminum, copper, steel	<ul> <li>Encourage incorporating the cost of the responsible management of waste into the business budgeting and financial prospections. Responsibly choose a waste management partner</li> <li>Encourage common (regional or country) frameworks for recycling of batteries and need to be promoted</li> <li>Engagement with industry, regulators, and NGOs to explore practical regional and country waste management solutions</li> <li>Proper management waste systems and channel</li> <li>Establishment of a reparation network and replacement parts channel</li> <li>Communication and educational campaigns for end users and communities</li> <li>Internal training on waste management processes</li> <li>Promote reuse, recycling or energy recovery plastic treatment</li> <li>Reuse, recycling or energy recovery in an equipped unit for polystyrene treatment</li> <li>Promote recycling</li> <li>Implementation of voluntary management systems such as ISO 14001<sup>7</sup></li> </ul>
Worker/ occupational health and	Slips and trips, falls	<ul> <li>Solar equipment needs to be installed safely</li> <li>Workers shall wear protective gear and</li> </ul>
safety	Manual handling issues	be trained in safe practices

Table 1-1. Summary of Potential E&S Risks and Impacts and possible mitigation measures

<sup>6</sup> When recycled:

Used lead-acid batteries are broken open, acids are drained into the soil and the lead plates are removed

Some of the lead are recycled (melted into other forms) while others are shipped abroad

Most lead-acid recycling plants operate under conditions which are hazardous to human health and the environment If disposed of in landfills or other places:

Wide-scale lead pollution/poisoning

Soil and fresh water contamination

Lead entry into the food chain resulting in diseases and fatalities

<sup>&</sup>lt;sup>7</sup> ISO 14000 is a family of standards related to environmental management to help companies, organisations, etc. to minimise how their operations negatively affect the environment. ISO 14001 defines criteria for an Environmental Management System. The company, organisation, etc. sets its own targets and performance measures, and the procedures to meet the goals and monitoring and evaluating the situation.

	Hazards of musculoskeletal disorders Injuries, lack of protective equipment etc.	<ul> <li>Assessment of workplace hazards. Consult and involve workers in the workplace risk assessment as well as in the choice of prevention measures</li> <li>Internal training on type of risks and suppression measures (safe working procedures)</li> <li>Supply appropriate Personal Protective Equipment (PPE) and train on its use and ensure that is properly maintained</li> <li>Maintain a fully stocked and accessible first aid kit</li> </ul>
Labor issues	Child or forced labor Improper grievance redress for workers Unfair terms of employment	<ul> <li>No child or forced labor can be employed by companies</li> <li>Develop and implement a proper grievance redress mechanism</li> <li>Solar companies to have HR policies that articulate clear and fair terms of employment and provide for no discrimination and equal opportunity</li> <li>Proper training and record on the system or working procedure</li> <li>Fair employment practices can lead to better business and better workers</li> <li>Employing women</li> </ul>
Land and related issues (installation)	If the installations need some on-the- ground space (as opposed to rooftops), ensure the areas are suitable for installation Key risks may be related to voluntary land donation in case of public / community buildings	<ul> <li>Photovoltaic installations on the ground must take into account the protection of existing agricultural and forestry areas</li> <li>Prioritize "degraded sites" (brownfield sites) Avoid areas subject to natural hazards</li> </ul>
Consumer / user health hand safety	Safe installation and use of panels and batteries	<ul> <li>Ensure safe installation</li> <li>Promote consumer education about proper and safe practices for use of equipment</li> <li>Proper isolation of equipment</li> <li>Proper signalization of the solar power system</li> <li>E-waste generation and management raising awareness</li> </ul>
Water consumption		Measures for resource efficiency

and resource efficiency	Solar irrigation: Water scarcity; social conflicts between community users	<ul> <li>Communication campaigns and raising awareness on sustainable water management (especially for productive end users)</li> </ul>
Gender-related risks	<ul> <li>Women are disproportionately affected by lack of reliable access to energy (exclusion risks)</li> <li>Gender-based violence/Sexual Exploitation and Abuse/Sexual Harassment</li> <li>Underserved female-headed households</li> <li>Social tension and decrease social cohesion</li> <li>Women with disabilities, illiterate women and landless women</li> </ul>	<ul> <li>Women employment with solar businesses is part of fair labor practices</li> <li>Gender-sensitive stakeholder engagement</li> <li>Promote active participation of women entrepreneurs, women's organizations, civil society and non-governmental organizations working on gender and energy issues</li> <li>Increase information and awareness of women's that will allow them to enter into renewable energy market</li> <li>Ensure that women entrepreneurs in the energy sector will have equal access to finance</li> <li>Capacity building and internal training on GBV prevention; GBV to be reported and dealt with as per the law</li> <li>Taking action for women to be seen and engaged as valuable partners along the entire value chain: design, marketing, sales, and after-sale services</li> <li>Promote education approaches to reinforce social inclusion</li> <li>Stakeholder engagement measures to identify and take into consideration possible social tensions and conflicts within communities</li> </ul>
Supply chain	Awareness raising on E&S risks (e.g. child labor) in supply chains of solar equipment	<ul> <li>Awareness of CFIs, solar companies of supply chain E&amp;S risks</li> </ul>

More information about the Environmental and Social risks and impacts associated to the solar off-grid businesses is presented below:

#### Environmental

Two main risks are identified: Electronic waste (e-waste) production and chemical pollution, and overexploitation of water resources. The sector should be proactive to identify non-expected risks and impacts that could appear due to the increase in the prosperity of communities<sup>8</sup>.

#### A. Electronic waste (e-waste) – chemical pollution

Main risks and impacts occur at the end of the life cycle of the PV products and materials<sup>9</sup>. These are in relation with the production of e-waste which contains hazardous materials. The e-waste generated by solar businesses is not a significant portion of the e-waste problem, but it is a significant issue<sup>10</sup>.

Some of the sources of pollution are used panels, used batteries (both lead acid and lithium ion), the plastic materials used in equipment, some residues from polystyrene, steel, and metal elements such as aluminum, copper or cadmium. The potential risks and impacts are on the soil and fresh water contamination, visual impact, local area degradation, health risk for workers of informal recycling sector and communities' population. Also the impact on air quality in areas close to informal recycling activities, and the brand risk exposure of solar products<sup>11</sup>. The origin and causes can be classified as Political – lack of legislation on e-waste traceability and treatment, and economic viability of proper recycling activities is not clear without regulations. Other causes are sectorial such as:

- E-waste stream<sup>12</sup>
- Uncontrolled e-waste dumps and informal recycling
- Lack of expertise regarding proper e-waste management and limited existence of e-waste treatment companies
- Poor economic value in the products to insure proper waste management activities
- E-waste management not considered in the business models of solar companies<sup>13</sup>
- Logistics issues. Lack of local market for many of the fractions resulting from proper treatment of solar off-grid products.
  - B. Over-exploitation of water resources

Due to a possible increase in the utilization of solar irrigation systems and other solar systems for productive uses with water resources consumption. In the case of irrigation, the common argument is

<sup>&</sup>lt;sup>8</sup> Another issue to be taken into account is the population growth of the benefited communities. If in an area only one or a few communities receive electric power supply plus potentially potable water, it is probable that migration to those benefited communities will take place leading to a significant increase in the use of the provided services.

<sup>&</sup>lt;sup>9</sup> Hespul (2009); Systèmes photovoltaïques: fabrication et impact environnemental. The ESPACE project produced more results on life analysis cycle of PV systems (http://espace-pv.org)

<sup>&</sup>lt;sup>10</sup> Power PVTech – Life cycle management and recycling of PV systems

<sup>&</sup>lt;sup>11</sup> If the off-grid solar sector does not responsibly choose its waste management partners, it is risking breaking its trust with customers. If a customer goes and buys a solar lantern from a third party that was sourced from an improper e-waste recycler, he/she will not differentiate that from buying it directly from the company itself. And often if these products which were meant for recycling get resold, they do not have the quality standards that are being marketed. This would lead to a loss of trust with customers which can quickly spread to genuine customers.

<sup>&</sup>lt;sup>12</sup> It refers to the increase in the number of electronic products (radio, fans, refrigerators, etc.) used in non-connected areas as a consequence of increasing the access to electricity.

<sup>&</sup>lt;sup>13</sup> The recycling component has not been taken into account at business level. The off-grid solar is fast -moving retail good business, has slim profit margins and complex logistics.

that solar irrigation systems lead to free pumping and hence an overexploitation of groundwater reserves is very likely<sup>14</sup>.

#### Occupational Health and Safety (OHS)

Solar off-grid sector will promote the installation of different solar systems at different levels: domestic, public facilities and productive uses. Limited attention has been given to the associated OSH aspects so far<sup>15</sup>. Potential occupational injuries and accidents exist in all stages of the life cycle of the materials, from manufacturing, installation and maintenance to decommissioning and recycling, to many different worker's groups in various types of workplaces and sectors.

Employers and supervisors are obliged to implement all reasonable precautions to protect the health and safety of workers. Preventive and protective measures should be introduced according to the following order of priority:

- *Minimizing the hazard:* through design of safe work systems and administrative or institutional control measures. Examples include job rotation, training safe work procedures, lock-out and tag-out, workplace monitoring, limiting exposure or work duration, etc.
- *Providing appropriate personal protective equipment (PPE)* in conjunction with training, use, and maintenance of the PPE.

The application of prevention and control measures to occupational hazards should be based on comprehensive job safety or job hazard analyses. The results of these analyses should be prioritized as part of an action plan based on the likelihood and severity of the consequence of exposure to the identified hazards.

OHS identified areas for solar off grid <sup>16</sup>	Description
General Facility Design and Operation	Fire Precautions
	Provision of manual firefighting equipment that is easily accessible and simple to use
	First Aid
	The employer should ensure that qualified first-aid can be provided at all times. Appropriately equipped first-aid stations should be easily accessible throughout the place of work.
	Remote sites should have written emergency procedures in place for dealing with cases of trauma or serious illness up to the point at which patient care can be transferred to an appropriate medical facility.

 Table 1-2. Examples of OHS key areas for solar off grid businesses

<sup>&</sup>lt;sup>14</sup> ENERGYPEDIA – Do Solar Powered irrigation Systems (SPIS) contribute to the overexploitation of ground water reserves?

<sup>&</sup>lt;sup>15</sup> European Agency for Safety and Health at work (E-Fact 68). OSH and small-scale solar energy applications.

<sup>&</sup>lt;sup>16</sup> Based on IFC, EHS Guidelines, General EHS Guidelines: Occupational Health and Safety

Communication and	OHS Training
Training	
	A basic occupational training program and specialty courses should be provided, as needed, to ensure that workers are oriented to the specific hazards of individual work assignments. Training should generally be provided to management, supervisors, workers, and occasional visitors to areas of risks and hazards.
	<ul> <li>Training should adequately cover:</li> <li>Knowledge of materials, equipment, and tools</li> <li>Known hazards in the operations and how they are controlled</li> <li>Potential risks to health</li> <li>Precautions to prevent exposure</li> <li>Hygiene requirements</li> <li>Wearing and use of protective equipment and clothing</li> <li>Appropriate response to operation extremes, incidents and accidents</li> </ul>
Physical Hazards	
	Welding
	Welding creates an extremely bright and intense light that may seriously injure a worker's eyesight. Measures include provision of proper eye protection such as welder goggles and/or a full-face eye shield for all personnel involved in, or assisting, welding operations.
	Ergonomics, Repetitive Motion, Manual Handling
	Use of mechanical assists to eliminate or reduce exertions required to lift materials, hold tools and work objects, and requiring multi-person lifts if weights exceed thresholds.
	Working at heights
	Fall prevention and protection measures should be implemented whenever a worker is exposed to the hazard of falling more than two meters. Fall prevention may include:
	<ul> <li>Proper use of ladders and scaffolds by trained employees</li> <li>Use of fall prevention devices</li> </ul>
	<ul> <li>Use of fall prevention devices</li> <li>Appropriate training in use, serviceability, and integrity of the necessary PPE</li> <li>Inclusion of rescue and/or recovery plans, and equipment to</li> </ul>
	respond to workers after an arrested fall
Personal Protective Equipment (PPE)	Personal Protective Equipment (PPE) provides additional protection to workers exposed to workplace hazards in conjunction with other facility controls and safety systems.

	<ul> <li>Identification and provision of appropriate PPE that offers adequate protection to the worker</li> <li>Proper maintenance of PPE, including cleaning when dirty and replacement when damaged or worn out. Proper use of PPE should be part of the recurrent training programs for employees</li> <li>Selection of PPE should be based on the hazard and risk ranking described earlier in this section, and selected according to criteria on performance and testing established</li> </ul>
Monitoring	Occupational health and safety monitoring programs should verify the effectiveness of prevention and control strategies. The selected indicators should be representative of the most significant occupational, health, and safety hazards, including the COVID-19 pandemic and the implementation of prevention and control strategies. The occupational health and safety monitoring program should include: - Safety inspection, testing and calibration
	<ul> <li>Assessment of Covid-19 Risk at workplace</li> <li>Surveillance of the working environment</li> <li>Surveillance of workers health</li> <li>Training</li> </ul>
	Accidents and Diseases monitoring
	<ul> <li>The employer should establish procedures and systems for reporting and recording: <ul> <li>Occupational accidents and diseases</li> <li>Dangerous occurrences and incidents</li> </ul> </li> <li>All reported occupational accidents, occupational diseases, dangerous occurrences, and incidents together with near misses should be investigated with the assistance of a person knowledgeable/competent in occupational safety. The investigation should: <ul> <li>Establish what happened</li> <li>Determine the cause of what happened</li> <li>Identify measures necessary to prevent a recurrence</li> </ul> </li> </ul>
	Assessment of Covid-19 Risk
	Operation procedures and practices must be prepared to manage the COVID 19 risk. The EBRD workplace risk assessment check list providing specific and practical questions on COVID-19 risk assessment must be considered. The main area of assessment must include: general concern (awareness, action plan, and communication methods), cleaning and infection control, hand washing, multi-use locations, personal protective equipment, medical surveillance, emergency planning, interaction with local community.

These are in relation with non-fair working conditions.

#### Land-related risks

For standalone off-grid solar systems, installation takes place mostly on rooftops. In some cases, however, such systems may also be installed on the ground. Where the systems are installed for use by medium and small businesses, the most common practice of land acquisition (if required) would be purchase or lease on willing-buyer-willing-seller basis.

In cases where such systems are installed on the ground for the use by public institutions/ buildings, it is possible that land is acquired from individuals, families, or communities on involuntary basis. However, practice of involuntary resettlement in standalone off-grid solar systems sector can be generally assessed as small scale and limited. Nevertheless, compensation for land, assets, or loss of access to assets shall be completed in line with national regulations by public entities involved, and where applicable, requirements of investors and funders.<sup>17</sup> Economic displacement is possible (e.g. cutting of economic trees) and due compensation shall be provided by public entities involved.

Voluntary land donation (VLD)<sup>18</sup> practices are also possible in cases where such systems are installed on the ground for the use by public institutions/ buildings. VLD by communities or individuals should not be encouraged except (a) it meets the criteria set out in the VLD guidelines below and (b) the process is verified and approved by the financial institution providing funding for such projects prior to finalization of the donation and in any case before any installation of solar equipment ca take place.

#### Key VLD principles to be abided by are as follows (see also note 18):

VLD should only be authorized if they can (a) clearly document Informed Consent; (b) clearly document Power of Choice; and (c) meet the VLD guidelines of the project. The guidelines have been put into place to ensure that donations are indeed voluntary, that the donor is the legitimate owner of such lands, and that the donor is fully informed of the purpose of the donation and of the implications of donating the property.<sup>19</sup> If the land is donated on a conditional basis, the terms and conditions for the temporary use

<sup>&</sup>lt;sup>17</sup> E.g. World Bank

<sup>&</sup>lt;sup>18</sup> Voluntary land donation is strictly defined in international practice as the ceding of a property by an owner who is: a) fully informed; and b) can exercise free will, i.e., can refuse to sell or to donate. "Fully informed" means that the owner has complete information regarding the proposed activity and its impacts, its land requirements and its alternate activity sites, as well as his or her rights to compensation. The owner has also been provided with sufficient time to consider his or her disposition of the property, and the owner has knowingly rejected the right to renege on his or her initial decision. "Free will" means that the owner can reject the possibility of giving up his or her land. The operative principles in voluntary land donation are "informed consent and power of choice". The principles of VLD include (a) the potential donor or donors have been appropriately informed and consulted about the project and the choices available to them; (b) potential donors are aware that refusal is an option, and have confirmed in writing their willingness to proceed with the donation; (c) the amount of land being donated is minor (less than 10%) and will not reduce the donor's remaining land area below that required to maintain the donor's livelihood at current levels; (d) no household relocation is involved; (e) the donor is expected to benefit directly from the project; and (f) for community or collective land, donation can only occur with the consent of individuals using or occupying the land. The Borrower will maintain a transparent record of all consultations and agreements reached.

<sup>&</sup>lt;sup>19</sup> Voluntary land donation is strictly defined in international practice as the ceding of a property by an owner who is: a) fully informed; and b) can exercise free will, i.e., can refuse to sell or to donate. "Fully informed" means that the owner has complete information regarding the proposed activity and its impacts, its land requirements and its alternate activity sites, as well as his or her rights to compensation. The owner has also been provided with sufficient time to consider his or her disposition of the

of the property must be clearly documented. Each instance of VLD in a sub-project must be documented. This requires written notification indicating the location and amount of land that is donated and its intended use and a formal statement of donation, establishing informed consent and signed by each owner or user involved. Taxes to be paid by the land donor for registration of the land transfer, if applicable, should be covered in full by the project proponent.

#### Gender and vulnerable groups risks

Women are disproportionately affected by lack of reliable access to energy<sup>20</sup>. They have lower prospects for income generating activities, and limited access to finance. Women employment with solar business is part of fair labor practices. Gender Based Violence (GBV) is also a risk.

Prosperity could lead to social inequalities and discrimination. Excluding poorest groups in communities may create tensions. Also, lack of income opportunities can decrease social cohesion.

#### End users' health and safety

Risks are in relation with the safety of the installations and electrical equipment. Effective protection measures of the solar off grid installations will assure the safety of the end users. These include:

- Protective measures against electric shocks
- Protection against overcurrent
- Decoupling protection

Simultaneous presence of a DC generator and distribution network in AC, or storage battery will require the establishment of cut-off provisions and protections incorporating reinforced insulation of DC, also taking into account reverse currents, emergency shutdowns on both sides of the inverter, the automatic decoupling of the grid network, etc.

property, and the owner has knowingly rejected the right to renege on his or her initial decision. "Free will" means that the owner can reject the possibility of giving up his or her land.

<sup>&</sup>lt;sup>20</sup> ECOWAS (2020) - ROGEAP ESRM Strategy document

# Annex 2. Environmental and social screening questionnaire for solar businesses

#### Environmental and Social Questionnaire for Assessing E&S Systems and Capacity of Solar Businesses

Date .....

Section A. Company details		
Company name:		
Company type:		
Year of establishment		
Short description of the company core business:		
Company Address:		
(Name of the company / Street, Avenue, etc. name and number / Village / City / State/ Country/ Postal Code)		
Contact person for E&S issues:		
(Name and title / Phone /E-mail)		
Name and title of the person filling the questionnaire		
Website (if any):		
Section B. Business activities (solar	sector)	
Total number and value of business transactions over the last year in the solar photovoltaic systems sector):		
Type of solar photovoltaic systems	Number	Value (specify currency)
Solar Home Systems		
Stand-alone Solar Systems – Pico PV products		
Solar Irrigation Power Systems		
Other (specify)		
Section C. Environmental and Social	Risk Management	

What kind of environmental and social risks does the company currently have to manage?		
	Yes	No
Has the company been found to be involved in activities meeting the E&S exclusion criteria:		
<ol> <li>Production or activities involving forced labor<sup>1</sup></li> <li>Production or activities involving child labor<sup>2</sup></li> <li>Cross-border trade in waste and waste products, unless compliant to the Basel Convention and the underlying regulations<sup>3</sup></li> <li>Confirmed cases of occupational, health, and safety incidents or accidents<sup>4</sup></li> <li>Confirmed cases of Gender Based Violence/Sexual Exploitation and Abuse</li> <li>Confirmed cases of discrimination of vulnerable groups, including gender and disability</li> </ol> Footnotes <ol> <li>Confirmed reases of discrimination of vulnerable groups, including gender and disability</li> </ol> Foctnotes <ol> <li>Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.</li> <li>Employees may only be taken if they are at least 15 years old, as defined in the ILO Minimum Age Convention (C138, Art. 2), and ratified by each country. Children under the age of 18 will not be employed in hazardous work. Children will not be employed in any manner that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's ducation, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.</li> <li>The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, usually known as the Basel Convention, "hazardous wastes," are defined as (a) Wastes that belong to any category contained in Annex I, unless they do not posses any of the characteristics contained in Annex II; and (b) Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit. National definition of hazardous wastes for Nigeria under Basel Convention can be found here: http://www.basel.int/Countries/NationalDefinitions/NationalDefinitionsofHazardousWastes/tabid/14</li></ol>		
Labour-related risks (terms of employment, labor practices)?		
Occupational health and safety of workers?		
Waste management risks (e-waste, used batteries, other waste)?		
Gender and vulnerable groups issues?		
Land-related issues (customers need to purchase land, need land donation from communities, resettlement of households for installations on the ground for public buildings etc.?)		
Interactions with communities where the company works?		
Water/ resource efficiency issues?		
End users' health and safety?		
Environmental or social issues in supply chains (e.g. reputational risks due to well-known poor labor conditions of panel or other equipment manufacturers, non-responsive or weak grievance mechanism?)		

Other (please describe)?		
Environmental and / or Social Policy		
Does the company have an Environmental and / or Social Policy? (If yes, please attach any documents that can serve as evidence of such policy)		
Does the company conduct any environmental, social, gender awareness and SEA/SH training internally for its staff?		
Does the company conduct any E&S monitoring visits with its business customers?		
Human Resources Policy	1	1
Does the company have a Human Resources Policy?		
<i>If yes, please provide a brief description of key provisions of the HR policy and attach any documents that describe HR policy</i>		
Does the company's Human Resources Policy explicitly provide for the following:		I _
Compliance with country's labor laws and regulations		
Clear terms and conditions of employment and worker's rights related to hours of work, wages, overtime, compensation, benefits, etc.		
Non-discrimination and equal employment opportunities for women and vulnerable groups?		
Prohibition of child labor		
Prohibition of forced labor		
Is there a workers' grievance mechanism in place		
Ocupational Health and Safety (OHS)	1	1
Does the company have a policy or guidelines on occupational health and safety?		
If yes, please provide a brief description of key provisions of such policy/ guidelines and attach any documents that describe this		

Does the company have qualified internal designated coordinators, officers, or other staff responsible to oversee OHS issues?	
Does the company provide Personal Protective Equipment (PPE) to its workers?	
Does the company conduct regular OHS training for its workers and employees?	
Does the company have a clear, documented workplace incident and accident tracking system?	
Does the company have a Code of Conduct for workers? <i>If yes, attach copy</i>	
Does the company provide internal training on Gender Based Violence?	
Does the company have a monitoring system for workplace conditions and safety (e.g. regular internal audits, field visits by company OHS staff/	
coordinators etc.?)	
E-waste and other environmental issues	
Does the company have any policy or process for collecting used batteries (both lead acid and lithium ion), as well as used units and equipment from customers	
Does the company have any policy or process for collecting used batteries (both	
Does the company have any policy or process for collecting used batteries (both lead acid and lithium ion), as well as used units and equipment from customers <i>If yes, please describe the approach and process currently on place. What challenges does the company encounter with disposal and recycling of these</i>	
Does the company have any policy or process for collecting used batteries (both lead acid and lithium ion), as well as used units and equipment from customers <i>If yes, please describe the approach and process currently on place. What challenges does the company encounter with disposal and recycling of these</i>	
Does the company have any policy or process for collecting used batteries (both lead acid and lithium ion), as well as used units and equipment from customers <i>If yes, please describe the approach and process currently on place. What challenges does the company encounter with disposal and recycling of these</i>	
Does the company have any policy or process for collecting used batteries (both lead acid and lithium ion), as well as used units and equipment from customers <i>If yes, please describe the approach and process currently on place. What challenges does the company encounter with disposal and recycling of these</i>	
Does the company have any policy or process for collecting used batteries (both lead acid and lithium ion), as well as used units and equipment from customers <i>If yes, please describe the approach and process currently on place. What challenges does the company encounter with disposal and recycling of these</i>	
Does the company have any policy or process for collecting used batteries (both lead acid and lithium ion), as well as used units and equipment from customers <i>If yes, please describe the approach and process currently on place. What challenges does the company encounter with disposal and recycling of these</i>	

Does the company have any buy-back agreements with equipment manufacturers as part of its waste management approach?		
Does the company systematically collect use batteries and/ or units from its consumers?		
Does the company inform end users on the e-waste issue and provide them with information on proper e-waste management		
Does the company inform end users on other environmental issues? i.e. overexploitation of water resources*?		
*Only in consideration in case of solar water pumping installation activities		
Stakeholder engagement and grievance mechanisms	1	
Does the company have a plan for engaging with stakeholders, communities, customers (including a mechanism to receive and address complaints?		
If yes, please provide a brief description of key provisions of such policy/ guidelines and attach any documents that describe this		
Does the company engage in consumer and public education about environmental and social aspects of solar energy?		
Did the company identify key external stakeholders for its business?		
Does the company hold events or similar actions to engage with stakeholders relevant to its business?		
Is there a written mechanism to receive and address complaints? <i>If yes, please attach a copy of the procedure, website link etc.</i>		

	nd Social Screening Outcome
Select from the following:	
NOT ELIGIBLE FOR FUNDING	Please specify the reasons for no funding (such as activities meeting exclusion criteria identified, minimum E&S risk mitigation policies, procedures, and tools):
Category B1 <sup>21</sup> (Low risk)	Justification for category B1
Category B2 <sup>22</sup> (Medium risk)	Justification for category B2

Any other relevant information

<sup>&</sup>lt;sup>21</sup> Businesses with minimal or no adverse E&S impact requiring only simple ESMS with core components to address key risks and mitigation measures such as OHS procedures, HR manual, grievance redress mechanism, and a waste management policy <sup>22</sup> Businesses that require – in addition to the above – an ESAP and/or E&S covenants in legal/ loan agreements, as well as close monitoring, due to the severity of their potential adverse E&S impacts as a result of the size and/or characteristics of the solar business, and/or identified situations, such as occupational accidents or labor and GBV incidents, irregularities with regard to fair working conditions and terms of employment, or installers without applying safe installation measures

For category B2: Environmental and Social Action Plan (ESAP)	Please provide itemized action plan with specific actions, indicators of completion, timeline for completion, and verification methods (to be included in the loan/ grant agreement):
	1.
	2.
	3.
	4.
	5.

Date \_\_\_\_\_

Signature	(Credit/ loan	/ client/	/ relationship officer)	
·				

Verified by	(E&S coordinator)

## Annex 3. Environmental and social categorization memorandum

Client:	
Country:	
Business activity:	
Project Task Manager/Alternate Task Manager:	
ESRM and Compliance Div. Staff Responsible for Category Validation:	
Date of categorization:	
1. Category validated	Not eligible for funding B1 B2
2. Environmental and social issues identified during review:	
3. Policies, Standards or legal requirements triggered:	
4. Type and scope of Due Diligence conducted	
5. Date of category validation or revision:	
<ol> <li>Reason for category revision (if applicable):</li> </ol>	

### Environmental and Social Categorization Memorandum

## Annex 4. Environmental and social action plan template

#### The template below can be used to produce the Environmental and Social Action Plan (ESAP):

No.	Action required	Deliverable	Completion Indicator	Deadline
Environm	nental and Social Assessment	and Management Sys	tem	
Labor and	d Working Conditions			
Occupati	onal Health and Safety			
E-waste ı	management			
	-			
End users	s' health and safety			
Stakehol	der engagement and grievan	ce mechanisms (includ	ling SEA/SH related	GM)
Land-rela	ated issues (solar business to	verify that end users h	ave adequate mitig	ation measures in
place)		,		
Other iss	ues			

Date \_\_\_\_\_

Signature \_\_\_\_\_ (Credit/ loan / client/ relationship officer)

Signature \_\_\_\_\_ (Solar business representative, name, title)

## Annex 5. Environmental and social risk monitoring form

#### ENVIRONMENTAL AND SOCIAL RISK MONITORING FORM FOR SOLAR COMPANIES

*Please provide responses to the questions below. Please include additional sheets or attachments as required to provide details on questions that have been answered Yes.* 

Name of the company				
Completed by (name):				
Position in the company:			Date:	
Reporting period	From:	To:		

#### Environmental & Social Management System (ESMS)

General	Yes/No	
Has the company developed and implemented an ESMS?		If yes, please attach a copy of the ESMS to this report.
Please provide the name and contact information of the main responsible who has the overall responisibility for the implementation of the company ESMS		
Please provide current staffing of other core ESMS persons in the organization involved with ESMS implementation		
Policies & Processes	Yes/No	
<ul> <li>Has the company recently updated:</li> <li>E&amp;S policy</li> <li>HR policy</li> <li>OHS procedures</li> <li>Stakeholder engagement plan</li> <li>Grievance mechanism (including SEA/SH related GM)</li> </ul>		
Has management signed off on the required policies/procedures (E&S policy, HR policy, OHS procedures)?		If yes, please provide the date and internal communication indicating the same.

Is the Environmental and Social Action Plan (ESAP) being carried out? Please state any difficulties and/or constraints related to the implementation of the ESAP		If yes, please provide information on the evaluation against the performance and processes indicators, including deadlines.
If there is an ESMS already in place, have there been any updates to the ESMS or policy and procedures adopted by your company during the reporting period?		<i>If yes, please provide a copy of the updates including dates and reasons for the same.</i>
Please state any difficulties and/or constraints related to the implementation of the Environmental and Social procedures.		
Capacity	Yes/No	
Are the roles and responsibilities of the staff well defined and understood as per the implementation of the ESAP and/or ESMS?		Please provide details about the definition of the roles and responsibilities. Please describe the training (if any) provided to the ESMS persons and other team members during year.
Monitoring	Yes/No	
Do you have an internal monitoring and review plan?		If yes, please describe the plan and its processes, also considering it agains the performance and processes indicators
Have you implemented an external communication and grievance mechanism?		If yes, please describe the grievance mechanism
Reporting	Yes/No	
Is there an internal process to report internally on Environmental and Social issues?		<i>If yes, please explain the process, reporting format and frequency and actions taken if any.</i>

# Annex 6. Environmental and social reporting form for financial institutions (off-grid solar investments)

#### Annual Environmental & Social Report for Financial Institutions for Off-grid Solar Investments

This form serves as a supplement to the main Annual Environmental & Social Report for Financial Institutions as required by [ECOWAS/ BOAD]. Where [ECOWAS/ BOAD] is providing funding to a financial institution only in the form of the sector-specific credit line for off-grid solar, this annual reporting form is the only one required.

Background on the Financial Institution	
Name of Financial Institution:	
Address:	
Country:	
Authorized representative (e.g. Head of Credit Risk):	
I certify that the data contained in this report completely and accurately repre	sents operations during this reporting period.
Signature:	
Title: Date:	
Contact Details	
Telephone / Mobile:	
E-mail:	
Date of Report: Reporting Period:	
Is your institution involved in the due diligence of color businesses at ony store)	□ Yes
Is your institution involved in the due diligence of solar businesses at any stage?	□ Yes □ No
	<ul> <li>Not applicable</li> <li>If Yes does the local branch receive</li> </ul>
	<ul> <li>If yes does the local branch receive results of due diligence?</li> </ul>
	<ul> <li>If Yes who undertakes monitoring of clients/borrowers in such cases?</li> </ul>
	clients/borrowers in such cases?
If possible please provide contact details of the person responsible for environmental and social due diligence at Group/Parent company Headquarters.	Name:
	Title:
	Phone/Mobile:
	E-mail:

Section 1: Compliance with E&S requirements for financial institutions						
1.1 What is the name of the employee with primary overall responsibility for environmental and social						
matters within the Institution? Name:						
Title:						
Phone/mobile:						
E-mail:						
Did the Institution nominate this position of responsibility as a result of [ECOWAS/ BOAD]	□ Yes					
Requirements?	□ No					
1.2 Breakdown of standalone off-grid solar sector portfolio by type of transacti	on and environmental and social					
risk categorization						
<b>1.2.1</b> Does the Institution finance any B2 clients according to the risk categorization in the off-	□ Yes					
grid solar guideline?	□ No					
1.2.2 Does the Institution prepare E&S screening questionnaire and E&S risk categorization	🖬 Yes					
memorandum?	□ No					
<b>1.2.3.</b> Does the Institution reject transitions with solar businesses due to (i) identification of activities meeting exclusion criteria for off-grid solar businesses and / or (ii) failure to meet minimum ESMS criteria						
Attach a list of all off-grid solar clients financed through support from [ECOWAS/ BOAD] by loan size, transaction/loan type and E&S risk category (B1/ B2) Attach a list of transitions rejected due to (i) identification of activities meeting exclusion criteria for off-grid solar businesses and / or (ii) failure to meet minimum ESMS criteria						
1.3 Financial Institution's Environmental and Social due diligence and Monitori	ng Procedures					
<ul> <li>1.3.1 If the Institution did have Environmental and Social Procedures prior to the Agreement, have [ECOWAS/ BOAD] requirements?</li> <li>We have improved our Procedures</li> <li>No changes made</li> </ul>	you improved them as a result of					
1.3.2 Describe how environmental and social procedures have been integrated into the transaction approval process.						

<ul> <li>1.3.3 State any difficulties and/or constraints related to the implementation of the [ECOWAS/ BOAD] environmental and social requirements for standalone off-grid solar sector</li> <li>1.3.4 Confirm compliance with the [ECOWAS/ BOAD]</li> </ul>		We can confirm compliance with the [ECOWAS/ BOAD]		
exclusion criteria for standalone off-grid solar businesses?		exclusion criteria [No/ the following] transactions were rejected due to conflict with the exclusion criteria The following transactions have been financed following approval from [ECOWAS/ BOAD] :		
Monitoring of clients/borrowers activities				
1.3.5 In the Legal Agreements with the Institution's clients/borrowers, does the Institution specifically reclients/borrowers to comply with local environment social regulations/standards?		<ul> <li>Yes</li> <li>No</li> </ul>		
<b>1.3.6</b> Describe how the borrower's environmental and soc performance is monitored (e.g. site visit by bank sta inspection by environmental/health authorities; cop updated or renewed permits, reports from the borro other (please specify).	ff; bies of			
and labour regulatory authorities to monitor their environmental and social performance?	and labour regulatory authorities to monitor their			
<b>1.3.8</b> Give details of any bad loans due to environmental, I safety, labour or other social grounds				
<b>1.3.9</b> Give details of any transactions rejected on environm health, safety, labour or other social grounds	nental,			
<b>1.3.10</b> Give details of any material environmental and socia associated with borrowers during the reporting peri Any accidents/litigation/complaints <sup>23</sup>	□ Yes/ No			
1.4 Environmental Capacity and Support				
<ul><li>1.4.1Is the institution familiar with the Environmental and Social Risk Guidelines for Off Grid Solar Businesses (Guidelines) which is downloadable from ECOWAS/BOAD web-sites?</li></ul>	Busine The st delega	II operating staff are familiar with the ROGEAP Off Grid Solar ess Guidelines and have access to it when carrying out their work aff to whom environmental and social risk management has been ated are familiar with the guidelines imiliar		
<ul> <li>L4.2 If the Institution has received the guidelines, or downloaded it from ECOWAS/BOAD web-sites, has the Institution incorporated the environmental and social components into its appraisals of clients?</li> <li>Yes</li> <li>No</li> </ul>				

<sup>&</sup>lt;sup>23</sup> Any incidents of non-compliance with applicable environment, social and health and safety regulations and standards, such as fines, penalties or excess fees for non-compliance; Any incidents of non-compliance by borrowers with environmental and social covenants/conditionality imposed by the Bank

<b>1.4.3</b> Which aspects of the guidelines are most useful to						
your institution?						
Are there any areas in the guidelines which could be	Yes /No - If yes please describe?					
improved upon to assist your institution?	, ,					
Have there been any problems with the information provided in the guidelines or any technical	Yes /No					
difficulties in using the guidelines?						
1.4.4 Did investment / operating staff receive	Yes, all operating staff in all branches received environmental training					
environmental and social training during the reporting period with regard to E&S risk	<ul> <li>Only a few staff, including the person with overall responsibility for environmental and social risk management.</li> </ul>					
management in off-grid solar sector?	<ul> <li>No training was provided</li> </ul>					
<b>1.4.5</b> Who provided the environmental training?	ECOWAS/BOAD     Another Depart organisation or training organisation? Places provide					
	Another Donor organisation or training organisation? Please provide name of organisation.					
	In-house training provided by the Institution					
	When was the last training provided? insert dates(s)					
1.4.6 Does the FI require environmental and social due diligence training from ECOWAS/BOAD with regard	Yes     No					
to E&S risk management in off-grid solar sector ?						
1.5 Stakeholder Engagement						
<b>1.5.1</b> Is there a point of contact for dealing with public	Name:					
enquiries and concerns related to environmental and social matters?	Title:					
	Phone/mobile:					
	E-mail:					
<b>1.5.2</b> How many complaints or grievances did the Institution	1					
receive from members of the public or civil society organisations during the reporting period specifically						
with regard to E&S risk management in off-grid solar						
sector? Summarise any issues raised in the complaints or grievances and explain how they were						
resolved:						
1.6 Best Practice						
<b>1.6.1</b> Has the FI signed any national or international	C Yes					
agreements or declarations concerning environmental and social issues? (e.g. United Nations	No No					
Statement by Banks on Environment and Sustainable						
Development or The Equator Principles)						
<b>1.6.2</b> Does the FI have any environmental polices or procedures for good environmental management in	Yes     No					
its own offices/buildings?	<ul> <li>If yes, please describe</li> </ul>					
<b>1.6.3.</b> Does the FI apply its environmental and social	Yes					
policies/procedures to business lines other than off- grid solar?	<ul> <li>No</li> <li>If Yes, please describe</li> </ul>					
Section 2: Compliance of the Financial Institution with Labour and Working Conditions Requirements						

2.1 What is the name of the employee with p the Institution?	rimary overal	I responsibility for Human Resource Management in
Name:		
Title:		
Phone/Mobile:		
E-mail:		
2.2 Human Resources Management		
<ul> <li>2.2.1 Have there been any changes to the following policies or terms and conditions during the reporting period:</li> <li>Non-discrimination and equal opportunity policy</li> </ul>	Yes 🗖 No 🗖	If yes, please give details:
<ul> <li>Employment of young persons under age 18</li> <li>Wages (wage level, normal and overtime)</li> <li>Overtime</li> <li>Working hours</li> <li>Grievance mechanism for workers</li> <li>Union recognition or negotiation</li> <li>Health &amp; safety</li> </ul>		
<ul> <li>2.2.2 Does the company have policies and/or procedures for any of the following:</li> <li>Gender equality</li> <li>Equal pay for work of equal value</li> <li>Anti-harassment/bullying</li> <li>Promoting family friendly work and the work/life balance</li> </ul>	Yes	If γes, please give details:
2.2.3 Were there any collective redundancies during the reporting period?	Yes 🗖 No 🗖	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, how they were selected, and consultation undertaken:
2.2.4 Are there any planned redundancies or additions to the workforce in the next year?	Yes 🗖 No 🗖	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, and selection and consultation process:
<b>2.2.5</b> Have employees raised any grievances with the institution during the reporting period?	Yes 🗖 No 📮	If yes, please state how many, summarise the issues raised in grievances (disaggregated by gender) and explain how the Institution has addressed them:
<b>2.2.6</b> Have there been any strikes or other collective disputes related to labour and working conditions at the Institution in the reporting period?	Yes 🗖 No 🗖	If yes, please summarise nature of disputes and how they were resolved

<b>2.2.7</b> Have there been any court cases related to labour issues during the reporting period?	Yes 🗖	If yes, please summarise the issues contested and outcome.
	No 🗖	

# Annex 7. Sample occupational health and safety guidelines for solar companies

#### **Occupational Health and Safety guidelines for solar companies**

You should adapt the checklist to your particular sector or workplace and to the characteristics of the workforce as specific workers' groups may have specific needs. Some extra items may need to be covered, or some points omitted as irrelevant.

For practical and analytical reasons, a checklist presents problems/hazards separately, but in workplaces they may be intertwined. Therefore, you have to take into account the interactions between the different problems or risk factors identified.

Solar company will provide a safe and healthy work environment, taking into account inherent risks in its particular sector and specific classes of hazards in the work areas, and specific threats to women. It will take steps to prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, as far as reasonably practicable, the causes of hazards. OHS Guideline will also include steps, as relevant, for HIV/AIDS prevention.

Issues to be addressed:

- Are managers and workers aware of the potential risks related to solar power installations and committed to their prevention?
- Has the organization adopted a practical participative approach (worker involvement) to problemsolving?
- Have appropriately trained staff undertaken comprehensive risk assessments?
- Are all reported cases of accidents and incidents being managed?
- How is the effectiveness of the measures taken to prevent risks caused by solar power installations across their life cycle being evaluated and monitored?

#### Checklist for the prevention of Occupational Health and Safety Risks

For example:

- Does the hazard exist at the workplace?
- Are the hazards eliminated, and where not possible controlled to minimize negative influences on the safety and health of all people involved?

Answering 'NO' to one of the following questions indicates a need for improvements to be made in the workplace.

	QUESTIONS					
1. Ins	1. Installation, maintenance, decommissioning					
Work	organization, psychosocial risks					
1.1	Is information on the solar system, the electrical installation and the building					
	that is required to perform the work safely available to the workers?					
1.2	Is training provided on safe working procedures?					

	Is there sufficient cooperation, communication and exchange of information	[
1.3	among the different actors involved (for example building owner and the	
	workers) in order to allow the safe performance of the work?	
1.4	Are workers involved in the workplace risk assessment?	
1.5.	Is appropriate PPE supplied according to the OHS risks identified and staff is	
	trained in its use and maintenance?	
Worki	ng at height, slips and trips, falls	
1.6	Can work at height in general, and in particular on slanting roofs be avoided?	
1.7	When ladders are used to reach the place of work at height, has the	
	appropriate ladder been chosen and is it used safely?	
1.8	When roof work is necessary, has the condition of the roof been assessed to	
	ensure that the roof is dry and free from slipping and tripping hazards such as	
	moss, vent pipes, equipment lying around, etc.?	
1.9	In the case of skylights or holes/cavities, are they safeguarded?	
Electri	icity-related risks (PV), burns/scalds	
1.10	Are only qualified persons allowed to work on electrical equipment?	
1.11	Are workers aware that low voltages can cause surprise shocks and thereby	
	falls?	
1.12	Are workers aware that small amounts of sunlight can produce a voltage	
	potential in the PV system and shock or arc-flash hazards?	
1.13	Are workers provided with suitable PPE when risk reduction measures at	
	source are not sufficient?	
1.14	Are workers accompanied always by at least one colleague when working on electrical	
	systems, thereby eliminating lone working?	
	ds of musculoskeletal disorders	
1.15	Is work arranged so that manual handling operations, such as lifting and	
	carrying are avoided and, where not possible, reduced to the minimum?	

### Annex 8. Requirements for HR policy for solar companies

#### **HR Policy Requirements**

Solar company will have in place an HR policy that expresses its commitments, at a minimum to:

- (1) comply with all relevant national labor laws and regulations;
- (2) promote the fair treatment, non-discrimination, and equal opportunity for workers;
- (3) establish, maintain, and improve the worker-management relationship;
- (4) allow workers' organizations and collective bargaining;

(5) have in place a grievance mechanism for workers ensuring that this mechanism is adapted for the ethical, confidential, and survivor-centered handling of SEA/SH related complaints in the workplace

(6) explicit commitment not to employ forced labor or child labor, including not hiring workers below minimum age, as defined by national law and not employ children in hazardous work.

(7) include a code of conduct for workers that provides for rules of appropriate behavior, including prevention of gender-based violence

Solar company will adopt and implement human resources policies and procedures appropriate to its size and workforce that set out its approach to managing workers consistent with the requirements of national law. It will provide workers with documented information that is clear and understandable, regarding their rights under national labor and employment law and any applicable collective agreements, including their rights related to hours of work, wages, overtime, compensation, and benefits upon beginning the working relationship and when any material changes occur. It will provide and inform workers of an internal grievance process to raise their workplace concerns.

#### Code of Conduct for Workers on GBV/SEA/SH: Core Principles

The following core principles should be, using clear and unambiguous language with clear links to sanctions in the event of breaches, at the center of the Code of Conduct adopted by the contractor, and apply to all its employees without exception:

- Solar companies are obliged to create and maintain an environment which prevents gender-based violence with a focus on sexual exploitation and abuse (SEA) and sexual harassment (SH) in the workplace and promotes the implementation of the code of conduct. Managers at all levels have particular responsibilities to support and develop systems which maintain this environment.
- All codes of conduct to for the prevention and mitigation of GBV should contain clauses that state that:
  - Gender-Based Violence, with specific definitions and examples of SEA/SH constitutes an act of gross misconduct, providing grounds for sanctions, penalties and/or termination of employment – there will be zero tolerance for any GBV/SEA/SH case on the work site and in its surroundings.
  - ii. Sexual interactions by employees at any level with individuals under the age of 18, as defined in the applicable national legislation of the country in which the contract is being

executed, are prohibited. Mistaken belief regarding the age of the individual is not acceptable as a defense.

- iii. Exchange of money, employment, goods, or services for sex, including sexual favours or other forms of humiliating, degrading or exploitative behaviour, are prohibited.
- iv. Sexual interactions between contractors' employees at any level and members of the communities surrounding the work place that are not agreed to with full consent by all parties involved in the sexual act are prohibited (see definition of consent above). This includes relationships involving the withholding, promise or actual provision of a benefit (monetary and non-monetary) to community members in exchange for sex such sexual activity is considered "non-consensual" within the scope of this Code.
- All managers and employees should receive a clear written statement of the company's requirements with regard to preventing GBV/SEA/SH, and a mandatory training course should be provided for all employees before they commence work on site which ensures that they are familiar with these principles, and regular refresher sessions should be organized during staff meetings or other events to ensure continued reminders of prohibited behavior.
- The manager will ensure that the principles regarding GBV/SEA/SH are displayed prominently at the work site in places where they will be seen be all employees.
- The contractor also commits to raising awareness on the code of conduct and its associated grievance mechanisms within the project affected communities.
- The code of conduct will outline procedures for community and staff members to lodge a complaint to the grievance and accountability mechanism to be established, should the code of conduct be violated.

If a manager develops concerns or suspicions regarding any form of GBV by one of his/her direct reports, or by an employee working for another contractor on the same work site, s/he shall immediately refer the case to the competent authorities (Police etc.) if the survivor expresses the desire to do so (with the exception of countries that have Mandatory reporting where it is the employers legal obligation to report) and, at the same time, consider the adoption of disciplinary measures including, where appropriate, termination of employment.

### Annex 9. Guidance on used battery collection and recycling

#### Introduction

Many countries and communities are already struggling with contaminated sites and soil pollution from unregulated car battery recovery and recycling. Unsound end-of-life management and recycling can cause severe and even fatal lead poisoning of people working in the battery recycling sector. Batteries used in solar systems can be of two main types – lead acid and lithium ion. Both present different challenges with disposal and recycling.

The health of people living around small and industrial-scale lead smelters, in particular children, are severely impacted for life. A recent report by the Lead Recycling Africa Project and Oeko-Institute revealed that already every year more than 1.2 million tons of used lead-acid batteries and 800,000 tons of lead require sound management in Africa.

Environmentally, when disposed alongside household trash, batteries end up in landfills/waste dumps. As the battery casing corrodes, chemicals leach into the ground water from where they contaminate the water bodies. Acid and lead particulates also contaminate the soil and become airborne when dry. Healthwise, cadmium and nickel are known human carcinogens, lead has been linked to birth defects and to neurological and developmental damage, and mercury is also highly toxic, especially in vapor form. Excessive levels of lead can affect a child's growth, cause brain damage, harm kidneys, impair hearing and induce behavioral problems, and in adults, lead can cause memory loss and lower the ability to concentrate as well as harm the reproductive system.

In terms of lithium ion batteries, the recycling value is generally considered to be low. Therefore, the emphasis would be on encouraging safe collection of used units and proper disposal. Recycling of lithium ion batteries is possible but, according to research and practice, makes little economic sense. Lithium ion batteries can be recycled, but only at specified locations. Projects are currently underway in Europe, the United States and Japan to develop effective and feasible recycling technologies with a complete life cycle analysis of recycling.

#### Guiding principles for recycling and disposal policy of a solar company

If solar company has an existing battery collection and/or recycling policy, this should be submitted with the loan application. It is preferred that batteries are recycled to potentially reuse some of its components, where economically and technically feasible. This would be equally applicable for expired batteries and the batteries that will be replaced within the warranty period due to manufacturing fault or reasons outlined in warranty conditions.

The company shall systematically collect used battery units and engage with communities on the importance of recycling, if such program is in place. The suggested options that can be considered are:

- A. **Collection of Batteries by solar companies:** Solar company representatives will make arrangement to collect the battery units from the consumer and store it in the local offices. Solar company will take necessary measures to ensure safe storage of the batteries. It may be feasible for solar company to send the warranty expired batteries to a central location.
- B. Potential battery disposal / recycling options can be as follows:

- **Buy-back arrangements with manufacturers**: Solar company can put in place buy-back arrangements with the battery manufacturers and ensure safe transportation of the batteries to the manufacturer. SHS company and manufacturers can mutually decide on cost sharing of collection and transportation of expired batteries, for example sign a Memorandum of Understanding signed between them;
- **Recycling at own facilities:** Larger solar companies may consider establishing their own recycling facilities;
- Recycling at centralized locations in the country: If recycling facilities for either lead acid or lithium ion batteries exist, solar companies must use those that are inspected the government and are considered safe and complainant with national regulations and World Bank standards;
- **Disposal:** Lead acid batteries are hazardous waste. Lithium ion batteries may also qualify as household hazardous waste.<sup>24</sup> Solar company will ensure that the batteries are disposed in a particular designated area ensuring environmental and occupational health and safety in line with World Bank E&S standards and Environmental, Health, and Safety Guidelines of the World Bank Group. Solar company will also comply with the government regulations, if any, regarding disposal of any of the components used in the battery units.

<sup>&</sup>lt;sup>24</sup> In some countries, they are classified as non-hazardous waste.

# Annex 10. Sample stakeholder engagement plan and grievance mechanism for solar businesses

#### I. Sample Content of a Stakeholder Engagement Plan

A good Stakeholder Engagement Plan should:

- Describe regulatory, lender, company, and/or other requirements for consultation and disclosure.
- Identify and prioritize key stakeholder groups, focusing on Affected Communities.
- Provide a strategy and timetable for sharing information and consulting with each of these groups.
- Describe resources and responsibilities for implementing stakeholder engagement activities.
- Describe how stakeholder engagement activities will be incorporated into a company's management system.

The scope and level of detail of the plan should be scaled to fit the nature and needs of the project (solar businesses). A sample outline of a Stakeholder Management Plan can be as follows:

#### 1. Introduction

Briefly describe the project, including design elements and potential social and environmental issues. Where possible, include maps of the project site and surrounding area.

#### 2. Regulations and Requirements

Summarize any legal, regulatory, lender, or company requirements pertaining to stakeholder engagement applicable to the solar business operations (if any).

#### 3. Summary of any Previous Stakeholder Engagement Activities (if applicable)

If the company has undertaken any activities to date, including information disclosure and/or consultation, provide the following details:

- Type of information disclosed, in what forms, and how it was disseminated
- The locations and dates of any meetings undertaken to date
- Individuals, groups, and/or organizations that have been consulted
- Key issues discussed and key concerns raised
- Company response to issues raised, including any commitments or follow-up actions
- Process undertaken for documenting these activities and reporting back to stakeholders

#### 4. Project Stakeholders

List the key stakeholder groups who will be informed and consulted about the project. These should include persons or groups who:

- are directly and/or indirectly affected by the solar business
- have "interests" in the project that determine them as stakeholders
- have the potential to influence project outcomes or company operations

#### 5. Stakeholder Engagement Program

• Summarize the purpose and goals of the program

- Briefly describe what information will be disclosed, in what formats, and the types of methods that will be used to communicate this information to each of group, taking into account the needs of vulnerable groups (such as women, elderly, illiterate, persons with disabilities)
- Briefly describe the methods that will be used to consult with each of group
- Describe how the views of women and other relevant sub-groups including vulnerable and/or disadvantaged groups will be taken into account during the process
- Describe any other engagement activities that will be undertaken

### **6. Management Functions (***This is applicable to Energy Service Companies that may be involved in a Public Institution Projects***)**

How will stakeholder engagement activities be integrated into the company's environmental and social management system and with other core business functions?

- Who will have management oversight for the program?
- What are the plans for hiring, training, and deploying staff to undertake stakeholder engagement work?
- What will be the reporting lines between community liaison staff and senior management?
- How will the company's stakeholder engagement strategy be communicated internally?
- What management tools will be used to document, track, and manage the process?
- For projects or company operations involving contractors, how will the interaction between contractors and local stakeholders be managed to ensure good relations?

### **7.** Monitoring and Reporting (This is applicable to Energy Service Companies that may be involved in a Public Institution Projects)

Describe any plans to involve project stakeholders (including affected communities) or third-party monitors in the monitoring of project impacts and mitigation programs. Describe how and when the results of stakeholder engagement activities will be reported back to affected stakeholders as well as broader stakeholder groups?

#### 8. Timetable

Provide a schedule outlining dates and locations when various stakeholder engagement activities, including consultation, disclosure, and partnerships will take place and the date by which such activities will be incorporated into the company's management system.

#### 9. Resources and Responsibilities

Who within the company will be responsible for carrying out these activities? What budget has been allocated toward these activities? Indicate what staff and resources will be devoted to managing and implementing the Stakeholder Engagement Program. Integration of the community liaison function with other core business functions is also important, as is management involvement and oversight.

#### **10.** Grievance Mechanism

Describe the process by which people affected by the business can bring their grievances to the company for consideration and redress. Who will receive public/users grievances, how and by whom will they be resolved, and how will the response be communicated back to the complainant?

#### II. Sample Grievance Mechanism for non-SEA/SH related complaints

Solar business especially Energy Service Companies providing services to Government and Public Institutions will set up a project-specific grievance mechanism (GM) for people to report concerns or complaints, if they feel unfairly treated or are affected by any of the activities.

For companies involved in the distribution of SHS equipment and for productive uses, will have to indicate in their transactions with users, the issues of warranty, what contact numbers to call in case they have challenges with the system or payments.

The mechanism will amongst other things: (a)provide information about project implementation; (b) provide a forum for resolving grievances and disputes at the lowest level;(c) resolve disputes relatively quickly before they escalate to an unmanageable level;(d) facilitate effective communication between the project and affected persons; (e) win the trust and confidence of project beneficiaries and stakeholders and create productive relationships between the parties. The mechanism is envisaged to be at multiple levels and will address such complaints, including logging, tracking, and resolving grievances promptly during and after the implementation of the Project.

The company will have dedicated person to be responsible for setting up and maintaining the GM that allows general public in the project area and affected communities or individuals to file complaints and to receive responses in a timely manner. The system will also record and consolidate complaints and their follow-up. This system will be designed for handling complaints perceived to be generated by the project or its personnel. It may also include disagreements about compensation and other related matters.

The GM will be communicated to all stakeholders in the course of its community engagement activities, and will make public available a record documenting the responses to all grievances received. The GM will remain available throughout the project cycle. It is expected to address concerns promptly an effectively, in a transparent manner that is culturally appropriate and readily accessible to all project affected parties, at no cost and without retribution. It also allows for anonymous complains to be raise and addressed.

The GM should include the following elements. More details see Table below.

- First, ensure that pathways to submitting grievances that are appropriate and accessible for women and girls are identified;
- Different ways in which users can submit their grievances, including the ways identified for women and girls as noted above, which may include submission in person, by phone, text message, mail, email or via a website;
- A mapping of available medical, psychosocial, and legal services to refer survivors of GBV/SEA/SH to, and a referral pathway with names/phone numbers of focal points at each of these services included as an annex/component of the GM;
- Service conventions established with service providers to ensure that survivors can be referred and not have to incur any costs of their own, but that the project will receive invoices and ensure compensation for services that survivors of GBV/SEA/SH related complaints accept referral to;
- A log where non-sensitive grievances are registered in writing and maintained as a database (sample log is included in **Annex 11**);

- A password or lock and key protected log where sensitive grievances such as those pertaining to GBV/SEA/SH are registered, and protocols outlining who has access to these passwords/keys (ensuring that it is limited to very few individuals and that a unique code is established for each survivor and used on all further documentation of GBV/SEA/SH cases and follow-up);
- Trained GBV/SEA/SH focal points who manage all aspects of registering, reporting basic information to the World Bank on a case (Date of incident, date of report, information on age/sex/gender of survivor, information on age/sex/employer of accused, if the grievance is project-related in the words of the survivor, and the services that a survivor was referred to and accepted), and accompanying survivors through the referral process for all GBV/SEA/SH related cases;
- Publicly advertised procedures, setting out the length of time users can expect to wait for acknowledgement, response, and resolution of their grievances;
- Transparency about the grievance procedure, governing structure and decision makers; and
- An appeals process (including the national judiciary) to which unsatisfied grievances may be referred when resolution of grievance has not been achieved.
- A separate process for dealing with local complaints about sexual exploitation and abuse and gender-based violence that is sensitive towards and protects the confidentiality of the complainant including the elements noted above and ensuring that complaints are reported immediately to the World Bank and that survivors are immediately referred to services prior to investigations as to whether or not the incident is project related. Information should also be provided to victims about local services to provide medical, psychosocial, and if available, legal support.

S

Process	Description	Time	Other Information
		Frame	
Identification of grievance	Face to face; telephone; letter; mail; e-mail; website; recorded during public/ community interaction; others The grievance can also be passed through other parties, such as the chief office because the public are more conversant with this office.	1 Day	Email address; hotline number
Grievance assessed and logged	Significance assessed and grievance recorded or logged (i.e. in a log book) It will be prudent to have a grievance record book where the grievances are recorded for follow up. Grievances concerning sexual exploitation and abuse/gender-based violence should be treated as confidential. Only the nature of the complaint and the processing outcome	3-6 Days	Significance criteria: Level 1 –one off event; Level 2 – complaint is widespread or repeated; Level 3- any complaint (one off or repeated) that indicates breach of law/ policy

#### Grievance Management Process (for non-sensitive/GBV/SEA/SH related complaints)

	should be recorded.		
Grievance is	Acknowledgement of grievance through	3 Days	
acknowledged	appropriate medium		
Development of	Grievance assigned to appropriate party	4-8 Days	
response	for resolution		
	Response development with input from		
	management/ relevant stakeholders		
Response signed	Redress action approved at appropriate	8-15	
off		Days	
Implementation	Redress action implemented and update of	5-9 Days	
/communication	progress on resolution communicated to		
of response	complainant		

If complainants are not satisfied with the grievance process, even after arbitration, the affected persons will still have the right to present their complaint through the court system.

#### Annex 11: Grievance Log (for non-SEA/SH complaints)

Case no.	Date Claim Received	Name of Person Receiving Complaint	Where/how the complaint was received	Name & contact details of complainant (if known)	Content of the claim (include all grievances, suggestions, inquiries)	Was Receipt of Complaint Acknowledged to the Complainant? (Y/N – if yes, include date, method of communication & by whom)	Expected Decision Date	Decision Outcome (include names of participants and date of decision)	Was Decision communicated complainant? Y/N If yes, state when, by whom what method of communica

ed to m and via cation	Was the complainant satisfied with the decision? Y/N State the decision. If no, explain why and if known, will pursue appeals procedure	Any follow up action (and by whom, by what date)?

Annex 12. EBRD workplace risk assessment check list

## Workplace risk assessment EBRD briefing note

## Covid-19

April 15 2020

Briefing to clients during the coronavirus crisis: The Covid-19 pandemic gives rise to unparalleled environmental, health and safety and social risks and impacts, presenting significant challenges to companies and their workforces, their contractors and suppliers, as well as to host communities across the economies where the EBRD invests. The EBRD has prepared briefing notes to highlight some critical areas of concern that many clients may need to address in their Covid-19 response planning, together with references to additional resources containing further details of how to minimise or mitigate risks and impacts. The information provided in this briefing note will be updated as necessary.

This briefing note is not a compliance document and should be taken only as a source of information and analysis. It does not constitute medical or legal advice and is not a substitute for professional advice from international public health organisations such as the World Health Organization (WHO), national public health authorities and national governments, which should be consulted for qualified and more detailed information. We strongly encourage our clients to seek daily updates from these sources as the coronavirus pandemic evolves. No representation, warranty or undertaking, expressed or implied, is made in respect of any information contained herein or the completeness of the content of this briefing note, or any conclusion or judgements described herein. Certain parts of the briefing note link to external internet sites. No responsibility is accepted for the content of any external references.

The risk of Covid-19 is relevant across all economies and sectors where the Bank invests and is not restricted to operations in the healthcare sector. Like any business risk, the risk of workers and local communities contracting Covid-19 needs assessment, which should be carried out regardless of the stage of a project, and appropriate measures should be introduced to manage the risk. It is paramount that your business operations follow the national guidance provided by your country, although technical guidance to help you prepare your business for Covid-19 is available on the World Health Organization website (<u>www.who.int</u>).

The EBRD has developed a workplace risk-assessment checklist (see below) that can provide you with specific and practical questions you may wish to consider when assessing the risks of Covid-19 at your workplace. This list is not exhaustive, although it may provide you with ideas on where you may need to modify your operational procedures and practices to prepare and manage the risk.

Concern	Questions to consider
General	Are all workers and contractors aware of the actions that the WHO recommends should be taken to reduce the risk of contracting Covid-19?
	Have you developed a Covid-19 action plan that is tailored to your operations?
	Do you need to mobilise any additional resources to support the implementation of Covid-19 actions?
	Has someone been nominated to take responsibility for your Covid-19 action plan to ensure it is being implemented effectively?
	What information do you need to share with workers, contractors, visitors and customers?
	What communication methods are used and how frequently?
	What training is required for workers and contractors? Do they know how to wear personal protective equipment (PPE) correctly?
	Have workers been trained in the hazards, risks and control measures associated with the recommended actions relating to Covid-19?
	Can some work tasks that carry a risk of Covid-19 infection be avoided? If they cannot be avoided, can they be modified to reduce the risk of worker exposure (remote working, staged working and so on)?
	Do you need to modify your existing procedures and instructions so that workers undertake their tasks in a different way?
	Is there adequate supervision of workers and contractors to ensure that revised methods of working and new procedures are followed?
	Are additional safety rules required and how will these be enforced?
	Have you identified high-risk or vulnerable workers and introduced appropriate measures to protect them?
	Do you need to collaborate with any local communities or the local public health authorities?

Concern	Questions to consider
Cleaning and infection control	<ul> <li>What cleaning regimes do you have in place and how are these being modified to take account of the Covid-19 risk?</li> <li>Are cleaning frequencies adequate for the risk in particular work areas and common touch points?</li> <li>Are sufficient supplies of suitable cleaning and antibacterial materials available for all work areas?</li> <li>Has the plan considered what actions are required if suitable cleaning materials are in short supply (critical areas only, for example)?</li> <li>Are cleaners protected from risk by using modified working methods to prevent contact with surfaces and supported by using the correct PPE when cleaning?</li> <li>Have you identified common touch points such as handrails, door handles, lift buttons and so on, and have you adopted modified measures to prevent contact?</li> <li>Have sanitising points been clearly communicated to workers, contractors and visitors, with adequate signage?</li> <li>Do you promote good respiratory hygiene and ensure that tissues and appropriate disposal options are available in the workplace?</li> <li>Are worker transport methods subject to increased cleaning and has social distancing been introduced?</li> </ul>
Hand- washing	<ul> <li>How do you promote regular and thorough handwashing by employees, contractors and visitors entering your workplaces?</li> <li>Are there enough washing points with hot water and soap?</li> <li>Are there any remote areas where handwashing is not available – what are the risks there and how do you address them?</li> <li>Do you need to establish handwashing points and require handwashing before workers, contractors and visitors enter offices or other buildings?</li> </ul>
Multi- use locations	<ul> <li>How do you manage the risks in sleeping accommodation or other communal areas where workers may congregate, such as canteens, toilets or showers?</li> <li>Have you introduced social distancing in these areas?</li> <li>Do you need to close any recreational areas and other locations where social distancing is not possible?</li> <li>How is the risk of Covid-19 transmission being reduced in office areas?</li> <li>Can hot-desking arrangements be avoided? Are keyboards and other devices which are frequently used by many people being regularly sanitised?</li> <li>Can workers work from home and undertake meetings or other engagements remotely by Skype, Zoom, FaceTime and so on?</li> <li>Is only critical training taking place and other training deferred to a later date?</li> <li>Can any meetings and large gatherings of workers, contractors and visitors be avoided?</li> </ul>
Personal protective equipment (PPE)	<ul> <li>Is PPE being used in addition to other control measures and only used as a last resort?</li> <li>What PPE is needed and available for workers, contractors and visitors and is this issued to those at greatest risk?</li> <li>Have risk assessments been reviewed and have they identified the required PPE for each work task?</li> <li>Is the PPE the correct selection for the risks and does it provide the protection factor needed?</li> <li>What international standards are used for the PPE and are technical standards reviewed to confirm protection factors such as breakthrough times?</li> <li>If respiratory protection equipment (RPE) is available or needed does it provide the correct protection factor, for example, FFP3, FFP2?</li> <li>Have workers undergone training for the PPE they are to use and have appropriate fit tests been carried out?</li> <li>Is PPE being changed periodically and disposed of accordingly?</li> <li>Does the action plan consider the actions required if PPE is in short supply and which workers are deemed critical for use of the PPE?</li> </ul>

Concern	Questions to consider
Medical surveillance	Are workers informed about all the potential symptoms of the Covid-19 disease and about what to do if they suspect that they have contracted the virus?
	Are all workers fit for work or if unwell told to stay at home?
	How are workers being assessed to confirm that they are well – for example, self-reporting or physical checks at the start of the day?
	▶ What procedures are in place for workers who fall ill with suspected Covid-19 symptoms while at work?
	Are current workplace medical arrangements adequate for your workplace?
	Do you need to undertake a revised first-aid needs assessment and increase any first-aid provisions?
	What protection do you provide to first aiders?
	Are you aware of the location of the local medical centres in the event that workers require medical intervention?
	Do you have enough first aiders or emergency responders and sufficient cover if some become ill?
Emergency planning	Are emergency preparedness measures and plans in place to deal with large numbers of workers becoming infected with Covid-19?
	Is a communication plan established to inform all key stakeholders including other authorities such as public health authorities?
	What will be the impact on your business and can operations continue in a safe manner?
	Have critical workers been identified and do you have appropriate measures to shield these workers to ensure any continuity arrangements?
	What will be the response if you are informed of a worker who has contracted Covid-19?
	Are lockdown procedures developed in the event of project shutdown?
	Will operations be safe if you need to lock down and will additional assistance be needed, for example from the police?
	If an incident occurs on site, are the local emergency services able to assist or do you need to establish self-rescue and response?
	► Do you need to avoid certain high-risk tasks due to reduced emergency services coverage during this period?
Local community	How do you communicate with neighbours and adjacent business regarding the Covid-19 controls that you are adopting on site and the support that you are offering the community, for example, cleaning, medical equipment or transport?
	How would you deal with the delivery of any supplies – such as food or other services or goods – from local communities and from other suppliers?
	How will the community be shielded from any workers who may be infected?
	How are you limiting employees' movement and interaction with local communities?
	Are restrictions in place to prevent social gathering of workers in local communities (for example, in cars, cafes and so on)?
	Do you have procedures in place for dealing with specific concerns from local communities about workers carrying out activities that may be considered risky behaviour and about being exposed to verbal or physical abuse for working?

#### Further resources:

WHO COVID-19 website

WHO Getting your workplace ready for COVID-19

WHO Employers and workers

WHO Coronavirus disease (COVID-19) technical guidance: Points of entry and mass gatherings

WHO Coronavirus disease (COVID-19) advice for the public

WHO Coping with stress during the COVID-19 outbreak WHO Travel and tourism

WHO Travel Advice

WHO library of resources in various languages

WHO Coronavirus disease (COVID-19) advice for the public: Myth busters