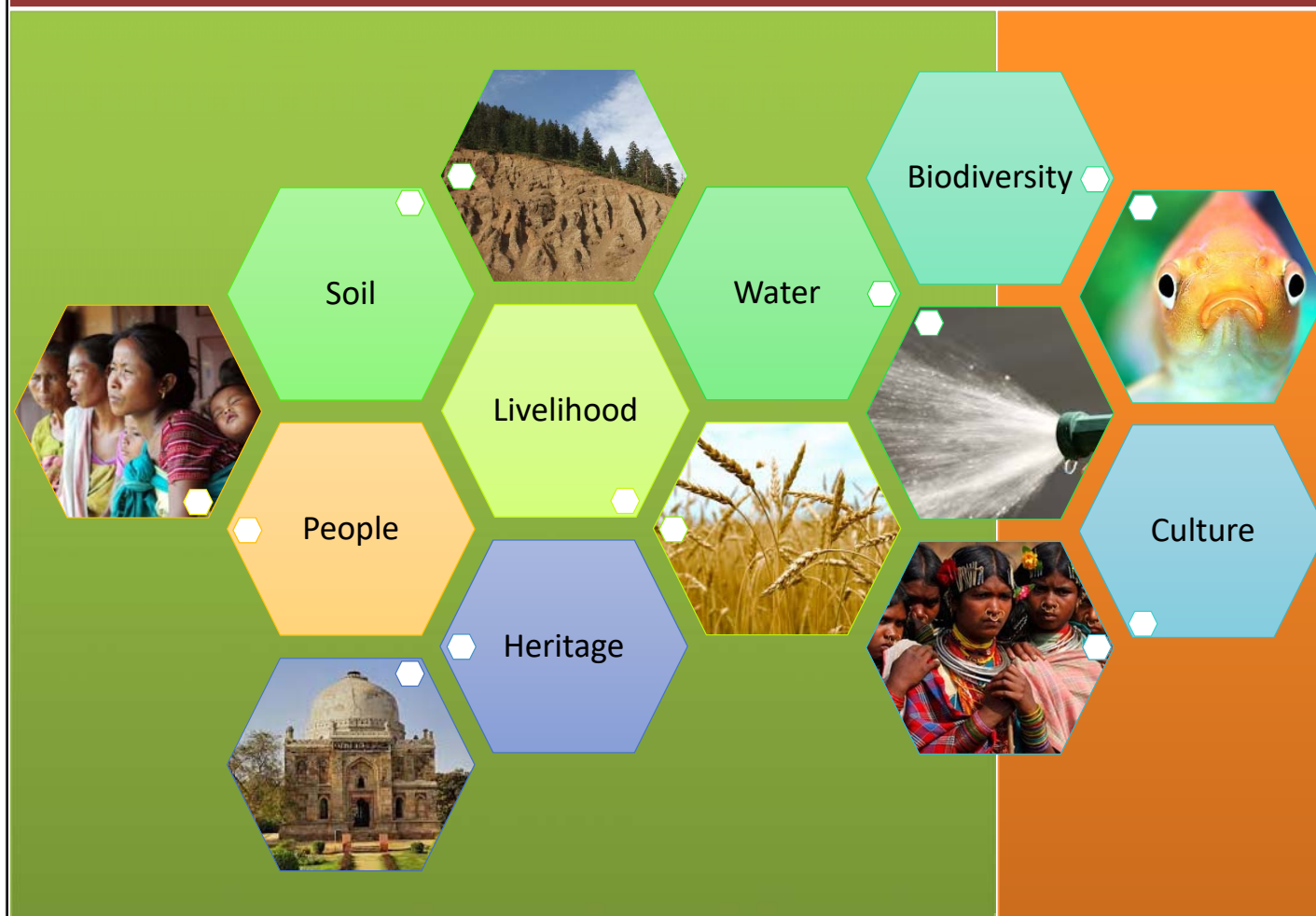


# ENVIRONMENTAL & SOCIAL MANAGEMENT SYSTEM



Environment & Social  
Management Unit

Version 02.0

01-11-2019



**Indian Renewable Energy Development Agency Ltd.**  
(A Government of India Enterprise)

Registered Office: Core 4A, East Court, India Habitat Centre, New Delhi 110003  
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## ***Note to Users:***

This document is the ESMS Manual describing the process and procedures by which IREDA staff review, approve, and monitor Renewable Energy projects that are subject to IREDA loan financing. Certain procedures are solely for “internal” use within IREDA, others require input by the borrowers, and some are mainly applicable to the contractors/consultants engaged by the borrowers to design, build and/or operate their projects.

To help streamline and clarify those processes relevant for the various involved parties, various ESMS documents have been grouped into separate annexes, depending on purpose and user:

- **Annex A** contains policies and reference documents that provide general guidance on IREDA’s ideology for environmental and social safeguards
- **Annex B** contains the information required from borrowers at the time of loan application on environmental and social issues related to the project
- **Annex C** consists of E&S screening checklists that must be completed by IREDA, based on the information gathered during the Project Appraisal /Due Diligence.
- **Annex D** contains the Project Categorisation Forms
- **Annex E** contains generic and sector specific E&S loan covenants that form part of the loan agreement with the borrower and need to be adhered to during the project construction, operation and de-commissioning
- **Annex F** contains E&S monitoring formats to facilitate standard reporting on E&S issues during the project cycle
- **Annex G** consists of grievance redressal mechanism for resolving E&S issues
- **Annex H** is the legal register of regulations pertaining to E&S issues in India

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## **GLOSSARY OF ACRONYMS AND TERMS**

<b>Acronym</b>	<b>Term</b>
ADB	Asian Development Bank
AfD	Agency Française de Développement (French Development Agency)
CST	Concentrated Solar Technology
CtE	Consent to Establish
DD	Due Diligence
DPR	Detailed Project Report
E&S	Environment and Social
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ESAP	Environmental and Social Action Plan
ESDD	Environmental & Social Due Diligence
ESIA	Environmental and Social Impact Assessment
ESMS	Environmental & Social Management System
GOI	Government of India
H&S	Health and Safety
HR	Human Resources
IFC	International Finance Corporation
IPP	Indigenous People's Plan
IREDA	Indian Renewable Energy Development Agency
JICA	Japan International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau (German Credit Institute for Reconstruction)
MNRE	Ministry of New and Renewable Energy
PV	Photovoltaic solar technology
PS	Performance Standard of IFC
RE	Renewable Energy
REA	Rapid Environmental Assessment
RP	Resettlement Plan
SEP	Stakeholder Engagement Plan
ToR	Terms of Reference
WB	World Bank

## DEFINITIONS

<i>Term</i>	<i>Meaning</i>
Action Plan	A plan of action acceptable to borrower to achieve compliance with the IREDA environmental and social standards.
Borrower	A company/developer that has applied for or received funding directly from IREDA – same as Client.
Client	See Borrower.
Detailed Project Report (DPR)	To be submitted together with Project Loan Application
EHS Guidelines	World Bank Group Environmental Health and Safety Guidelines.
Environmental & Social Action Plan (ESAP)	A plan that proposes measures to manage aspects identified in the ESDD to acceptable levels in line with the requirements of IREDA and its lenders.
Environmental & Social De Diligencie (ESDD)	An assessment and analysis of environmental and social risks and opportunities associated with a project to ensure that such risks would not present a potential liability to IREDA. (Some lenders use the abbreviation SEDD).
Environmental & Social Impact Assessment (ESIA)	The process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of project proposals prior to major decisions being taken and commitments made.
Environmental & Social Management System (ESMS)	The ESMS is the set of policies, procedures, tools and internal capacity at IREDA to identify and manage the environmental and social risks posed by the funded projects.
Excluded Activity	Any business or activity listed on the Harmonised IREDA Exclusion List (Annex A2).
Legal Register	A compilation of applicable legislations
Lenders	Institutions that offer Lines of Credit to IREDA
Lines of Credit	Finance facilities utilized to finance operations that fulfil the institutional conditions set by the lenders and meets international best practice.
Project	The RE project of the borrower to be funded by IREDA.

## 1. INTRODUCTION

### 1.1 Background

The Indian Renewable Energy Development Agency (IREDA) is a Non-Banking Financial Institution (NBFC), operating under the administrative control of Ministry of New and Renewable Energy (MNRE). It is a Public Limited Government company and has been granted 'Mini Ratna' status by the Government of India.

IREDA was incorporated on 11th March 1987 as a Public Limited Company u/s 617 of the Companies Act, 1956 and it received Certificate of Commencement of Business with effect from 21st April 1987. IREDA provides term loans for renewable energy (RE) projects. The sectors eligible for assistance from IREDA are:

- Solar Energy (including both Photovoltaic (PV) and Concentrated Solar Thermal (CST));
- Solar Rooftop
- Decentralised/Off grid RE
- Solar Irrigation Pumps
- Wind Energy;
- Small Hydro Power (below 25 MW);
- Biomass and Co-generation;
- Energy Efficiency and Energy Conservation;

Renewable energy projects are considered as the most environmentally benign and socially acceptable projects. However, IREDA being a responsible financial institution has adopted Environmental and Social Safeguards Policy (E&S Policy). As a result of this policy, Environmental and Social Management System (ESMS) has been developed to identify and mitigate whatever minimal impacts the projects have.

IREDA's financing stems from its own sources, lines of credit from international funding institutions (ADB, AfD, EIB, JICA, KfW, World Bank etc.) and bonds. The international lenders have their own established environmental and social (E&S) policies and guidelines that must be followed when funding projects using the respective lines of credit. This system will also help IREDA to conform with the lenders' E&S policies and guidelines.

The ESMS is primarily based on International Finance Corporation (IFC) Performance Standards, ADB Safeguard Policy Statement (2009), World Bank's E&S Framework and World Bank Group's General Environmental Health and Safety Guideline (EHSG) as well as the EHS Sector Guidelines. ESMS is designed to be "universally applicable" (as far as feasible) to address the various lender requirements; the same basic procedures described in this ESMS will therefore be applied regardless of the funding source. The requirements of the ESMS are also in line with applicable Indian laws and regulations at national, regional and local levels.

*Note: Since this ESMS incorporates the requirements of several lenders, some of the terminologies used herein may differ from those used in the various E&S policies and guidelines of the lenders. The terminologies are explained in the Definitions section at the beginning of this ESMS Manual; where applicable, further explanations are also given later in the footnotes of the text.*



## 1.2 Overview of ESMS Structure

The main building blocks of the ESMS include policies, identification of risks and impacts, management programs, organizational capacity and competency, emergency preparedness and response, stakeholder engagement, monitoring and review.

These elements are integrated in IREDA's project financing mechanism as applicable throughout its process of project application, screening, and due diligence before a loan is granted, as well as within borrowers' obligations in monitoring and reporting after the loan has been sanctioned. As shown in *Figure 1.1* below, the ESMS reflects a combination of the ADB Safeguard Policy Statement, IFC PS1 elements and the IREDA project flow process.



## 1.3 Applicable Environmental and Social Safeguard Aspects

This ESMS is designed to be comprehensive and “universally applicable” to address the various lender requirements. In order for this to be achieved, IREDA will ensure that all loan applications are reviewed and evaluated for following safeguards:

- Indian laws and regulations applicable to E&S topics and IREDA funding sectors as specified in the E&S Legal Register (Annex H);
- Lender-specific E&S reporting requirements; and
- IREDA's E&S Categorisation Guidelines (Annex B1).

Moreover IREDA will ensure that all loan applications are reviewed and evaluated for following safeguards:

### 1. Environmental

- a. Soil Quality, Erosion etc.

- b. Air Quality
- c. Water scarcity, efficiency, contamination etc.
- d. Waste disposal
- e. Noise and Traffic
- f. Bio-diversity, Flora and Fauna etc.
- g. Cultural, religious, historical heritage

**2. Social & Community**

- a. Land Acquisition
- b. Resettlement and Rehabilitation
- c. Gender Parity
- d. Labour laws
- e. Livelihood, economic displacement
- f. Occupational Health & Safety
- g. Community Health & Safety

**3. Indigenous**

- a. Ethnic Minorities
- b. Scheduled Tribes
- c. Customary Beliefs and Practices
- d. Traditional means of livelihood

## **2. POLICIES**

### **2.1 Overview**

There is a commitment at the top management level within IREDA to ensure the development, establishment and maintenance of the ESMS. This commitment is reflected in policies that are developed by IREDA and approved by the Board of Directors. They are declarations of the Agency's E&S objectives and principles guiding the IREDA funded activities.

### **2.2 Purpose of Policies**

The policies describe IREDA's philosophy and approach to managing E&S risks and impacts in its projects.

### **2.3 Commitment**

IREDA has adopted the Environmental & Social Safeguards Policy (Annex A1) under which IREDA is committed to:

- 1.** Ensure that the borrowers comply with all relevant E&S policies, laws, and regulations of the GoI and states of India. Additionally, they also remain responsive to E&S requirements of the lenders wherever a lender's line of credit is involved. This can be achieved by following the processes stipulated in this ESMS;
- 2.** Achieve a balance between developmental imperatives, environmental sustainability and social well-being in its operations and give due importance to E&S management considerations in appraising and financing RE projects to avoid, or where avoidance is not possible, minimize, and mitigate adverse environmental and social impacts and risks, if any;
- 3.** Integrate assessments to identify and evaluate the E&S impacts, risks, and opportunities of the projects into its business operations and risk management analysis;
- 4.** Take informed financing / funding decisions based on robust categorization of projects according to E&S risk levels, ascertained through preliminary screening of E&S aspects and, if and where required, commensurate with the scale of the project via E&S impact assessment studies;
- 5.** Work with the clients to get them to consider project-related E&S management risks in their projects and, if such risks are identified, ensure that the clients adequately address those risks during the life cycle of the project through adequate E&S management systems and plans;
- 6.** Ensure E&S and relevant legal requirements are complied with by its projects. To the extent reasonably possible, IREDA will also ensure the requirements of the applicable international standards are met by the Borrowers.
- 7.** Ensure that effective mechanisms are in place and in use for compliance with IREDA's E&S principles during project appraisal and implementation, and to undertake corrective actions, if required. This will include visits by IREDA representatives to proposed project sites as appropriate with the scale of the project and the project risks;
- 8.** Develop the ESMS to deliver the commitments under this policy and to monitor compliance with this policy across its project portfolio and periodically report back to its management and to its Lenders;

- 9.** Maintaining and improving the ESMS to deliver the commitments under this policy and to monitor compliance with this policy across its project portfolio and periodically report back to its management and to its Lenders;
- 10.** Ensure competent and functional Environmental & Social Safeguard Unit (ESSU) within IREDA to undertake the responsibilities of implementation of the ESMS across all sectors at project level, as well as emphasize on management review and reporting procedures;
- 11.** Continuously develop and improve institutional capacity and designate E&S professionals with adequate competence and experience to understand, assess and manage E&S impacts and risks associated with the projects which IREDA finances and provide necessary guidance/inputs to the clients to practice effective E&S management systems at project level; and
- 12.** Constant efforts towards gender equality and ensuring that its activities do not inappropriately impact the gender parity.
- 13.** Communicate IREDA's E&S principles to external and internal stakeholders.

All IREDA policies and other elements of the ESMS are reviewed and updated periodically in order to ensure its continued applicability to IREDA's activities.

### **3. MANAGEMENT & ORGANISATION**

The success of implementing this ESMS depends on the commitment of management and employees of the agency. It also relies on clearly defined roles, responsibilities, accountabilities and authority on E&S issues.

The organisation and structure of IREDA is described in Section 3.1 and illustrated in *Figure 3.1* below, and it can also be found on [IREDA's website](#). Duties and responsibilities relating E&S issues for each of the roles within the IREDA organisation are described in Section 3.2.

#### **3.1 Overview of IREDA's E&S Organisational Structure**

IREDA is led by a Board of Directors that includes Whole Time Functional Directors, Part-Time Government Nominee Directors and Part-Time Non-Official Directors. The Committee of Directors (COD) consists of functional directors for finance and technical matters, and is chaired by the Chairman and Managing Director, who has the ultimate responsibility over the Agency and its operations. The Audit Committee of Board consists of a part time Director nominated by the government, internal and statutory auditors. A part time non-official Director, who is independent, sits in both COD and the Audit Committee of Board

The core functions of the company are supported by various departments, including the Vigilance Department, Human Resources (HR) Department, System Group, and Corporate Affairs & Company Secretariat Department.

Financial Director of IREDA oversees the Legal Department, Finance and Accounts Department and the Planning Group, while the Technical Director, oversees the Technical Services Department.

Responsibility for E&S matters lies with Environment & Social Safeguard Unit (ESSU) of the Technical Services Department. The board level responsibility for E&S lies with the Technical Services Director who reports to the Board.

Technical Services Department includes the following technical services areas:

- Wind;
- Hydropower;
- Solar Energy (including both PV and CST);
- Biomass & Cogeneration Energy;
- Energy Efficiency and New and Emerging Technologies (including waste to energy, offshore wind, biofuels etc.);
- Access to Energy/Off-Grid

Each technical service area is managed by a Sector Head or Technical Service Manager (e.g. Head of Wind and Hydro Energy Service). He or she is supported by officers in each sector or service areas (e.g. sector/service officers for Wind, etc.).

The ESSU has been established within the Technical Services Department as a cross-cutting unit supervising E&S affairs from all technical services or sectors. The ESSU is managed by the ESSU Manager, who is responsible for the compliance of IREDA with ESMS requirements. The ESSU Manager is supported by E&S Specialist.

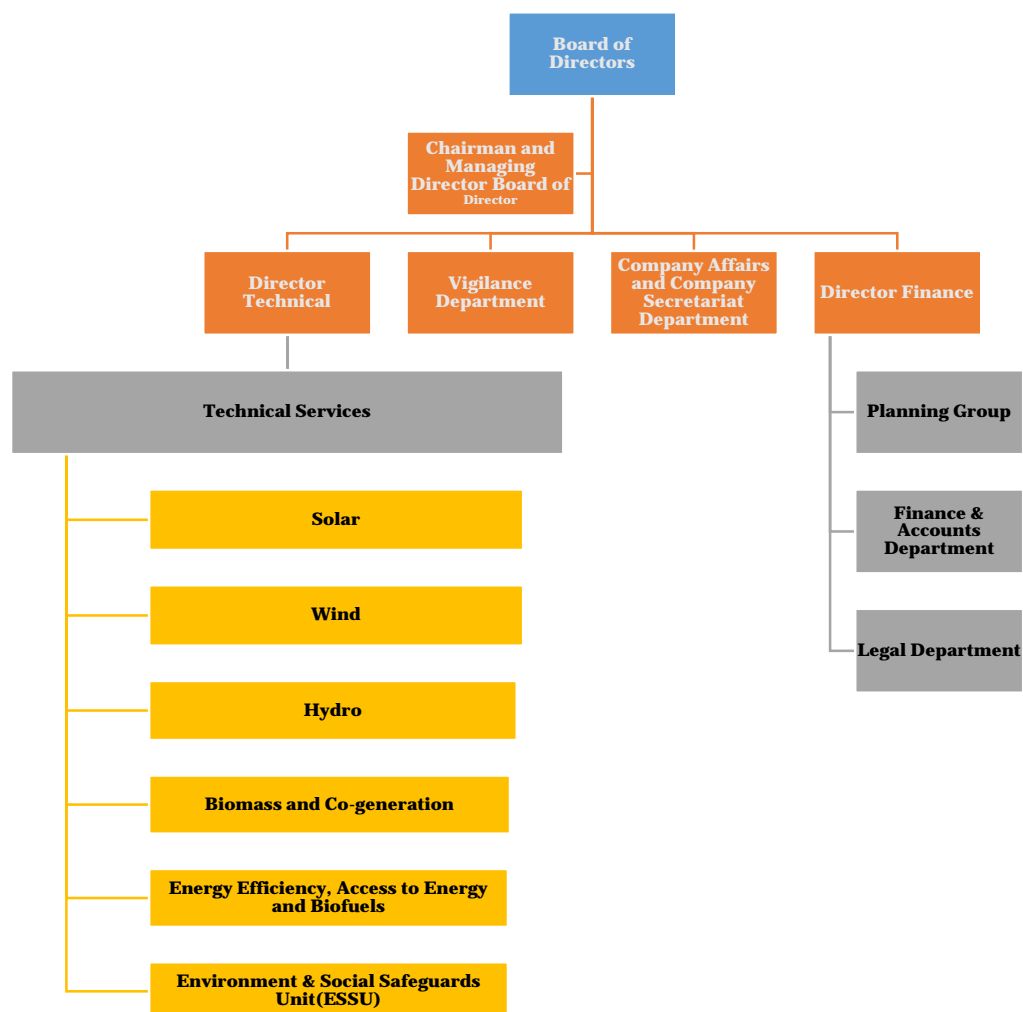


Figure 1: Organogram of IREDA

### 3.2 Roles & Responsibilities within ESMS

Role/Title	Duties & Responsibility related to E&S Management
<b>Chairman &amp; Managing Director</b>	Overall responsibility for Business Principles and ESMS at IREDA.
<b>Technical Director</b>	Overall responsibility for ESMS for Technical Services. ESMS reporting to the Board of Directors. Has the right to reject project's application for financing Responsible for managing E&S issues for projects within the Technical Services, including Wind & Hydro, Solar, Biomass & Cogeneration, and Energy Efficiency, Waste to Energy and Biofuels.
<b>ESSU Manager</b>	The role is held by the Deputy General Manager. Responsible for managing the ESSU. Report to Technical Director. Responsible for approving the project categorization forms. Has the right to recommend rejection of project's application for financing

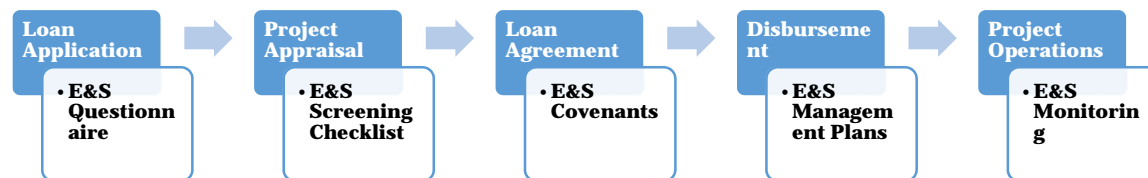
		Ensures agency-wide resources are made available for E&S management.
<b>Environmental &amp; Social Specialist</b>		<p>Position is held by Assistant Environment Officer.</p> <p>Reporting to the ESSU Manager.</p> <p>Support the ESSU Manager in managing the ESSU and coordinate issues on environment, social and health &amp; safety.</p> <p>Implementation of ESMS (environmental, social, resettlement, stakeholder engagement, and health &amp; safety aspects).</p> <p>Ongoing liaison at a project level with technical project leads and implementers.</p> <p>Direct oversight for projects' environmental and social issues, and prepare and submit all organizational review and monitoring reports, including the periodic (annual or semi-annual) environmental and social report to lenders (e.g. KfW, ADB, etc.) depending on the lender requirements for their lines of credit.</p> <p>Liaise with management to ensure adequate resources have been committed to allow for the effective implementation of this ESMS policy and procedures.</p>
<b>Sector Heads</b>		<p>Supports the ESSU in getting requisite information/ documentation/ response from the project developer</p> <p>Responsible for reviewing the project categorization forms</p> <p>Checks/Supports ESSU in checking the compliance of E&amp;S covenants before disbursements</p> <p>Helps in getting the monitoring reports from the project developers</p>
<b>Project Team of Technical Services Department</b>		<p>Assists ESSU in conducting the required due diligence from the initial project screening appraisal stage.</p> <p>Assist clients/borrowers in completing the E&amp;S documents.</p> <p>Ongoing liaison at a project level with technical project leads and implementers.</p>
<b>Regional Sector/Service Delegates</b>		Periodic monitoring and reporting of E&S aspects, in accordance to the ESMS requirements.
<b>Financial Director</b>		Responsible for the Legal Department, Planning Group, and Finance & Accounts (F&A) Department.
<b>Legal Compliance Manager</b>		<p>Position held by Head of Legal Department</p> <p>Responsible for the IREDA's legal affairs including drafting agreements and covenants.</p> <p>Ensure the E&amp;S covenants and agreed action plans are incorporated into the funding agreements.</p> <p>Providing legal inputs to identified E&amp;S requirements.</p>
<b>Head of Department Manager)</b>	<b>HR (HR</b>	<p>Responsible for IREDA's human resources and administrative support services.</p> <p>Ensure where required, that the adequate and appropriate staff with the right expertise are hired to undertake the E&amp;S roles and responsibilities within IREDA.</p> <p>Ensure capacity building of the staff in line with the roles and responsibilities within ESMS</p>
<b>Community Officer (CLO)</b>	<b>Liaison</b>	<p>Position held by Public Relations Officer</p> <p>Responsible for internal and external communications.</p> <p>Part of the Grievance Redress Mechanism.</p>

	Responsible for co-ordinating the response to a complaint and serving as the main point of contact with the complainant. This includes receiving and reporting complaints, maintaining the complaints Log, supporting the resolution of Complaints; and liaison with the Complainant.
<b>Complaint Owner</b>	<p>Part of the Grievance Redress Mechanism.</p> <p>A role of IREDA's client/borrower.</p> <p>Responsible for investigating and resolving a complaint within IREDA's client/borrower. This includes conducting investigations, proposing resolutions, implementing corrective actions and co-ordinating with the CLO and other parties. The Complaint Owner will usually be the manager of the unit that gave rise to the complaint.</p>



## 4. PROJECT FINANCING PROCESS

IREDA follows a robust framework to ensure environmental and social safeguards in the projects funded by IREDA. This includes various forms/checklists and formats to be completed at different stages of the project. The E&S Safeguard Process is integrated within the project financing cycle of the project as shown in the figure below.



*Figure 2: E&S Interventions in IREDA'S Loan Application Process*

The key steps involved with IREDA's processing of a loan request by a borrower are defined schematically in the ESMS "Project Review Process Diagram" as shown in *Figure 1* above, and described further throughout Sections 4.1 to 4.6. The Project Review Process provides a clear step-by-step guidance for actions to be taken by IREDA's staff (or in some cases the borrower), beginning with the loan application and due diligence (comprising project screening & categorisation, and project review) to loan agreement and finally monitoring & reporting. The Project Review Process has cross-references to the various checklists, forms and reporting templates that may be required depending on the nature and risks of the RE project; all these necessary documents are included as Annexes to this ESMS Manual.

By following this Project Review Process, IREDA can ensure that its actions related to sub-project funding are in conformance with the lender requirements, and with other relevant management systems of IREDA. The Review Process integrates all relevant Environmental and Social issues.

*Note: the process depicted in the Diagram and described below reflects only the main activities related to management of E&S risks in line with the lender requirements; the overall process for loan application by borrowers is a more complex undertaking as described on the IREDA website.*

*Furthermore, some of the actions/steps described in the Diagram (and the related annexes) may or may not be applicable to a particular project, depending on the state of progress of the sub-project development at the time of initial loan application (eg early planning/Greenfield, construction, operation/expansion).*

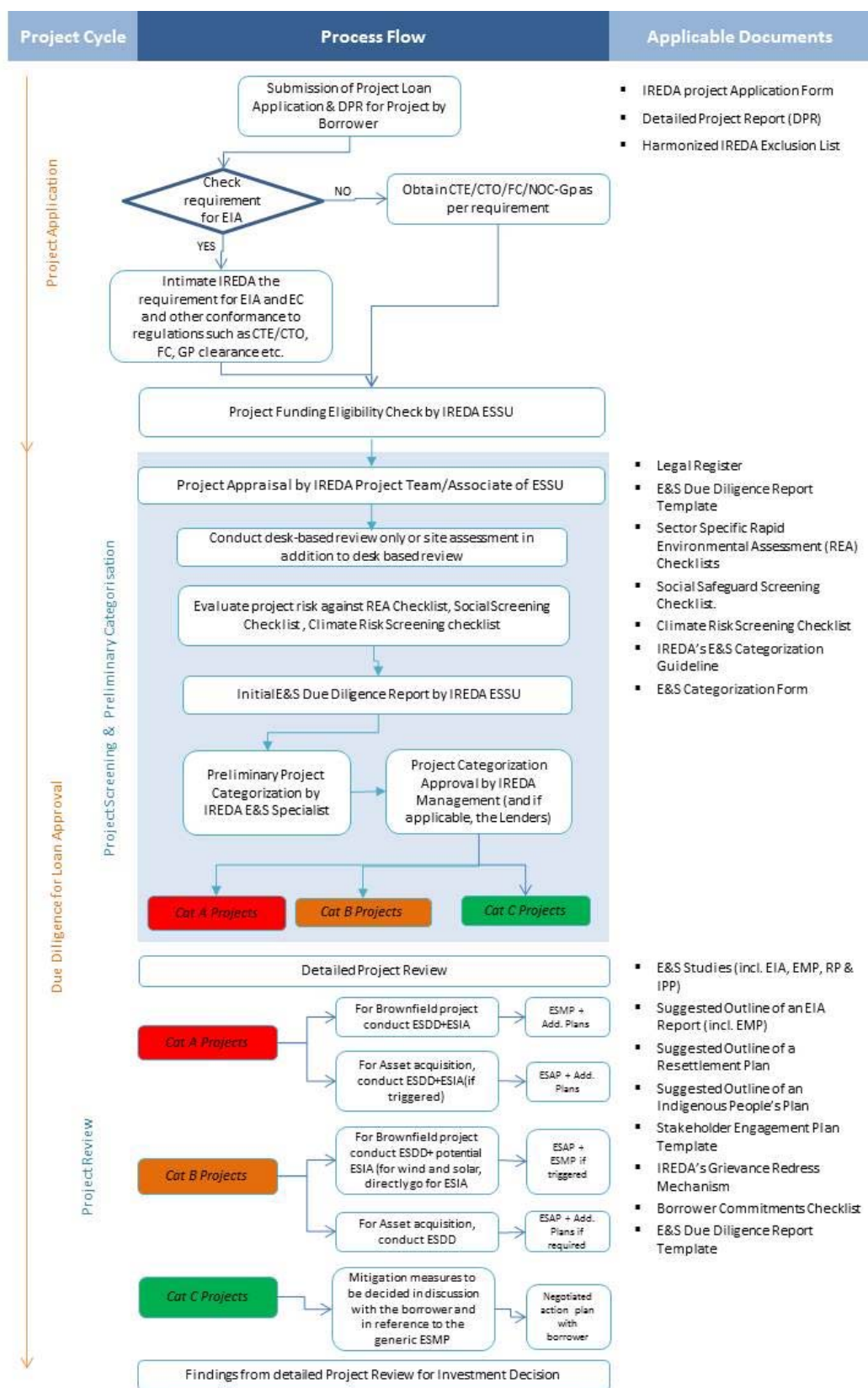


Figure 3: ESMS Project Review Process Diagram

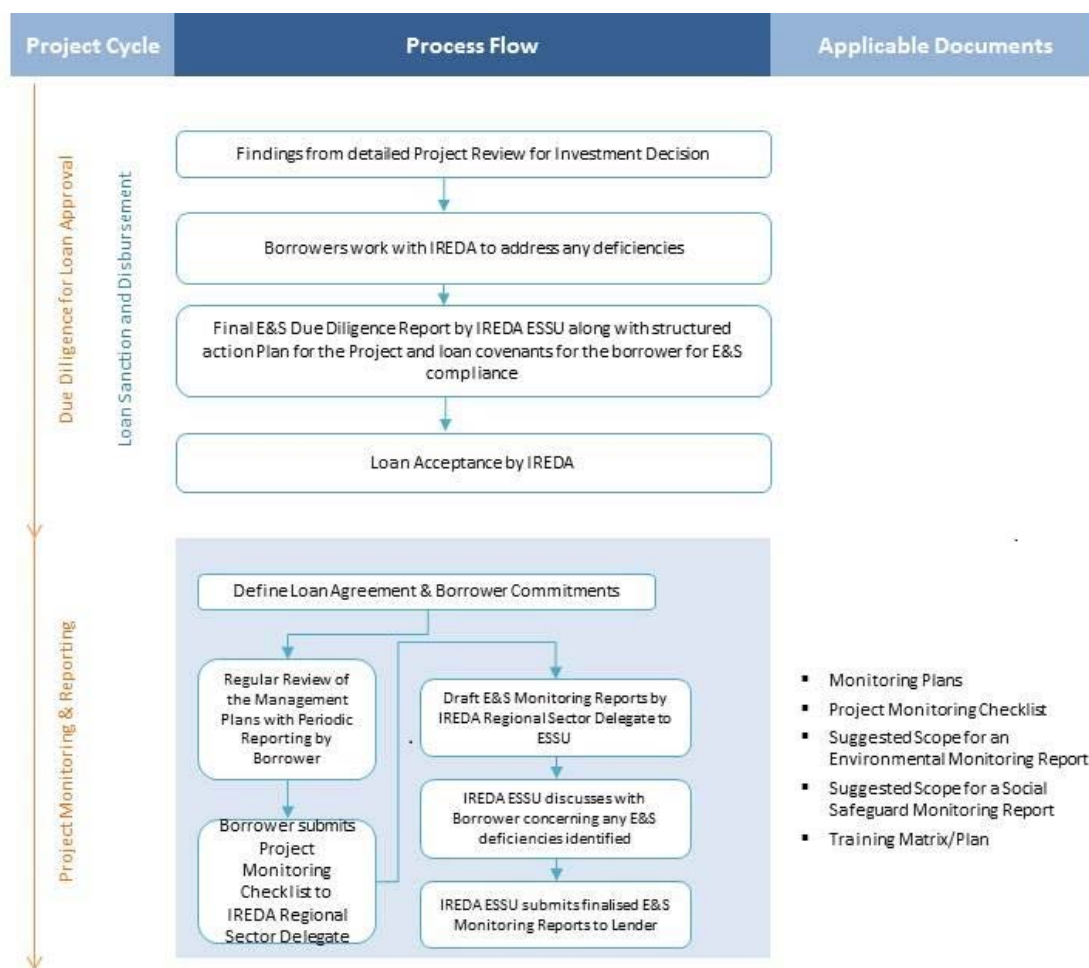


Figure 4: IREDA's ESMS process

## 4.1 Project Loan Application

The client (borrower) intending to obtain a loan from IREDA for a proposed RE project will need to submit an online Project Loan Application in a format defined by IREDA (as provided on the IREDA website for the respective RE technology).

The loan application format includes sector specific Questionnaire with respect to E&S aspects of the project (Annexure B). This questionnaire needs to be descriptively filled by the prospective borrower to help IREDA conduct the E&S due diligence of the project. The ESSU may seek further clarification/documentary evidences to the responses provided as and when required. The Project Loan Application shall be submitted along with a Detailed Project Report (DPR), which should include a chapter on environmental and social appraisal.

The borrower should also provide documents for demonstrating compliance with Indian national legislations applicable to the project and relevant to the renewable energy sectors. The key National Legislations have been listed in a Legal Register that also comprises of a brief summary of the legal requirements relevant to each E&S aspect (Annex F). Legal Register shall be regularly updated by IREDA to ensure its relevance. All borrowers are expected to comply with requirements set forth by relevant E&S laws and regulations.

## 4.2 Project appraisal (Due Diligence)

### Questionnaires

The Project Loan Application is reviewed by the appraisal officer to determine the nature of the project. Projects associated with activities listed in the Harmonised IREDA Exclusion List (Annex A2) will not be eligible for funding by IREDA. Decision to include or exclude a project will be made by IREDA after the Project Loan Application is reviewed.

### E&S Screening

The E&S Screening of the project will be conducted by ESSU on the basis of the information provided in the loan application and project site visit (if required). Information or field notes collected during the initial E&S due diligence will include (but not limited to) photographs, maps, GPS coordinates of the project site location, interview notes, comments to IREDA Exclusion List, identified information gaps on the screening checklists, etc.

If the information provided is insufficient, further clarification and additional information/documentation may be requested from the borrower. The borrower must provide all requested information to IREDA about the project, and should be able to demonstrate responsiveness with regard to the applicable E&S requirements. All the projects are required to meet the national regulations/ requirements with respect to E&S issues, including those mentioned in the legal register (Annex F).

The information collected will be used to fill a set of sector-specific Environmental, Social and Indigenous People Screening Checklists (Annex B2). The screening checklists cover all the safeguard aspects mentioned in Section 1.3 of the ESMS Manual.

## 4.3 E&S Categorisation

The observations during the project screening will be summarised by the ESSU in the form of project categorization form (Annex C). The categorisation will be reviewed by the respective sector head and endorsed by the head of ESSU. The project E&S categorisation and findings of the E&S Screening process will be provided to the respective Sector head(s) for consideration in the project appraisal.

The projects are categorised into categories-A, B and C. The following table provides an understanding of the project categories.

Table 1: Project Categorization

Attribute	Category A	Category B	Category C
General Description	<ul style="list-style-type: none"> <li>Significant adverse E&amp;S impacts</li> <li>Impacts are sensitive, diverse or unprecedented.</li> <li>Area broader than the sites or facilities may get affected.</li> </ul>	<ul style="list-style-type: none"> <li>Potential impacts are less adverse &amp; more limited, fewer, site-specific, likely reversible</li> <li>Likely to be less adverse than those of the Category A projects.</li> <li>Mitigation measures can be designed more easily designed/ implemented</li> </ul>	<ul style="list-style-type: none"> <li>Minimal or no adverse environmental and social impacts.</li> <li>Minimal impacts may be temporary and only site specific.</li> <li>Easily and fully mitigated through routine measures</li> </ul>
Assessment Requirements	<ul style="list-style-type: none"> <li>Compliance to E&amp;S regulatory requirement</li> </ul>	<ul style="list-style-type: none"> <li>Compliance to E&amp;S regulatory requirement</li> </ul>	<ul style="list-style-type: none"> <li>Compliance to E&amp;S regulatory requirement</li> </ul>

Attribute	Category A	Category B	Category C
	<ul style="list-style-type: none"> <li>• Full ESIA and additional studies as necessary.</li> <li>• Project specific ESMP to be prepared and implemented.</li> </ul>	<ul style="list-style-type: none"> <li>• ESIA/studies may be required with limited scope and focus</li> <li>• ESMP to be prepared and implemented</li> </ul>	<ul style="list-style-type: none"> <li>• Generic ESMP may be adopted and implemented in the interest of the project</li> </ul>
Note:	The ESIA may be required even for commissioned assets if major impacts are envisaged.	Solar and wind power projects are exempted from ESIA requirement by the Government of India. However, it may be required for large scale projects with wide footprints.	Management plans may be adopted by the project taking reference from generic plans suggested to borrowers.

**Category A projects:** Projects that are likely to have potential significant adverse environmental and/or social impacts that are sensitive, diverse or unprecedented, will be categorised as a “**Category A**” project. These projects may affect an area broader than the sites or facilities subject to physical works.

In addition to ensure applicable E&S legislations are complied with, borrower of Category A projects will be required to provide relevant E&S studies. A detailed Environmental and Social Impact Assessment (ESIA) needs to be conducted for the project. The assessment should include:

- Baseline study of site conditions (environmental, physical, biological, hydrological, geological, demographic, social, etc.)
- Onsite, offsite, cumulative and indirect impact assessment of the project
- Analysis of E&S pros and cons of feasible project alternative
- Stakeholder consultation
- Institutional analysis with respect to required roles, responsibilities and capacity

Based on the findings/ outcomes of the ESIA, some generic and some sector specific management plans shall be prepared, which may include the following:

#### Generic Plans

- Environment Management Plan (EMP)
- Occupational Health and Safety Plan
- Community Safety and Engagement Plan
- Grievance Redressal Mechanism (GRM)
- Indigenous Peoples Plan<sup>1</sup> (IPP, if applicable)
- Resettlement Action Plan<sup>2</sup> (RAP, if applicable)

#### Solar Energy Sector

- Water Procurement Plan (For cleaning of panels)

<sup>1</sup> Applicable if the project involves involuntary resettlement.

<sup>2</sup> Applicable if the project impact indigenous/scheduled tribal population.

- Panel Disposal Plan

### **Hydro Energy Sector**

- Water Management Plan
- Traffic Management during construction

### **Wind Energy Sector**

- Bird & Bat Management Plan
- Shadow Flicker Management Plan
- Noise Management Plan

### **Biomass/ Cogeneration Sector**

- Emission Management
- Fly Ash Management

The plans as applicable to the type and scale of the project, need to be developed and implemented by the borrower. The borrower should consider seeking support from experienced environmental or social specialist for undertaking such work.

The impact assessment reports, and management plans as mentioned above including reports on public consultation shall be submitted by the borrower to IREDA for review. External ESDD may be undertaken by IREDA to identify the gaps and efforts will be made to ensure the required standards are met by project's E&S studies, even if it may mean that the existing studies may need to be updated. The management plans reviewed and accepted by IREDA need to be implemented by the borrower during the project construction, operation and decommissioning.

**Category B projects:** Projects with relatively less significant and limited environmental and/or social impacts compared to Category A projects are categorised as a **Category B** project. The mitigation measures for these projects can be more easily designed and implemented.

For these category B projects as well, all the national E&S regulations need to be met. In particular, requirements set forth by the Environmental Impact Assessment Notification 2006 and Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (2013) shall be followed, if applicable. For sectors that are not covered by the EIA Notification 2006 (e.g. Wind and Solar, etc.), an E&S Due Diligence will be undertaken preferably through an external agency depending on the scale of the project. Some sector and technology specific studies may also be required such as noise impact, shadow flicker, bird/bat study, etc.

Depending on the finding of the studies and review by IREDA, E&S management plans need to be developed by the borrower. The generic management plans mentioned in the section above are applicable to almost all sectors and scales. However, the coverage and the extent of detailing may vary. Additionally, other sector specific plans may be required if the impact during the assessment/ study is substantial.

The management plans need to be implemented by the borrower during the project construction, operations and decommissioning.

**Category C projects:** The projects with minimal or no impacts are categorised into **“Category C”**.



These projects also need to comply with the local laws and regulations related to E&S at minimum. IREDA on the basis of the observations during the internal project screening process may suggest some specific mitigation measures if required for identified E&S risks/impacts. The borrower may follow generic ESMP for the sector in the interest of the project.

**Note:** All sub-projects, regardless of RE technology or categorization, will normally involve some E&S impacts, Health & Safety aspects and interactions with local people, whether temporarily during construction or long-term during operations. Therefore, for each project (including Category C) the borrower will need to have in place the following plans (already mentioned in the section above):

- Environment Management Plan (EMP)
- Occupational Health and Safety Plan
- Community Safety and Engagement Plan
- Grievance Redressal Mechanism (GRM)

The borrower may refer to the suggestive plans provided by IREDA as guidance, for the development of required management plans. The grievance mechanism applies to project workers as well.

Often there are projects for which the extent of E&S risks may not yet be fully clear at this stage. In such cases, the E&S Specialist of IREDA should tentatively pick the more stringent E&S Categorisation (e.g. if unsure about A or B, choose A). If subsequently in the process it is found that the related E&S risks are indeed less significant, then the categorisation can be revised if appropriate (and the respective justification/rationale documented and filed accordingly).

#### ***4.4 Loan Sanction & Disbursement***

Provided that the necessary E&S requirements are complied with, loan will be granted to projects following approval from the IREDA Management. To ensure the IREDA ESMS requirements are followed, borrower's E&S commitments (action plan) will be specified and defined in the loan agreement document (Annex C1 & C2). Borrower Commitment Checklist (Annex C3) is available as a tool for IREDA ESSU to track documents, management and monitoring plans obliged by the borrowers receiving funds from IREDA for Category A, B and C projects.

On-going monitoring will be conducted by IREDA's E&S Specialists to ensure compliance. For Category A projects and B projects (especially higher risk Category B projects), project site visit will be conducted to monitor the implementation of EMP, RP and IPP (as applicable).

#### ***4.5 Project Monitoring***

Borrowers are required to monitor and report project's E&S performance on a regular basis with respect to the loan covenants and commitment checklist. Additional project-specific risks and impacts should also be considered. Selected areas of concern are monitored and evaluated against established key environmental and social development measurements and indicators.

From the first disbursement and during the operational phase of the project, the IREDA officials would monitor and evaluate the E&S progress and performance of the borrower in line with the funding agreement. Monitoring, among other issues, aims to ensure that the borrower complies with the E&S covenants stipulated in the loan agreement and ensure

ongoing compliance with the national and local legal requirements, and where applicable international best practises.

Monitoring also ensures that the action plan, mitigation and management measures identified in the E&S appraisal are implemented, and where the recommended management measures are ineffective or inadequate, corrective alternatives are identified and agreed.

Such information is to be submitted to IREDA (at least) once a year. Category A or higher risk Category B projects may be required to provide monitoring reports more frequently (six month for first two years and then annually). The sector specific formats for the monitoring reports is provided as Annex F of this document.

IREDA may conduct visit to the project sites, to ensure the compliance to the E&S requirements, implementation of the E&S management plans and ascertain the credibility of the information provided in the monitoring reports.

Borrowers are obliged to report project's E&S performance on a regular basis with respect to the loan conditions and commitment checklist. Additional project-specific risks and impacts should also be considered. Selected areas of concern are monitored and evaluated against established key environmental and social development measurements and indicators.

### **Monitoring**

From the first disbursement and during the operational phase of the project, the IREDA officials would monitor and evaluate the E&S progress and performance of the borrower in line with the funding agreement. Monitoring, among other issues, aims to ensure that the borrower complies with the E&S conditions stipulated in the loan agreement and ensure ongoing compliance with the national and local legal requirements, and where applicable international best practises. This can be done in consultation with E&S specialists.

Monitoring also ensures that the action plan, mitigation and management measures identified in the E&S appraisal are implemented, and where the recommended management measures are ineffective or inadequate, corrective alternatives are identified and agreed. In addition, the IREDA ESSU will provide assistance in building institutional capacity of the borrower with regard to E&S performance of the project.

For IREDA funded projects, the borrowers are required to monitor compliance with loan conditions, commitments and specific monitoring requirement identified during screening and impact assessment. Such information is to be submitted to IREDA (at least) once a year. Category A or higher risk Category B projects should report more frequently (six monthly for first two years and then annually).

Environmental and social aspects relevant to the specific renewable energy sector may be captured by following defined monitoring plans. IREDA defined monitoring plans include the following:

- Bird Monitoring Plan;
- Bat Monitoring Plan;
- Water Monitoring Plan;
- Shadow Flicker Monitoring Plan;
- Noise Monitoring Plan.



## **4.6 Other Borrower Commitments**

### **Relevant Laws & Regulations**

Key Indian national legislations applicable to E&S aspects and relevant to renewable energy sectors have been identified. They are listed in a Legal Register that also comprises of a brief summary of the legal requirements relevant to each E&S aspect (Annex F). All borrowers (for project Category A, B & C) are expected to comply with requirements set forth by relevant E&S laws and regulations. IREDA's approach towards Gender Equality is defined in Annex-I, the borrowers are expected to include gender consideration during project planning and implementation on similar lines.

To ensure the relevance of the E&S Legal Register, it should be updated regularly by the IREDA ESSU.

### **Stakeholder Engagement & Communication**

Stakeholders are persons or groups who are directly or indirectly affected by a project, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively. They can include affected communities located near a project, particularly those subject to actual or potential project-related risk and/or adverse impacts on their physical environment, health or livelihoods. How those stakeholders are engaged can determine the success of a project's implementation, as it forms the basis for managing a project's environmental and social impacts. A detailed consultation process is required and all engagement with stakeholders must be conducted in line with IREDA's Environmental & Social Management Policy.

A Stakeholder Engagement Plan (SEP) is required to be developed and implemented for each project on an appropriate scale. A SEP should be scaled to the project risks and be tailored to the characteristics of the affected persons or communities. Template of a SEP can be found in Annex D3.

## **5. IREDA REPORTING TO LENDERS**

This reporting somewhat distinct from the Project Review Process described above in Section 5 is the periodic reporting of IREDA to its stakeholders. IREDA's stakeholders with respect to E&S reporting will include (but not limited to) IREDA's lenders, international development finance institutions, investors, etc. Most lenders have requirements for systematic annual (or semi-annual) reporting on the E&S performance of those projects subject to funding by its funds.

The information provided by the borrowers in the form of project monitoring reports form the basis of the reporting. IREDA will compile, consolidate and summarise the information provided by its borrowers and customise it for the concerned stakeholders. The final reporting may be in the form of:

- **Periodic Reporting to the specific lenders**
- **Consolidated reporting as the part of IREDA's Annual Report**
- **Sustainability reporting at agreed intervals**

## 6. STAKEHOLDER ENGAGEMENT: GRIEVANCE REDRESSAL MECHANISM

IREDA lends funds for renewable energy projects and its borrowers are responsible for implementation of the projects on ground. Therefore, all the components of this ecosystem become direct or indirect stakeholders of IREDA. The figure below shows the possible stakeholders:

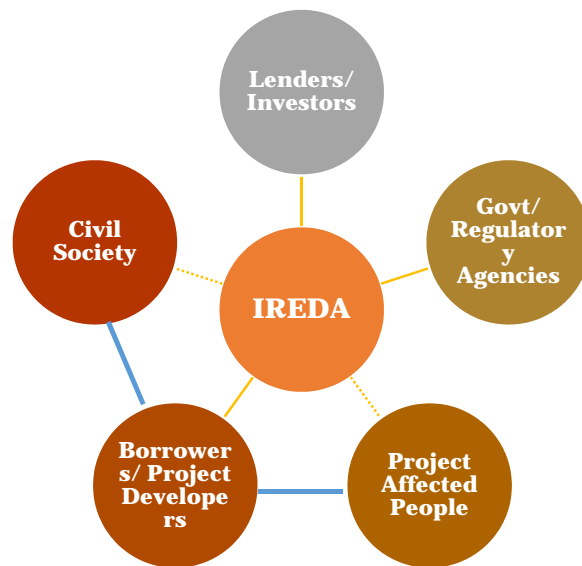


Figure 5: IREDA Stakeholder Mapping

The solid lines in the figure above indicate direct stakeholders whereas dashed lines indicate indirect stakeholder. IREDA's approach for engaging different stakeholders on E&S issues will vary with the stakeholder category, as discussed below.

- 1. Lenders/ Investors:** IREDA's lenders include international development finance institutions such as World Bank, ADB, KfW, EIB, AFD, JICA, etc. There is a standard mechanism for engagement with different lenders. It includes regular meetings and progress reporting. IREDA also participates in the capacity building programs organised by the lenders. As far as the investors are concerned, there will be periodic performance reporting mechanism to communicate the E&S performance of the projects getting the investment.
- 2. Govt./Regulatory Agencies:** As a Non-Banking Finance Company under the administrative control of Ministry of New & Renewable Energy, IREDA needs to report to various government departments and agencies on different subjects. All these reporting requirements are regularly met as required.
- 3. Borrowers/ Project Developers:** IREDA's borrowers or the project developers getting finances for project development, are one of its key stakeholders. Therefore, regular interactions are maintained with them as part of its core operations. Additionally, efforts are made to build capacity of borrowers on E&S issues and requirements. This is to be done through one to one interaction as well as group interactions. The group interactions may be in the form of capacity

building/information dissemination programmes. This will help them in ensuring the compliance with the E&S requirements of IREDA.

- 4. Project Affected People:** The people affected by the project activity includes persons or groups who are directly or indirectly affected by a project, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively. They can include affected communities located near a project, particularly those subject to actual or potential project-related risk and/or adverse impacts on their physical environment, health or livelihoods. How those stakeholders are engaged can determine the success of a project's implementation, as it forms the basis for managing a project's environmental and social impacts. A detailed consultation with them is expected from the project developer and all engagement with stakeholders must be conducted in line with IREDA's Environmental & Social Management Policy.

They are indirect stakeholder for IREDA and are directly connected to the borrower. IREDA will ensure that the client or the borrower will establish a mechanism to receive and facilitate resolution of stakeholders' concerns, complaints, and grievances about the project's safeguards performance (both environmental and social). In spite of that if there are any unresolved issues, they are free to approach IREDA as per the Grievance Redressal Mechanism (Annex G) described in the following section. Additionally, IREDA officials try to interact with the project affected people during the project site visits to get a fair understanding of the project performance.

- 5. Civil Society:** This group includes the community organisations, group, NGOs, etc. that work for public interest. Each project site that is funded by IREDA is required to have a display board clearly mentioning that the project is funded by IREDA. Therefore, the civil society is free to get in touch with IREDA through preferred channel. Also, any grievances that remain unresolved by the project developer, may registered with IREDA through the grievance redressal mechanism (Annex G).

### **Grievance Redressal Mechanism (GRM)**

IREDA stakeholder engagement approach is to work pro-actively towards identifying and addressing E&S issues before they become grievances. However, when grievances are reported they need to be addressed in a consistent and verifiable manner as part of the implementation of the ESMS.

The procedures stipulated by IREDA's Grievance Management Procedure (Annex G) will be followed. The stakeholders' will be informed about the mechanism through this manual.

## ***7. FEEDBACK AND REVIEW***

Any system is never perfect, there is always a scope for improvement. IREDA will continuously strive to improve this ESMS through updations as and when felt necessary. Various stakeholders are free to provide their comments, feedback and experiences with the current ESMS. Any of the following channels may be used for that purpose:

- Meetings
- Website Feedback Tab
- Email address
- Telephone
- Presentations at forums, training workshops and conventions
- Direct mail
- Surveys

Also, during the course of implementation of the ESMS, IREDA may experience the need for revising/ improving the procedures and system. Therefore, based on the feedback, comments, suggestions and experiences, IREDA will update the ESMS to make it more effective and at the sometime easy to comply with. The latest version of ESMS shall be uploaded on the website.

## **8. COMPETENCY & TRAINING**

In relation to the defined ESMS management and organisation, designated responsible persons of the roles must have the required competency to oversee and to implement the management programs and plans specified by the management system.

Persons responsible for implementing ESMS should have the necessary background, experience and understanding of E&S issues. The IREDA staff who have a role to play in the implementation should have clear understanding of the ESMS processes and expectations from them. This shall be ensured through continuous training programs for the internal staff.

Training needs can be identified by assessing the required set of skills against the existing competencies. Training needs can also be triggered by past events, such as accidents, emergency situations, internal or external grievances, as well as audit deficiencies and/or requests from employees.

The trainings will be arranged and coordinated by the Human Resources (HR) in consultation with the ESSU of IREDA. The extent and frequency of periodic training should be commensurate with the roles and responsibilities of the staff in relation to the E&S review of projects and the implementation of this ESMS. Typically, shorter, high-level briefing sessions may be appropriate for senior managers, while more in-depth, hands-on training may be warranted for those staff conducting field assessments and detailed document review of the projects.



# **ANNEXURES OF IREDA'S ESMS**

**Indian Renewable Energy Development Agency**

## **Annex A1: IREDA'S ESMS Policy**

*IREDA is committed for the development and implementation of projects that are environmentally and socially sustainable. As an environmentally informed and socially responsible financial institution, IREDA endeavours to avoid/minimize/mitigate adverse environmental and social impacts, if any.*

The Indian Renewable Energy Development Agency (IREDA) is a Non-Banking Financial Institution (NBFC), operating under the administrative control of Ministry of New and Renewable Energy (MNRE). IREDA is committed to Renewable Energy development in the country.

For the above mentioned purpose, IREDA has adopted Environment and Social safeguards policy. The policy is devoted to:

- 1.** Ensure that the borrowers comply with all relevant E&S policies, laws, and regulations of the GoI and states of India. Additionally, they also remain responsive to E&S requirements of the lenders wherever a lender's line of credit is involved. This can be achieved by following the processes stipulated in this ESMS;
- 2.** Achieve a balance between developmental imperatives, environmental sustainability and social well-being in its operations and give due importance to E&S management considerations in appraising and financing RE projects to avoid, or where avoidance is not possible, minimize, and mitigate adverse environmental and social impacts and risks, if any;
- 3.** Integrate assessments to identify and evaluate the E&S impacts, risks, and opportunities of the projects into its business operations and risk management analysis;
- 4.** Take informed financing / funding decisions based on robust categorization of projects according to E&S risk levels, ascertained through preliminary screening of E&S aspects and, if and where required, commensurate with the scale of the project via E&S impact assessment studies;
- 5.** Work with the clients to get them to consider project-related E&S management risks in their projects and, if such risks are identified, ensure that the clients adequately address those risks during the life cycle of the project through adequate E&S management systems and plans;
- 6.** Ensure E&S and relevant legal requirements are complied with by its projects. To the extent reasonably possible, IREDA will also ensure the requirements of the applicable international standards are met by the Borrowers.
- 7.** Ensure that effective mechanisms are in place and in use for compliance with IREDA's E&S principles during project appraisal and implementation, and to undertake corrective actions, if required. This will include visits by IREDA representatives to proposed project sites as appropriate with the scale of the project and the project risks;
- 8.** Maintaining and improving the ESMS to deliver the commitments under this policy and to monitor compliance with this policy across its project portfolio and periodically report back to its management and to its Lenders;
- 9.** Ensure competent and functional Environmental & Social Safeguard Unit (ESSU) within IREDA to undertake the responsibilities of implementation of the ESMS across



all sectors at project level, as well as emphasize on management review and reporting procedures;

- 10.** Continuously develop and improve institutional capacity and designate E&S professionals with adequate competence and experience to understand, assess and manage E&S impacts and risks associated with the projects which IREDA finances and provide necessary guidance/inputs to the clients to practice effective E&S management systems at project level; and
- 11.** Constant efforts towards gender equality and ensuring that its activities do not inappropriately impact the gender parity.
- 12.** Communicate IREDA's E&S principles to external and internal stakeholders.

This policy shall be applicable to all the projects supported by IREDA

## **Annex A2: Harmonized IREDA Exclusion List**

IREDA will not fund any activity, production, use, distribution, business or trade involving:

- 1.** Forced labour<sup>3</sup> or child labour<sup>4</sup>.
- 2.** Activities or materials deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international phase-outs or bans, such as:
  - i. Ozone depleting substances, PCBs (Polychlorinated Biphenyls) and other specific, hazardous pharmaceuticals, pesticides/herbicides or chemicals;
  - ii. Wildlife or products regulated under the Convention on International Trade in Endangered Species or Wild Fauna and Flora (CITES); or
  - iii. Unsustainable fishing methods (e.g. blast fishing and drift net fishing in the marine environment using nets in excess of 2.5 km in length).
- 3.** Cross-border trade in waste and waste products, unless compliant to the Basel Convention and the underlying regulations.
- 4.** Destruction<sup>5</sup> of High Conservation Value areas<sup>6</sup>.
- 5.** Production or trade of radioactive materials<sup>7</sup> and unbounded asbestos fibres<sup>8</sup>.
- 6.** Pornography and/or prostitution.
- 7.** Racist and/or anti-democratic media.
- 8.** Production or trade in weapons and munitions<sup>9</sup>.
- 9.** Commercial logging operations for use in primary tropical moist forest.
- 10.** Production or trade in wood or other forestry products other than from sustainably managed forest.
- 11.** In the event that any of these following products form a substantial part of a project's primary financed business activities<sup>10</sup>:
  - i. Alcohol beverages (except beer and wine);
  - ii. Tobacco;
  - iii. Weapons and munitions; or
  - iv. Gambling, casinos and equivalent enterprises.

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<sup>3</sup> Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty as defined by ILO conventions.

<sup>4</sup> Persons may only be employed if they are at least 14 years old, as defined in the ILO Fundamental Human Rights Conventions (Minimum Age Convention C138, Art.2), unless local legislation specifies compulsory school attendances or the minimum age for working. In such cases the higher age shall apply.

<sup>5</sup> Destruction means the (1) elimination or severe diminution of the integrity of an area caused by a major, long-term change in land or water use or (2) modification of a habitat in such a way that the area's ability to maintain its role is lost.

<sup>6</sup> High Conservation Value (HCV) areas are defined as natural habitats where these values are considered to be of outstanding significance or critical importance (see <http://www.hcvnetwork.org>).

<sup>7</sup> This does not apply to the purchase of medical equipment, quality control (measurement) equipment or any other equipment where the radioactive source is understood to be trivial and/or adequately shielded.

<sup>8</sup> This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.

<sup>9</sup> This does not apply to project sponsors who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a project sponsor's primary operations.

<sup>10</sup> For companies, "substantial" means more than 10% of their consolidated balance sheets or earnings. For financial institutions and investment funds, "substantial" means more than 10% of their underlying portfolio.

## Annex A3: Definition of Environmental & Social Categorization

**Environment:** A project's environment category is determined by the category of its most environmentally sensitive component, including direct, indirect, induced, and cumulative impacts. Each proposed project is scrutinized as to its type, location, scale, sensitivity and the magnitude of its potential environmental impacts<sup>11</sup>. The level of detail and comprehensiveness of the EIA are commensurate with the significance of the potential impacts and risks. The definition of the environmental categorization is defined as follows:

- **Category A.** A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment (EIA), including an environmental management plan (EMP), is required.
- **Category B.** A proposed project is classified as category B if its potential adverse environmental impacts are less adverse than those of category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects.
- **Category C.** A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed.

**Social:** A project's involuntary resettlement category is determined by the category of its most sensitive component in terms of involuntary resettlement impacts. The involuntary resettlement impacts of an ADB-supported project are considered significant if 200 or more persons will experience major impacts, which are defined as (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income generating). The level of detail and comprehensiveness of the resettlement plan are commensurate with the significance of the potential impacts and risks. The definition of the involuntary resettlement categorization is defined as follows:

- **Category A.** A proposed project is classified as category A if it is likely to have significant involuntary resettlement impacts. A resettlement plan (RP), including assessment of social impacts, is required.
- **Category B.** A proposed project is classified as category B if it includes involuntary resettlement impacts that are not deemed significant.
- **Category C.** A proposed project is classified as category C if it has no involuntary resettlement impacts. No further action is required.

**Indigenous People:** A project's indigenous people's category is determined by the category of its most sensitive component in terms of impacts on indigenous peoples. The significance of impacts of an ADB-supported project on indigenous peoples is determined by assessing (i) the magnitude of impact in terms of (a) customary rights of use and access to land and natural resources; (b) socioeconomic status; (c) cultural and communal integrity; (d) health, education, livelihood, and social security status; and (e) the recognition of indigenous knowledge; and (ii) the level of vulnerability of the affected indigenous peoples community.

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<sup>11</sup> Categorization is based on potential risks of a project, without taking into consideration of the mitigations employed.

The level of detail and comprehensiveness of the indigenous people plan (IPP) are commensurate with the significance of potential impacts on indigenous peoples. The definition of the indigenous people categorization is defined as follows:

- **Category A.** A proposed project is classified as category A if it is likely to have significant impacts on Indigenous Peoples. An Indigenous Peoples plan (IPP), including assessment of social impacts, is required.
- **Category B.** A proposed project is classified as category B if it is likely to have limited impacts on Indigenous Peoples.
- **Category C.** A proposed project is classified as category C if it is not expected to have impacts on Indigenous Peoples. No further action is required.

## **ANNEX B - INFORMATION REQUIRED FOR E&S SCREENING**

### **Annex B1.1. E&S Questionnaire- Solar Rooftop Project**

#### **A. Borrower Information**

**Application Registration Number (ARN):**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person from Borrower for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

#### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
1.	Total Power Capacity of Project (MW):	
2.	Grid Connection:	<input type="checkbox"/> Grid Connected <input type="checkbox"/> Off grid
3.	Technology:	<input type="checkbox"/> Thin Film <input type="checkbox"/> Monocrystalline <input type="checkbox"/> Polycrystalline <input type="checkbox"/> Any Other (Please Specify)
4.	Total Rooftop Space:	
5.	Geographical Coordinates(Lat, Long):	Latitude-      ° (N/S) Longitude-      ° (E/W)
6.	Project Status:	<input type="checkbox"/> Implementation yet to begin (planning phase)

Sr. No.	Parameter	Description
		<input type="checkbox"/> Under Construction <input type="checkbox"/> Commissioned (provide date of commissioning) <input type="checkbox"/> Other (specify)
7.	Rooftop procurement Space	<input type="checkbox"/> Government Land: Allotment. Mention the lease period _____ years <input type="checkbox"/> Private: Self Owned <input type="checkbox"/> Private: Willing seller. <input type="checkbox"/> Private: Leased. Mention the lease tenor- _____ years
8.	Previous categorization (before the installation) space plant	<input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Others. Please specify _____
9.	Associated Infrastructure in and outside project area (like transmission line, labor camp, etc.)	

### C. Environment and Social Information

Sr. No.	QUESTION	RESPONSE
1.	Has there been any Environment and Social Impact Assessment (ESIA) of the project?	<input type="checkbox"/> Yes, provide report <input type="checkbox"/> No, are there plans to carry out the same? _____
2.	Are there any community facilities in/around the project building? If yes, please name of the facility and specify the location?	<input type="checkbox"/> Any place of worship <input type="checkbox"/> Community center <input type="checkbox"/> School <input type="checkbox"/> Hospital <input type="checkbox"/> Commercial Spaces <input type="checkbox"/> Others. Please specify

Sr. No.	QUESTION	RESPONSE
3.	Is the access to any one of the above mentioned facilities affected, due to the project?	<input type="checkbox"/> Yes. Please mention the facility and how? _____ <input type="checkbox"/> No
4.	Is there any indigenous/tribal population in/ around the project site?	<input type="checkbox"/> Yes. Provide details. <input type="checkbox"/> No
5.	What are the measures being adopted to ensure the occupational health and safety during the project construction and operations?	<input type="checkbox"/> Personnel Protective Equipment. Mention _____ <input type="checkbox"/> Health and Safety Trainings. Provide details _____ <input type="checkbox"/> Certifications such as OHSAS, etc. Provide details _____ <input type="checkbox"/> Company's Environment, Health and Safety Manual. Provide details or copy or EHS Policy _____ <input type="checkbox"/> Others. Please specify _____
6.	What is the approximate number and source of labor hired by the owner or contractor? (local or migrant)	<input type="checkbox"/> Local _____ <input type="checkbox"/> Migrant. Details of the arrangement for their lodging and other facilities? _____ <input type="checkbox"/> Both _____
7.	What is the arrangement for management of construction waste such as packaging material, etc and hazardous waste such as broken panels, etc? Provide a waste management plan.	
8.	What is the method for cleaning solar panels?	<input type="checkbox"/> Water hose <input type="checkbox"/> Water Sprinkler <input type="checkbox"/> Robotic Cleaning <input type="checkbox"/> Dry Mopping <input type="checkbox"/> Others. Mention the details _____
9.	What is the frequency of cleaning and estimated water consumption (kilo litre /year) for this purpose?	Frequency: _____ cleaning cycles in a month Water Usage: _____ kl per cleaning cycle
10.	What is the source of	<input type="checkbox"/> Ground Water. Please provide copy/status of permission for

Sr. No.	QUESTION	RESPONSE
	water to be used for cleaning? (procurement method as well as ultimate source from where water is coming)	ground water extraction. _____ <input type="checkbox"/> Private Water Tankers. Provide source of water for tankers _____  <input type="checkbox"/> Municipal Water Supply. Provide details _____  <input type="checkbox"/> Others. Provide details _____
11.	Is there a provision/ plan for rain water harvesting?	<input type="checkbox"/> Yes. What is the status thereof? _____  <input type="checkbox"/> No

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name: \_\_\_\_\_ Email: \_\_\_\_\_ Contact No.: \_\_\_\_\_

Date: \_\_\_\_\_

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**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  - Environment Management Plan (Land, Water, Waste, etc)
  - Occupational Health & Safety Plan
  - Social Management and Community Health, Safety & Security Plan
  - Grievance Redressal Plan
- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400



## **Annex B1.2. E&S Questionnaire- Ground Mounted Solar Power**

### **A. Borrower Information**

**Application Registration Number (ARN):**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person from Borrower for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
1.	Total Power Capacity of Project (MW):	
2.	Grid connection	<input type="checkbox"/> Grid Connected <input type="checkbox"/> Off grid
3.	Technology:	<input type="checkbox"/> Thin Film <input type="checkbox"/> Monocrystalline <input type="checkbox"/> Polycrystalline <input type="checkbox"/> Any Other (Please Specify _____)
4.	Total Area covered (Acres/ Hectares):	
5.	Previous Land Use of Project Area:	<input type="checkbox"/> Farming/plantation <input type="checkbox"/> Human Habitation <input type="checkbox"/> Commercial/Business operations <input type="checkbox"/> Industrial <input type="checkbox"/> Tree cover <input type="checkbox"/> Unused <input type="checkbox"/> Other

Sr. No.	Parameter	Description
6.	Geographical Coordinates(Lat, Long)	Latitude- °(N/S) Longitude- °(E/W)
7.	Project Status:	<input type="checkbox"/> Implementation yet to begin (planning phase) <input type="checkbox"/> Under Construction <input type="checkbox"/> Commissioned (provide date of commissioning) <input type="checkbox"/> Other (specify _____)
8.	Associated Infrastructure in and outside project area (like transmission line, labor camp, etc.)	

### C. Environment and Social Information

Sr. No.	QUESTION	RESPONSE
1.	Has there been any Environment and Social Impact Assessment (ESIA) /Environment and Social Management Plan (ESMP_(of the project?	<input type="checkbox"/> Yes, provide report <input type="checkbox"/> No, are there plans to carry out the same? _____
2.	Land procurement	<input type="checkbox"/> Government Land: Allotment <input type="checkbox"/> Private: Self Owned <input type="checkbox"/> Private: Willing seller <input type="checkbox"/> Private: Leased. Mention the lease tenure _____years

Sr. No.	QUESTION	RESPONSE
3.	Previous land categorization (before the plant installation)	<input type="checkbox"/> Agricultural. If Yes, has it been converted to Non-agricultural land? Provide the documentation for the same. <input type="checkbox"/> Non Agriculture <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Others. Please specify _____
4.	Land Conversion: Has Agricultural land been converted to Non-Agricultural?	<input type="checkbox"/> Yes. Provide documentation <input type="checkbox"/> No. State the reason. _____
5.	Are there any community facilities in/around (within 500 m radius) the project site?  If yes, please name of the facility and specify the distance from project boundary?	<input type="checkbox"/> Any place of worship _____ m <input type="checkbox"/> Community center _____ m <input type="checkbox"/> Pond _____ m <input type="checkbox"/> School _____ m <input type="checkbox"/> Hospital _____ m <input type="checkbox"/> Others. Please specify _____
6.	Is the access to any one of the above mentioned facilities affected, due to the project?	<input type="checkbox"/> Yes. Please mention the facility and how? _____ <input type="checkbox"/> No
7.	Is there any of these within 10 km radius of the project boundary? If yes, please provide	<input type="checkbox"/> Physical Cultural/Religious Heritage Site <input type="checkbox"/> Wildlife Sanctuary

Sr. No.	QUESTION	RESPONSE
	details and the distance from site.	<input type="checkbox"/> Primary forest  <input type="checkbox"/> National Park  <input type="checkbox"/> Wetland/Water Body  <input type="checkbox"/> Mangrove/ Estuary (in case of coastal projects)  <input type="checkbox"/> Special Biodiversity Rich Area
8.	Does the project require involuntary displacement of people?	<input type="checkbox"/> Yes. How many individuals/ families were displaced?  <input type="checkbox"/> No
9.	What is the distance of the nearest human settlement from the project boundary?(km)	
10	Are there any female workers in the project?	<input type="checkbox"/> Yes. Specify the number and kind of activities they are involved in.  <input type="checkbox"/> No
11.	Is there any indigenous/tribal population around the project site?	<input type="checkbox"/> Yes. Provide details.  <input type="checkbox"/> No
12	What are the measures being adopted to ensure the occupational health and safety during the project construction and operations?	<input type="checkbox"/> Personnel Protective Equipment. Mention _____  <input type="checkbox"/> Health and Safety Trainings. Provide details _____  <input type="checkbox"/> Certifications such as OHSAS, etc. Provide details

Sr. No.	QUESTION	RESPONSE
		<p>_____</p> <p><input type="checkbox"/> Company's Environment Health and Safety Policy/Manual. Provide details copy _____ or EHS Policy</p> <p><input type="checkbox"/> Others. Please specify _____</p>
13	What is the approximate number and source of labor hired by the owner or contractor? (local or migrant)	<p><input type="checkbox"/> Local_____</p> <p><input type="checkbox"/> Migrant. Details of the arrangement for their lodging and other facilities? _____</p> <p><input type="checkbox"/> Both_____</p>
14	Basic facilities for the labor:	<p><input type="checkbox"/> Drinking Water. Mention details_____</p> <p><input type="checkbox"/> Sanitation. Mention details_____</p> <p><input type="checkbox"/> Others. Mention details_____</p>
15	What is the arrangement for management of construction waste and packaging material?	
16	What is the arrangement for management of hazardous waste generated during operations such as broken panels, transformer oil, etc?  Provide a waste management plan for construction phase.	
17	What is the method for cleaning solar panels?	<p><input type="checkbox"/> Water hose</p> <p><input type="checkbox"/> Water Sprinkler</p> <p><input type="checkbox"/> Robotic Cleaning</p>

Sr. No.	QUESTION	RESPONSE
		<input type="checkbox"/> Dry Mopping <input type="checkbox"/> Others. Mention the details_____
18	What is the frequency of cleaning and estimated water consumption (kilo litre /year) for this purpose?	Frequency: _____ cleaning cycles in a month Water Usage: _____ kl per cleaning cycle
19	What is the source of water to be used for cleaning? (procurement method as well as ultimate source from where water is coming)	<input type="checkbox"/> Ground Water. Please provide copy/status of permission for ground water extraction. _____ <input type="checkbox"/> Private Water Tankers. Provide source of water for tankers _____ <input type="checkbox"/> Nearby Surface Water body. Provide details _____ <input type="checkbox"/> Others. Provide details _____
20	Is there a provision/ plan for rain water harvesting? If yes, what is the status thereof?	<input type="checkbox"/> Yes. What is the status thereof? _____ <input type="checkbox"/> No

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name: \_\_\_\_\_ Email: \_\_\_\_\_ Contact No.: \_\_\_\_\_

Date: \_\_\_\_\_  
 \_\_\_\_\_

**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  - 1.1. Environment Management Plan (Land, Water, Waste, etc)
  - 1.2. Occupational Health & Safety Plan
  - 1.3. Social Management and Community Health, Safety & Security Plan
  - 1.4. Grievance Redressal Plan
- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400

## **Annex B1.3: E&S Questionnaire-Wind Power**

### **A. Borrower Information**

**Application Registration Number (ARN):**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person from Borrower for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
1.	Total Power Capacity of Project (MW):	
2.	Type of connection	<input type="checkbox"/> Grid Connected <input type="checkbox"/> Off grid
3.	Rated Power of each Turbine (MW):	
4.	No. of turbines:	
5.	Total Area covered (Acres/ Hectares):	
6.	Previous (before installation of the project) land categorization, as per Government records	<input type="checkbox"/> Agricultural. If Yes, has it been converted to Non-agricultural land? Provide the documentation for the same. <input type="checkbox"/> Non-Agricultural  <input type="checkbox"/> Government  <input type="checkbox"/> Residential  <input type="checkbox"/> Commercial

Sr. No.	Parameter	Description
		<input type="checkbox"/> Industrial <input type="checkbox"/> Forest <input type="checkbox"/> Others. Please specify _____
7.	Previous Land Use of Project Area: (The purpose for which the project land was being used)	<input type="checkbox"/> Agriculture <input type="checkbox"/> Human Habitation <input type="checkbox"/> Commercial/Business operations <input type="checkbox"/> Industrial <input type="checkbox"/> Forest <input type="checkbox"/> Unused <input type="checkbox"/> Other
8.	Land Conversion: Has land conversion been executed?	<input type="checkbox"/> Yes. Provide documentation  <input type="checkbox"/> No. State the reason. _____
9.	Geographical Coordinates(Lat, Long)	Latitude-      ° (N/S) Longitude-      ° (E/W)
10.	Project Status:	<input type="checkbox"/> Implementation yet to begin <input type="checkbox"/> Under Construction <input type="checkbox"/> Commissioned (provide date of commissioning) <input type="checkbox"/> Other (specify)
11.	Associated Infrastructure in and outside project area (like transmission line, labor camp, etc.)	

### C. Environment and Social Information

Sr. No.	QUESTION	RESPONSE
1.	Has there been any Environment and Social Impact Assessment (ESIA/Environment and Social Management Plan (ESMP) of the project?	<input type="checkbox"/> Yes, provide report <input type="checkbox"/> No, are there plans to carry out the same? _____
2.	Land procurement	<input type="checkbox"/> Government Land: Allotment. Mention lease period _____ years



Sr. No.	QUESTION	RESPONSE
		<input type="checkbox"/> Private: Self Owned <input type="checkbox"/> Private: Willing seller. <input type="checkbox"/> Private: Leased. Mention the lease tenure- _____ years
3.	Are there any community facilities in/around (within 500 m radius) the project site? If yes, please name the facility and specify the distance from project boundary?	<input type="checkbox"/> Any place of worship _____m <input type="checkbox"/> Community center _____m <input type="checkbox"/> Pond _____m <input type="checkbox"/> School _____m <input type="checkbox"/> Hospital _____m <input type="checkbox"/> Others. Please specify _____m
4.	Is the access to any one of the above mentioned facilities affected, due to the project?	<input type="checkbox"/> Yes. Please mention the facility and how. _____ <input type="checkbox"/> No
5.	Is there any of these within 10 km radius of the project boundary? If yes, please provide details and the distance from site.	<input type="checkbox"/> Physical Cultural/Religious Heritage Site _____m <input type="checkbox"/> Primary forest <input type="checkbox"/> Wildlife Sanctuary _____m <input type="checkbox"/> National Park _____m <input type="checkbox"/> Wetland/Water Body _____m <input type="checkbox"/> Mangrove/ Estuary (in case of coastal projects) _____m <input type="checkbox"/> Special Biodiversity Rich Area _____m
12.	Does the project require involuntary displacement of people?	<input type="checkbox"/> Yes. How many individuals/ families were displaced? <input type="checkbox"/> No
13.	What is the distance of the nearest human settlement from the project boundary?(m)	
14.	Is there any indigenous/tribal population around the project site?	<input type="checkbox"/> Yes. Provide details. _____ <input type="checkbox"/> No

Sr. No.	QUESTION	RESPONSE
15.	What are the measures being adopted to ensure the occupational health and safety during the project construction and operations?	<input type="checkbox"/> Personnel Protective Equipment. Mention _____ <input type="checkbox"/> Health and Safety Trainings. Provide details _____ <input type="checkbox"/> Certifications such as OHSAS. Provide details _____ <input type="checkbox"/> Company's Environment, Health and Safety Policy/Manual. Provide details copy _____ or EHS Policy <input type="checkbox"/> Others. Please specify _____
16.	What is the number and source of labor hired by the owner or contractor? (local or migrant)	<input type="checkbox"/> Local _____ <input type="checkbox"/> Migrant. Details of the arrangement for their lodging and other facilities? _____ <input type="checkbox"/> Both _____
17.	Are there any female workers in the project?	<input type="checkbox"/> Yes. Specify the number and kind of activities they are involved in. _____ <input type="checkbox"/> No
18.	Basic facilities for the labor:	<input type="checkbox"/> Drinking Water. Mention the details _____ <input type="checkbox"/> Sanitation. Mention the details _____ <input type="checkbox"/> Others. Mention the details _____
19.	Does the project require any blasting? If yes, please provide details of the permission obtained.	<input type="checkbox"/> Yes. Provide details _____ <input type="checkbox"/> No
20.	Does the project area fall under any bird migratory route?	<input type="checkbox"/> Yes. Provide details and what are the measures being taken to prevent bird or bat strikes against rotor blades? _____ <input type="checkbox"/> No
21.	What is the distance of the nearest airport from the project site?	
22.	Is the aviation clearance required? If yes, provide documents.	<input type="checkbox"/> Yes. Provide details _____ <input type="checkbox"/> No
23.	What is the distance of the closest national highway or state highway from the turbines?	

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name: \_\_\_\_\_ Email: \_\_\_\_\_ Contact No.: \_\_\_\_\_

Date:

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**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  - a. Environment Management Plan (Land, Water, Waste, etc)
  - b. Occupational Health & Safety Plan
  - c. Social Management and Community Health, Safety & Security Plan
  - d. Grievance Redressal Plan
- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400

## Annex B1.4: E&S Questionnaire - Biomass Power

### A. Borrower Information

**Application Registration Number (ARN):**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person from Borrower for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### B. Project Design Data

Sr. No.	Parameter	Description
1.	Total Power Capacity of Project (MW):	
2.	Grid connection	<input type="checkbox"/> Grid Connected <input type="checkbox"/> Off grid
3.	What is the type and percentage of feedstock?	<input type="checkbox"/> Bagasse _____% <input type="checkbox"/> Coal _____% <input type="checkbox"/> Municipal Solid Waste _____% <input type="checkbox"/> Rice Husk _____% <input type="checkbox"/> Others. Please specify _____
4.	Rated Power of each Turbine (MW):	
5.	Total Area used by the project (Acres/ Hectares):	
6.	Previous (before installation of the project) land categorization, as per	<input type="checkbox"/> Agricultural. If Yes, has it been converted to Non-agricultural land? Provide the documentation for the same.

Sr. No.	Parameter	Description
	Government records	<input type="checkbox"/> Non-Agricultural <input type="checkbox"/> Government (Mention the lease period) <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Forest (Provide documents for the same) <input type="checkbox"/> Others. Please specify _____
7.	Previous Land Use of Project Area: <i>(The purpose for which the project land was being used)</i>	<input type="checkbox"/> Farming/plantation <input type="checkbox"/> Human Habitation <input type="checkbox"/> Commercial/Business operations <input type="checkbox"/> Industrial <input type="checkbox"/> Tree cover <input type="checkbox"/> Unused <input type="checkbox"/> Other
8.	Land Conversion: Has land conversion been executed?	<input type="checkbox"/> Yes. Provide documentation <input type="checkbox"/> No. State the reason. _____
9.	Geographical Coordinates	Latitude-      ° (N/S) Longitude-      ° (E/W)
10.	Project Status:	<input type="checkbox"/> Design <input type="checkbox"/> Construction <input type="checkbox"/> Expansion <input type="checkbox"/> Commissioning <input type="checkbox"/> Operation <input type="checkbox"/> Other (specify)
11.	Associated Facilities in and outside project area (like transmission line, labor camp, etc.)	

### C. Environment and Social Information

	QUESTION	RESPONSE
1.	Has there been any Environment and Social Impact Assessment (ESIA) of the project?	<input type="checkbox"/> Yes, provide report <input type="checkbox"/> No, are there plans to carry out the same?

	QUESTION	RESPONSE
		_____
2.	Land procurement	<input type="checkbox"/> Government Land: Allotment <input type="checkbox"/> Private: Self Owned <input type="checkbox"/> Private: Willing seller. <input type="checkbox"/> Private: Leased. Mention the lease tenor- _____ years
3.	Are there any community facilities in/around (within 500 m radius) the project site? If yes, please name the facility and specify the distance from project boundary?	<input type="checkbox"/> Any place of worship _____m <input type="checkbox"/> Community center _____m <input type="checkbox"/> Pond _____m <input type="checkbox"/> School _____m <input type="checkbox"/> Hospital _____m <input type="checkbox"/> Others. Please specify _____m
4.	Is the access to any one of the above mentioned facilities affected, due to the project?	<input type="checkbox"/> Yes. Please mention the facility and how. _____ <input type="checkbox"/> No
5.	Is there any of these within 10 km radius of the project boundary? If yes, please provide details and the distance from site.	<input type="checkbox"/> Physical Cultural/Religious Heritage Site _____m <input type="checkbox"/> Wildlife Sanctuary _____m <input type="checkbox"/> National Park _____m <input type="checkbox"/> Wetland/Water Body _____m <input type="checkbox"/> Mangrove/ Estuary (in case of coastal projects) _____m <input type="checkbox"/> Special Biodiversity Rich Area _____m
6.	Does the project require involuntary displacement of people?	<input type="checkbox"/> Yes. How many individuals/ families were displaced? <input type="checkbox"/> No
7.	What is the distance of the nearest human settlement from the project boundary?(Km)	
8.	Is there any indigenous/tribal population around the project site?	<input type="checkbox"/> Yes. Provide details. _____ <input type="checkbox"/> No

	QUESTION	RESPONSE
9.	What are the measures being adopted to ensure the occupational health and safety during the project construction and operations?	<input type="checkbox"/> Personnel Protective Equipment. Mention _____ <input type="checkbox"/> Health and Safety Trainings. Provide details _____ <input type="checkbox"/> Certifications such as OHSAS. Provide details _____ <input type="checkbox"/> Company's Health and Safety Manual. Provide details copy _____ <input type="checkbox"/> Others. Please specify _____
10.	What is the number and source of labor hired by the owner or contractor? (local or migrant)	<input type="checkbox"/> Local _____ <input type="checkbox"/> Migrant. Details of the arrangement for their lodging and other facilities? _____ <input type="checkbox"/> Both _____
11.	Are there any female workers in the project?	<input type="checkbox"/> Yes. Specify the number and kind of activities they are involved in. _____ <input type="checkbox"/> No
12.	Basic facilities for the labor:	<input type="checkbox"/> Water. Mention the details _____ <input type="checkbox"/> Sanitation. Mention the details _____ <input type="checkbox"/> Others. Mention the details _____
13.	What is the arrangement for management of fly ash during project operations? Provide details	
14.	What is the arrangement for water being discharged from cooling tower during project operations? Provide details	
15.	What is the arrangement for hazardous waste such as transformer oil etc. during project operations? Provide details	
16.	Does the project require any blasting?	<input type="checkbox"/> Yes. Provide details of the permission obtained. <input type="checkbox"/> No
17.	What are the measures taken to reduce polluting air emissions from the project?	<input type="checkbox"/> Fabric Filters <input type="checkbox"/> Scrubbers <input type="checkbox"/> Electrostatic Precipitators

	QUESTION	RESPONSE
		<input type="checkbox"/> Others. Please specify_____
18.	What is the stack height for flue gas discharge? What is the stack height requirement as per the pollution control board?	Plant stack height _____m Statutory requirement _____m

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name: Email: Contact No.:

Date:

-----

**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  - a. Environment Management Plan (Land, Water, Waste, etc)
  - b. Occupational Health & Safety Plan
  - c. Social Management and Community Health, Safety & Security Plan
  - d. Grievance Redressal Plan
- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400



## **Annex B1.5: E&S Questionnaire – Mini Hydro Power ( $\leq 2$ Mw)**

### **A. Borrower Information**

**Application Registration Number (ARN):**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person from Borrower for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
1.	Total Power Capacity of Project (kW):	
2.	Grid Connection:	<input type="checkbox"/> Grid Connected <input type="checkbox"/> Off grid
3.	No. of turbines:	
4.	Rated power of each turbine(kW/MW):	
5.	Total Area used by the project(Sq. mtrs/ Acres/ Hectares):	
6.	Geographical coordinates(Lat, Long):	Latitude-      °(N/S) Longitude-      °(E/W)
7.	Previous (before installation of the project) land categorization, as per Government records	<input type="checkbox"/> Agricultural. If Yes, has it been converted to Non-agricultural land? Provide the documentation for the same.

Sr. No.	Parameter	Description
		<input type="checkbox"/> Non-Agricultural <input type="checkbox"/> Government <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Forest <input type="checkbox"/> Others. Please specify _____
8.	Previous Land Use of Project Area: <i>(The purpose for which the project land was being used)</i>	<input type="checkbox"/> Farming/plantation <input type="checkbox"/> Human Habitation <input type="checkbox"/> Commercial/Business operations <input type="checkbox"/> Industrial <input type="checkbox"/> Tree cover <input type="checkbox"/> Unused <input type="checkbox"/> Other
9.	Land Conversion: Has land conversion been executed?	<input type="checkbox"/> Yes. Provide documentation <input type="checkbox"/> No. State the reason. _____
10	Project Status:	<input type="checkbox"/> Implementation yet to begin (planning phase) <input type="checkbox"/> Under Construction <input type="checkbox"/> Commissioned (provide date of commissioning) <input type="checkbox"/> Other (specify)
11.	Associated Infrastructure(productive loads, evacuation infrastructure etc.)	

### C. Environment and Social Information

Sr. No.	QUESTION	RESPONSE
1.	Has there been any Environment and Social Impact Assessment (ESIA) or Environment Social Management Plan(ESMP) of the project?	<input type="checkbox"/> Yes, provide report <input type="checkbox"/> No, are there plans to carry out the same? _____

Sr. No.	QUESTION	RESPONSE
2.	Land procurement	<input type="checkbox"/> Government Land: Allotment <input type="checkbox"/> Private: Self Owned <input type="checkbox"/> Private: Willing seller. <input type="checkbox"/> Private: Leased. Mention the lease tenure- _____ years
3.	Are there any community facilities in/around (within 500 m radius) the project site? If yes, please name the facility and specify the distance from project boundary?	<input type="checkbox"/> Any place of worship _____ m <input type="checkbox"/> Community center _____ m <input type="checkbox"/> Pond _____ m <input type="checkbox"/> School _____ m <input type="checkbox"/> Hospital _____ m <input type="checkbox"/> Others. Please specify _____ m
4.	Is the access to any one of the above mentioned facilities affected, due to the project?	<input type="checkbox"/> Yes. Please mention the facility and how. _____ <input type="checkbox"/> No
5.	Does the project require involuntary displacement of people?	<input type="checkbox"/> Yes. How many individuals/ families were displaced? <input type="checkbox"/> No
6.	Is there any of these within 10 km radius of the project boundary? If yes, please provide details and the distance from site.	<input type="checkbox"/> Unregulated river <input type="checkbox"/> Primary forest <input type="checkbox"/> Physical cultural/religious heritage site <input type="checkbox"/> Wildlife Sanctuary <input type="checkbox"/> National Park <input type="checkbox"/> Range of endangered or threatened animals <input type="checkbox"/> Wetland/Water body <input type="checkbox"/> Special Biodiversity Rich Area <input type="checkbox"/> Area used by indigenous peoples <input type="checkbox"/> Mangrove/ Estuary (in case of coastal projects)
7.	Does the project require involuntary displacement of people?	<input type="checkbox"/> Yes. How many individuals/ families were displaced? _____

Sr. No.	QUESTION	RESPONSE
		<input type="checkbox"/> No
8.	What is the distance of the nearest human settlement from the project boundary?(m/km)	
9.	Is there any indigenous/tribal population around the project site?	<input type="checkbox"/> Yes. Provide details. _____ <input type="checkbox"/> No
10.	What are the measures being adopted to ensure the occupational health and safety during the project construction and operations?	<input type="checkbox"/> Personnel Protective Equipment. Mention _____ <input type="checkbox"/> Health and Safety Trainings. Provide details _____ <input type="checkbox"/> Certifications such as OHSAS. Provide details _____ <input type="checkbox"/> Company's Environment Health and Safety Policy/Manual or EHS Policy. Provide details copy _____ <input type="checkbox"/> Others. Please specify
11.	What is the number and source of labor hired by the owner or contractor? (local or migrant)	<input type="checkbox"/> Local _____ <input type="checkbox"/> Migrant. Details of the arrangement for their lodging and other facilities? _____ <input type="checkbox"/> Both _____
12.	Are there any female workers in the project?	<input type="checkbox"/> Yes. Specify the number and kind of activities they are involved in. _____ <input type="checkbox"/> No
13.	Does the project require any blasting?	<input type="checkbox"/> Yes. Please provide details/documents of the permission obtained _____ <input type="checkbox"/> No
14.	Does the project require felling of trees?	<input type="checkbox"/> Yes. Please provide the number of trees? _____ <input type="checkbox"/> No
15.	Is there any compensation being paid for felling of trees?	<input type="checkbox"/> Yes. Please provide the details? _____ <input type="checkbox"/> No
16.	What are the other ancillary facilities developed for the project? How much area is involved in developing each of such facilities?	<input type="checkbox"/> Office Space _____sq. m <input type="checkbox"/> Accommodation/Labour camp _____sq. m

Sr. No.	QUESTION	RESPONSE
		<input type="checkbox"/> Access Road _____ km <input type="checkbox"/> Transmission line _____ km <input type="checkbox"/> Others _____
17.	What is the length of the downstream section of the river that will get dewatered?(m/km)	
18.	Do the downstream communities depend on the river water for any of the domestic activities or livelihood?	<input type="checkbox"/> Yes. Please provide the details? _____ <input type="checkbox"/> No
19.	Will the project impact downstream water quality in terms of dissolved oxygen, toxicity, sediment load, etc.?	<input type="checkbox"/> Yes. Please provide the details? _____ <input type="checkbox"/> No
20.	Is the NOC from fisheries department obtained?	<input type="checkbox"/> Yes. Please provide documents. _____ <input type="checkbox"/> No
21.	Are there any other power projects upstream or downstream of the river or deriving water from the same river basin? If yes,	<input type="checkbox"/> Yes. Provide names and capacity. _____ <input type="checkbox"/> No

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Mention the contact details of the Local Forest Official:** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name:

Email:

Contact No.:

Date:

**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  1. Environment Management Plan (Land, Water, Waste, etc)
  2. Occupational Health & Safety Plan
  3. Social Management and Community Health, Safety & Security Plan
  4. Grievance Redressal Plan
- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400

## **Annex B1.6: E&S Questionnaire - Run Of River Hydro Power**

### **A. Borrower Information**

**Application Registration Number (ARN):**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person from Borrower for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
1.	Total Power Capacity of Project (kW):	
2.	Grid Connection:	<input type="checkbox"/> Grid Connected <input type="checkbox"/> Off grid
3.	No. of turbines:	
4.	Rated power of each turbine (kW/:	
5.	Total Area used by the project (Sq. mtrs/ Acres/ Hectares):	
6.	Geographical coordinates (Lat, Long):	Latitude-      °(N/S) Longitude-      °(E/W)
7.	Previous (before installation of the project) land categorization, as per Government records	<input type="checkbox"/> Agricultural. If Yes, has it been converted to Non-agricultural land? Provide the documentation for the same.

Sr. No.	Parameter	Description
		<input type="checkbox"/> Non-Agricultural <input type="checkbox"/> Government (Mention the lease period) <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Forest (Provide documents for the same) <input type="checkbox"/> Others. Please specify _____
8.	Previous Land Use of Project Area: <i>(The purpose for which the project land was being used)</i>	<input type="checkbox"/> Farming/plantation <input type="checkbox"/> Human Habitation <input type="checkbox"/> Commercial/Business operations <input type="checkbox"/> Industrial <input type="checkbox"/> Tree cover <input type="checkbox"/> Unused <input type="checkbox"/> Other
9.	Land Conversion: Has land conversion been executed?	<input type="checkbox"/> Yes. Provide documentation <input type="checkbox"/> No. State the reason. _____
10	Project Status:	<input type="checkbox"/> Implementation yet to begin (planning phase) <input type="checkbox"/> Under Construction <input type="checkbox"/> Commissioned (provide date of commissioning) <input type="checkbox"/> Other (specify)
11.	Associated Infrastructure (productive loads, evacuation infrastructure etc.)	

### C. Environment and Social Information

Sr. No.	QUESTION	RESPONSE
1.	Has there been any Environment and Social Impact Assessment (ESIA/Environment and	<input type="checkbox"/> Yes, provide report <input type="checkbox"/> No, are there plans to carry out the same? _____



Sr. No.	QUESTION	RESPONSE
	Social Management Plan (ESMP) of the project?	
2.	Land procurement	<input type="checkbox"/> Government Land: Allotment <input type="checkbox"/> Private: Self Owned <input type="checkbox"/> Private: Willing seller. <input type="checkbox"/> Private: Leased. Mention the lease tenure_____years
3.	Are there any community facilities in/around (within 500 m radius) the project site? If yes, please name the facility and specify the distance from project boundary?	<input type="checkbox"/> Any place of worship _____m <input type="checkbox"/> Community center _____m <input type="checkbox"/> Pond _____m <input type="checkbox"/> School _____m <input type="checkbox"/> Hospital _____m <input type="checkbox"/> Others. Please specify _____m
4.	Is the access to any one of the above mentioned facilities affected, due to the project?	<input type="checkbox"/> Yes. Please mention the facility and how. _____ <input type="checkbox"/> No
5.	Does the project require involuntary displacement of people?	<input type="checkbox"/> Yes. How many individuals/ families were displaced? <input type="checkbox"/> No
6.	Is there any of these within 10 km radius of the project boundary? If yes, please provide details and the distance from site.	<input type="checkbox"/> Unregulated river <input type="checkbox"/> Primary forest <input type="checkbox"/> Physical cultural/religious heritage site <input type="checkbox"/> Wildlife Sanctuary <input type="checkbox"/> National Park <input type="checkbox"/> Range of endangered or threatened animals <input type="checkbox"/> Wetland/Water body <input type="checkbox"/> Special Biodiversity Rich Area <input type="checkbox"/> Mangrove/ Estuary (in case of coastal projects)
7.	Does the project require	<input type="checkbox"/> Yes. How many individuals/ families were displaced?

Sr. No.	QUESTION	RESPONSE
	involuntary displacement of people?	_____ <input type="checkbox"/> No
8.	What is the distance of the nearest human settlement from the project boundary?(m/km)	
9.	Is there any indigenous/tribal population around the project site?	<input type="checkbox"/> Yes. Provide details._____ <input type="checkbox"/> No
10	What are the measures being adopted to ensure the occupational health and safety during the project construction and operations?	<input type="checkbox"/> Personnel Protective Equipment. Mention _____ <input type="checkbox"/> Health and Safety Trainings. Provide details _____ <input type="checkbox"/> Certifications such as OHSAS. Provide details _____ <input type="checkbox"/> Company's Environment Health and Safety Policy/Manual. Provide details copy _____ or EHS Policy <input type="checkbox"/> Others. Please specify
11.	What is the number and source of labor hired by the owner or contractor? (local or migrant)	<input type="checkbox"/> Local _____ <input type="checkbox"/> Migrant. Details of the arrangement for their lodging and other facilities? _____ <input type="checkbox"/> Both _____
12.	Provision of basic facilities for the labour	<input type="checkbox"/> Drinking water _____ <input type="checkbox"/> Sanitation _____ <input type="checkbox"/> Others _____
13.	Are there any female workers in the project?	<input type="checkbox"/> Yes. Specify the number and kind of activities they are involved in._____ <input type="checkbox"/> No
14	Does the project require any blasting?	<input type="checkbox"/> Yes. Please provide details/documents of the permission obtained _____ <input type="checkbox"/> No
15.	Does the project require felling of trees?	<input type="checkbox"/> Yes. Please provide the number of trees? _____ <input type="checkbox"/> No
16.	Is there any compensation	<input type="checkbox"/> Yes. Please provide the details?

Sr. No.	QUESTION	RESPONSE
	being paid for felling of trees?	<div></div> <input type="checkbox"/> No
17	Does the project require material quarrying? If yes, what is the location of quarry and distance from the project site? Attach permissions	<input type="checkbox"/> Yes. What is the location of quarry and distance from the project site? <div></div> <input type="checkbox"/> No
18	What is the arrangement for muck disposal? What is the area of muck disposal site and its distance from power house?	<input type="checkbox"/> Yes. What is the location of quarry and distance from the project site? <div></div> <input type="checkbox"/> No
19	What are the other ancillary facilities developed for the project? How much area is involved in developing each of such facilities?	<input type="checkbox"/> Office Space <div></div> sq. m <input type="checkbox"/> Accommodation/labour camp <div></div> sq. m <input type="checkbox"/> Access Road <div></div> km <input type="checkbox"/> Transmission line <div></div> km <input type="checkbox"/> Others <div></div>
20	What is the length of the downstream section of the river that will get dewatered?(m/km)	
21	What is the required minimum flow to be maintained in the downstream de-watered channel? How much is the actual flow being maintained?(percentage of original flow or m <sup>3</sup> /s)	
22	Do the downstream communities depend on the river water for any of the domestic activities or livelihood?	<input type="checkbox"/> Yes. Please provide the details? <div></div> <input type="checkbox"/> No
23	Will the project impact downstream water quality in terms of dissolved oxygen, toxicity, sediment	<input type="checkbox"/> Yes. Please provide the details? <div></div>

Sr. No.	QUESTION	RESPONSE
	load, etc.?	<input type="checkbox"/> No
24	Will the project involve peaking operations that may result in alternating low and high flows downstream of the dam?	<input type="checkbox"/> Yes. Mention details <hr/> <input type="checkbox"/> No
25	Does the project create any kind of barrier for the migratory land or aquatic fauna?	<input type="checkbox"/> Yes. Mention details and the mitigations being adopted <hr/> <input type="checkbox"/> No
26	Is the NOC from fisheries department obtained?	<input type="checkbox"/> Yes. Please provide documents. <hr/> <input type="checkbox"/> No
27	Are there any other power projects upstream or downstream of the river or deriving water from the same river basin? If yes, provide details.	<input type="checkbox"/> Yes. Provide names and capacity. <hr/> <input type="checkbox"/> No

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Mention the contact details of the Local Forest Official:** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name: \_\_\_\_\_ Email: \_\_\_\_\_ Contact No.: \_\_\_\_\_

Date: \_\_\_\_\_

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**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  1. Environment Management Plan (Land, Water, Waste, etc)
  2. Occupational Health & Safety Plan
  3. Social Management and Community Health, Safety & Security Plan
  4. Grievance Redressal Plan

- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400

## **Annex B1.7: E&S Questionnaire– Reservoir Based Hydro Power**

### **A. Borrower Information**

**Application Registration Number (ARN)**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person from Borrower for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
1.	Total Power Capacity of Project (kW):	
2.	Grid Connection:	<input type="checkbox"/> Grid Connected <input type="checkbox"/> Off grid
3.	No. of turbines:	
4.	Rated power of each turbine(kW/MW):	
5.	Total Area used by the project(Sq. mtrs/ Acres/ Hectares):	
6.	Geographical coordinates(Lat, Long):	Latitude-      °(N/S) Longitude-      °(E/W)
7.	Previous(before installation of the project) land categorization, as per Government records	<input type="checkbox"/> Agricultural. If Yes, has it been converted to Non-agricultural land? Provide the documentation for the same.

Sr. No.	Parameter	Description
		<input type="checkbox"/> Non-Agricultural <input type="checkbox"/> Government <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Forest <input type="checkbox"/> Others. Please specify _____
8.	Previous Land Use of Project Area: <i>(The purpose for which the project land was being used)</i>	<input type="checkbox"/> Agriculture <input type="checkbox"/> Human Habitation <input type="checkbox"/> Commercial/Business operations <input type="checkbox"/> Industrial <input type="checkbox"/> Forest <input type="checkbox"/> Unused <input type="checkbox"/> Other
9.	Land Conversion: Has land conversion been executed?	<input type="checkbox"/> Yes. Provide documentation <input type="checkbox"/> No. State the reason. _____
10	Project Status:	<input type="checkbox"/> Implementation yet to begin (planning phase) <input type="checkbox"/> Under Construction <input type="checkbox"/> Commissioned (provide date of commissioning) <input type="checkbox"/> Other (specify)
11.	Associated Infrastructure (productive loads, evacuation infrastructure etc.)	

### C. Environment and Social Information

Sr. No.	QUESTION	RESPONSE
1.	Has there been any Environment and Social Impact Assessment (ESIA) of the project?	<input type="checkbox"/> Yes, provide report <input type="checkbox"/> No, are there plans to carry out the same? _____
2.	Land procurement	<input type="checkbox"/> Government Land: Allotment

Sr. No.	QUESTION	RESPONSE
		<input type="checkbox"/> Private: Self Owned <input type="checkbox"/> Private: Willing seller. <input type="checkbox"/> Private: Leased. Mention the lease tenor- _____ years
3.	Are there any community facilities in/around (within 500 m radius) the project site? If yes, please name the facility and specify the distance from project boundary?	<input type="checkbox"/> Any place of worship _____ m <input type="checkbox"/> Community center _____ m <input type="checkbox"/> Pond _____ m <input type="checkbox"/> School _____ m <input type="checkbox"/> Hospital _____ m <input type="checkbox"/> Others. Please specify _____ m
4.	Is the access to any one of the above mentioned facilities affected, due to the project?	<input type="checkbox"/> Yes. Please mention the facility and how. _____ <input type="checkbox"/> No
5.	Does the project require involuntary displacement of people?	<input type="checkbox"/> Yes. How many individuals/ families were displaced? <input type="checkbox"/> No
6.	Is there any of these within 10 km radius of the project boundary? If yes, please provide details and the distance from site.	<input type="checkbox"/> Unregulated river <input type="checkbox"/> Physical cultural/religious heritage site <input type="checkbox"/> Wildlife Sanctuary <input type="checkbox"/> National Park <input type="checkbox"/> Range of endangered or threatened animals <input type="checkbox"/> Wetland/Water body <input type="checkbox"/> Special Biodiversity Rich Area <input type="checkbox"/> Area used by indigenous peoples <input type="checkbox"/> Mangrove/ Estuary (in case of coastal projects)
7.	Does the project require involuntary displacement of people?	<input type="checkbox"/> Yes. How many individuals/ families were displaced? _____ <input type="checkbox"/> No
8.	What is the distance of the nearest human settlement	



Sr. No.	QUESTION	RESPONSE
	from the project boundary?(m/km)	
9.	Is there any indigenous/tribal population around the project site?	<input type="checkbox"/> Yes. Provide details. _____ <input type="checkbox"/> No
10	What are the measures being adopted to ensure the occupational health and safety during the project construction and operations?	<input type="checkbox"/> Personnel Protective Equipment. Mention _____ <input type="checkbox"/> Health and Safety Trainings. Provide details _____ <input type="checkbox"/> Certifications such as OHSAS. Provide details _____ <input type="checkbox"/> Company's Health and Safety Manual. Provide details copy _____ <input type="checkbox"/> Others. Please specify _____
11.	What is the number and source of labor hired by the owner or contractor? (local or migrant)	<input type="checkbox"/> Local _____ <input type="checkbox"/> Migrant. Details of the arrangement for their lodging and other facilities? _____ <input type="checkbox"/> Both _____
12	Are there any female workers in the project?	<input type="checkbox"/> Yes. Specify the number and kind of activities they are involved in. _____ <input type="checkbox"/> No
13.	Does the project require any blasting?	<input type="checkbox"/> Yes. Please provide details/documents of the permission obtained _____ <input type="checkbox"/> No
14	Does the project require felling of trees?	<input type="checkbox"/> Yes. Please provide the number of trees? _____ <input type="checkbox"/> No
15.	Is there any compensation being paid for felling of trees?	<input type="checkbox"/> Yes. Please provide the details? _____ <input type="checkbox"/> No
16.	Does the project require material quarrying? If yes, what is the location of quarry and distance from the project site?	<input type="checkbox"/> Yes. What is the location of quarry and distance from the project site? _____ <input type="checkbox"/> No
17.	What is the arrangement for muck disposal? What is	<input type="checkbox"/> Yes. What is the location of quarry and distance from the project site? _____

Sr. No.	QUESTION	RESPONSE
	the area of muck disposal site and its distance from power house?	<input type="checkbox"/> No
18	What are the other ancillary facilities developed for the project? How much area is involved in developing each of such facilities?	<input type="checkbox"/> Office Space _____sq. m <input type="checkbox"/> Accommodation _____sq. m <input type="checkbox"/> Access Road _____km <input type="checkbox"/> Others _____
19	What is the length of the downstream section of the river that will get dewatered?(m/km)	
20	What is the required minimum flow to be maintained in the downstream de-watered channel? How much is the actual flow being maintained?(percentage of original flow or m <sup>3</sup> /s)	
21	Do the downstream communities depend on the river water for any of the domestic activities or livelihood?	<input type="checkbox"/> Yes. Please provide the details? _____ <input type="checkbox"/> No
22	Will the project impact downstream water quality in terms of dissolved oxygen, toxicity, sediment load, etc.?	<input type="checkbox"/> Yes. Please provide the details? _____ <input type="checkbox"/> No
23	Does the project involve creation of water storage reservoir and/or dam, which will result in flooding of additional land?	<input type="checkbox"/> Yes. What is the size/area of the reservoir? _____ <input type="checkbox"/> No
24	Will the project involve peaking operations that may result in alternating low and high flows downstream of the dam?	<input type="checkbox"/> Yes. Mention details _____ <input type="checkbox"/> No
25	Does the project involve diversion of water from one river basin to the other?	<input type="checkbox"/> Yes. Mention details _____ <input type="checkbox"/> No

Sr. No.	QUESTION	RESPONSE
26	Does the project create any kind of barrier for the migratory land or aquatic fauna?	<input type="checkbox"/> Yes. Mention details <input type="checkbox"/> No
27	Is the NOC from fisheries department obtained?	<input type="checkbox"/> Yes. Please provide documents. <input type="checkbox"/> No
28	Are there any other power projects upstream or downstream of the river or deriving water from the same river basin? If yes, provide details.	<input type="checkbox"/> Yes. Provide names and capacity. <input type="checkbox"/> No

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Mention the contact details of the Local Forest Official:** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name: Email: Contact No.:

Date:

-----

**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  - Environment Management Plan (Land, Water, Waste, etc)
  - Occupational Health & Safety Plan
  - Social Management and Community Health, Safety & Security Plan
  - Grievance Redressal Plan
- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400

## Annex B1.8. E&S Questionnaire– Solar Mini Grid

### A. Borrower Information

**Application Registration Number (ARN):**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person from Borrower for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### B. Project Design Data

Sr. No.	Parameter	Description
1.	Total Power Capacity of Project (MW):	
2.	Technology:	<input type="checkbox"/> Thin Film <input type="checkbox"/> Monocrystalline <input type="checkbox"/> Polycrystalline <input type="checkbox"/> Any Other (Please Specify)
3.	Capacity of the Battery Bank (AmpH):	
4.	Type of Battery:	<input type="checkbox"/> Lead Acid <input type="checkbox"/> Lithium Ion <input type="checkbox"/> Others, specify _____
5.	No. of batteries installed:	
6.	Total Area covered (Acres/ Hectares):	
7.	Previous Land Use of Project Area:	<input type="checkbox"/> Agricultural <input type="checkbox"/> Non-Agricultural <input type="checkbox"/> Commercial

Sr. No.	Parameter	Description
		<input type="checkbox"/> Residential <input type="checkbox"/> Forest <input type="checkbox"/> Government <input type="checkbox"/> Other (specify)
8.	Geographical Coordinates (Lat, Long)	Latitude-      ° (N/S) Longitude-      ° (E/W)
9.	Project Status:	<input type="checkbox"/> Implementation yet to begin (planning phase) <input type="checkbox"/> Under Construction <input type="checkbox"/> Commissioned (provide date of commissioning) <input type="checkbox"/> Other (specify)
10.	Associated Infrastructure in and outside project area (like transmission line, productive loads etc.)	

### C. Environment and Social Information

Sr. No.	QUESTION	RESPONSE
1.	Has there been any Environment and Social Impact Assessment (ESIA) of the project?	<input type="checkbox"/> Yes, provide report <input type="checkbox"/> No, are there plans to carry out the same? _____
2.	Land procurement	<input type="checkbox"/> Government Land: Allotment <input type="checkbox"/> Private: Self Owned <input type="checkbox"/> Private: Willing seller. <input type="checkbox"/> Private: Leased. Mention the lease tenor- _____ years
3.	What is the land use in the vicinity (500 m) of project site? Kind of activities around the project site?	<input type="checkbox"/> Residential <input type="checkbox"/> Agriculture <input type="checkbox"/> Commercial <input type="checkbox"/> Forest <input type="checkbox"/> Others, specify _____
4.	What is the distance of the nearest human settlement from the project boundary?	

Sr. No.	QUESTION	RESPONSE
	(m/km)	
5.	Are there any female workers in the project?	<input type="checkbox"/> Yes. Specify the kind of activities they are involved in.  <input type="checkbox"/> No
6.	Is there any indigenous/tribal population around the project site?	<input type="checkbox"/> Yes. Provide details.  <input type="checkbox"/> No
7.	What are the measures being adopted to ensure the occupational health and safety during the project installation and operations?	<input type="checkbox"/> Personnel Protective Equipment. Mention _____ <input type="checkbox"/> Health and Safety Trainings. Provide details _____ <input type="checkbox"/> Quality Certifications such as ISO/IEC/BIS/etc. Provide details _____ <input type="checkbox"/> Others. Please specify _____
8.	What is the number and source of labor hired by the owner or contractor? (local or migrant)	<input type="checkbox"/> Local <input type="checkbox"/> Migrant. Details of the arrangement for their lodging and other facilities? _____ <input type="checkbox"/> Both
9.	What is the frequency of cleaning and estimated water consumption for this purpose?	Frequency: _____ cleaning cycles in a month Water Usage: _____ litres per cleaning cycle
10.	What is the source of water to be used for cleaning?	<input type="checkbox"/> Ground Water <input type="checkbox"/> Surface Water Body. Specify _____ <input type="checkbox"/> Private Water Tankers. Provide source of water for tankers _____ <input type="checkbox"/> Others. Provide details _____
11.	What is the arrangement for disposal of broken panels?	<input type="checkbox"/> Panel Repair/replacement options from supplier. Provide details _____ <input type="checkbox"/> Training to operator. Please details _____ <input type="checkbox"/> Others. Provide details _____
12.	What is the arrangement for disposal of batteries?	<input type="checkbox"/> Training to operator in case of any battery issue. Provide details _____

Sr. No.	QUESTION	RESPONSE
		<input type="checkbox"/> Battery Repair/replacement/ buy back options with the manufacturer. Provide details <hr/> <input type="checkbox"/> Arrangement with battery manufacturer/ registered recycler. Provide copy <hr/> <input type="checkbox"/> Others. Provide details <hr/>
13	Is there a provision/ plan for rainwater harvesting? If yes, what is the status thereof?	

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name: Email: Contact No.:

Date:

-----

**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  1. Environment Management Plan (Land, Water, Waste, etc)
  2. Occupational Health & Safety Plan
  3. Social Management and Community Health, Safety & Security Plan
  4. Grievance Redressal Plan
- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400

## Annex B1.9. E&S Questionnaire - Solar Home Lighting Systems

### A. Borrower Information

**Application Registration Number (ARN):**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### B. Project Design Data

Sr. No.	Parameter	Description
1.	Total Power Capacity of Project (kW/MW):	
2.	Power Capacity of each SHS (kW):	
3.	Capacity of battery in each SHS (AmpH):	
4.	Number of Systems covered in the project:	
5.	Grid Connection	<input type="checkbox"/> Grid connected <input type="checkbox"/> Off Grid
6.	Technology:	<input type="checkbox"/> Thin Film <input type="checkbox"/> Monocrystalline <input type="checkbox"/> Polycrystalline <input type="checkbox"/> Any Other (Please Specify)
7.	Use of Project Building:	<input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Institutional



Sr. No.	Parameter	Description
		<input type="checkbox"/> Other (specify)
8.	Geographical coordinates(Lat, Long)	Latitude- °(N/S) Longitude- °(E/W)
9.	Project Status:	<input type="checkbox"/> Implementation yet to begin (planning phase) <input type="checkbox"/> Under Construction <input type="checkbox"/> Commissioned (provide date of commissioning) <input type="checkbox"/> Other (specify)
10.	Associated Infrastructure in and outside project area (like transmission line, productive loads etc.)	

### C. Environment and Social Information

Sr. No.	QUESTION	RESPONSE
1.	Has there been any Environment and Social Impact Assessment (ESIA) of the project?	<input type="checkbox"/> Yes, provide report <input type="checkbox"/> No, are there plans to carry out the same? _____
2.	Is there any indigenous/tribal population in/around the project area?	<input type="checkbox"/> Yes. Provide details. <input type="checkbox"/> No
3.	What are the measures being adopted to ensure the health and safety of the occupants?	<input type="checkbox"/> Health and Safety Awareness measures. Provide details _____ <input type="checkbox"/> Product/ Equipment safety manual. Provide copy <input type="checkbox"/> Quality Certifications such as ISO/IEC/BIS/etc. Provide details <input type="checkbox"/> Others. Please specify
4.	What is the arrangement for disposal of broken panels?	<input type="checkbox"/> Consumer awareness about steps to be followed in case of panel damage. Provide details _____ <input type="checkbox"/> Panel Repair/replacement options to be consumer. Provide details _____ <input type="checkbox"/> Approachable Customer Service Centre. Please provide contact details and location _____

Sr. No.	QUESTION	RESPONSE
		<input type="checkbox"/> Others. Provide details _____
5.	What is the arrangement for disposal of batteries?	<input type="checkbox"/> Consumer awareness about steps to be followed in case of any battery issue. Provide details _____  <input type="checkbox"/> Battery Repair/replacement/ buy back options for the consumer. Provide details _____  <input type="checkbox"/> Approachable Customer Service Centre. Please provide contact details and location _____  <input type="checkbox"/> Arrangement with battery manufacturer/ registered recycler. Provide copy _____  <input type="checkbox"/> Others. Provide details _____

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name:

Email:

Contact No.:

Date:

-----

**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  1. Environment Management Plan (Land, Water, Waste, etc)
  2. Occupational Health & Safety Plan
  3. Social Management and Community Health, Safety & Security Plan
  4. Grievance Redressal Plan
- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400

## ***Annex B1.10: E&S Questionnaire- Solar Irrigation Pumps***

### **A. Borrower Information**

**Application Registration Number (ARN):**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person for Environmental & Social Issues from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
<b>1.</b>	Total Power Capacity of Project (HP/kW):	
<b>2.</b>	No. of pumps under the project:	
<b>3.</b>	Type of connection	<input type="checkbox"/> Grid Connected <input type="checkbox"/> Off grid
<b>4.</b>	PV Technology:	<input type="checkbox"/> Thin Film <input type="checkbox"/> Monocrystalline <input type="checkbox"/> Polycrystalline <input type="checkbox"/> Any Other (Please Specify)
<b>5.</b>	Total Area covered through solar panels (Sq. mtrs):	
<b>6.</b>	Geographical coordinates(Lat, Long)	Latitude-      ° (N/S) Longitude-     ° (E/W)

Sr. No.	Parameter	Description
7.	Project Status:	<input type="checkbox"/> Implementation yet to begin (planning phase) <input type="checkbox"/> Under Construction <input type="checkbox"/> Commissioned (provide date of commissioning) <input type="checkbox"/> Other (specify)
8.	Associated Infrastructure (pump capacity and other details)	

### C. Environment and Social Information

Sr. No.	QUESTION	RESPONSE
1.	What is the volume of water pumped and average number of operating hours for the pump?	Water pumping capacity _____ litre/hour No. of Operating Hours _____ hrs/month
2.	What is the source of water which is being pumped?	<input type="checkbox"/> Ground Water <input type="checkbox"/> Canal <input type="checkbox"/> River <input type="checkbox"/> Others. Please specify _____
3.	What is the depth of the ground water level?	Water Table _____ feet
4.	What is the categorization of the project block/Mandal / taluka/district with respect to ground water resources?	<input type="checkbox"/> Safe <input type="checkbox"/> Semi Critical <input type="checkbox"/> Critical <input type="checkbox"/> Over Exploited
5.	Is the power generated from the solar panels being used for purposes other than pumping?	<input type="checkbox"/> Household electrification <input type="checkbox"/> Productive loads <input type="checkbox"/> Commercial loads <input type="checkbox"/> Others. Please specify _____
6.	Is the water being used for purposes other than irrigation?	<input type="checkbox"/> Drinking <input type="checkbox"/> Sanitation <input type="checkbox"/> Fisheries

Sr. No.	QUESTION	RESPONSE
		<input type="checkbox"/> Others. Please specify_____
7.	How was the water requirement being met prior to the implementation of the project?	<input type="checkbox"/> Manual Extraction <input type="checkbox"/> Grid Connected power <input type="checkbox"/> Diesel generator <input type="checkbox"/> Others. Please specify_____
8.	Are the beneficiaries being educated about judicious use of water?	<input type="checkbox"/> Yes. Specify how._____ <input type="checkbox"/> No. Specify the reason for not educating the beneficiaries about the same._____
9.	What are the measures being adopted to ensure the health and safety of the users?	<input type="checkbox"/> Health and Safety Awareness measures. Provide details_____ <input type="checkbox"/> Product/ Equipment safety manual. Provide copy <input type="checkbox"/> Quality Certifications of the equipment such as ISO/IEC/BIS/etc. Provide details <input type="checkbox"/> Others. Please specify
10.	What is the arrangement for disposal of broken panels?	<input type="checkbox"/> Consumer awareness about steps to be followed in case of panel damage. Provide details _____ <input type="checkbox"/> Panel Repair/replacement options to be consumer. Provide details _____ <input type="checkbox"/> Approachable Customer Service Centre. Please provide contact details and location _____ <input type="checkbox"/> Others. Provide details _____
11.	Does the project involve installation of battery bank?	<input type="checkbox"/> Yes. What is the type and capacity? _____ <input type="checkbox"/> No
12.	What is the arrangement for disposal of batteries, in case installed?	<input type="checkbox"/> Consumer awareness about steps to be followed in case of any battery issue. Provide details _____

Sr. No.	QUESTION	RESPONSE
		<input type="checkbox"/> Battery Repair/replacement/ buy back options for the consumer. Provide details <hr/> <input type="checkbox"/> Approachable Customer Service Centre. Please provide contact details and location <hr/> <input type="checkbox"/> Arrangement with battery manufacturer/ registered recycler. Provide copy <hr/> <input type="checkbox"/> Others. Provide details <hr/>
13.	Is there any indigenous/tribal population around the project site?	<input type="checkbox"/> Yes. Provide details _____ <input type="checkbox"/> No

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name: Email: Contact No.:

Date:

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**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  - Environment Management Plan (Land, Water, Waste, etc)
  - Occupational Health & Safety Plan
  - Social Management and Community Health, Safety & Security Plan
  - Grievance Redressal Plan
- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400

## **Annex B1.11: E&S Questionnaire - Aerogenerators & Solar Wind Hybrid**

### **A. Borrower Information**

**Application Registration Number (ARN)**

**Project Title:**

**Location:**

**Borrower:**

**Contact Details of Responsible Person from Borrower for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
<b>1.</b>	Type of project	<input type="checkbox"/> Aero-generators <input type="checkbox"/> Solar Wind Hybrid
<b>2.</b>	Total Power Capacity of Project (kW):	
<b>3.</b>	Grid connection	<input type="checkbox"/> Grid Connected <input type="checkbox"/> Off grid
<b>4.</b>	Solar panel Technology (if hybrid)	<input type="checkbox"/> Thin Film <input type="checkbox"/> Monocrystalline <input type="checkbox"/> Polycrystalline <input type="checkbox"/> Any Other (Please Specify)
<b>5.</b>	Solar panel capacity(if hybrid)	
<b>6.</b>	Rated Power of each Wind Turbine (kW):	

Sr. No.	Parameter	Description
7.	Total number of wind turbines	
8.	Total Area covered:	
9.	Previous Land Category of Project Area:	<input type="checkbox"/> Agricultural <input type="checkbox"/> Non Agricultural <input type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Forest <input type="checkbox"/> Government <input type="checkbox"/> Other (specify)_____
10.	Geographical Coordinates(Lat, Long)	Latitude-      °(N/S) Longitude-      °(E/W)
11.	Project Status:	<input type="checkbox"/> Implementation yet to begin <input type="checkbox"/> Under Construction <input type="checkbox"/> Commissioned (provide date of commissioning) <input type="checkbox"/> Others (specify)
12.	Associated Infrastructure in and outside project area (like transmission line, productive loads etc.)	

### C. Environment and Social Information

Sr. No.	QUESTION	RESPONSE
1.	Has there been any Environment and Social Impact Assessment (ESIA) of the project?	<input type="checkbox"/> Yes, provide report <input type="checkbox"/> No, are there plans to carry out the same? _____
2.	Land/roof-space procurement	<input type="checkbox"/> Government Land: Allotment <input type="checkbox"/> Private: Self Owned <input type="checkbox"/> Private: Willing seller. <input type="checkbox"/> Private: Leased. Mention the lease tenor- _____ years
3.	Previous land/space categorization (before the plant installation)	<input type="checkbox"/> Agricultural. If Yes, has it been converted to Non-agricultural land? Provide the documentation for the same.



Sr. No.	QUESTION	RESPONSE
		<input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Others. Please specify _____ 
4.	Land Conversion: Has Agricultural land been converted to Non-Agricultural?	<input type="checkbox"/> Yes. Provide documentation <input type="checkbox"/> No. State the reason _____ 
5.	Are there any community facilities in/around (within 500 m radius) the project site? If yes, please name of the facility and specify the distance from project boundary?	<input type="checkbox"/> Any place of worship _____m <input type="checkbox"/> Community center _____m <input type="checkbox"/> Pond _____m <input type="checkbox"/> School _____m <input type="checkbox"/> Hospital _____m <input type="checkbox"/> Others. Please specify _____ 
6.	Is the access to any one of the above mentioned options affected, due to the project?	<input type="checkbox"/> Yes. Please mention the facility and how. <input type="checkbox"/> No 
7.	Is there any of these within 10 km radius of the project boundary? If yes, please provide details and the distance from site.	<input type="checkbox"/> Physical Cultural/Religious Heritage Site <input type="checkbox"/> Wildlife Sanctuary <input type="checkbox"/> National Park <input type="checkbox"/> Wetland/Water Body <input type="checkbox"/> Mangrove/ Estuary (in case of coastal projects) <input type="checkbox"/> Special Biodiversity Rich Area 
8.	Does the project require involuntary displacement of people?	<input type="checkbox"/> Yes. How many individuals/ families were displaced? <input type="checkbox"/> No 

Sr. No.	QUESTION	RESPONSE
9.	What is the distance of the nearest human settlement from the project boundary? (km)	
10.	Are there any female workers in the project?	<input type="checkbox"/> Yes. Specify the kind of activities they are involved in.  <input type="checkbox"/> No
11.	Is there any indigenous/tribal population around the project site?	<input type="checkbox"/> Yes. Provide details.  <input type="checkbox"/> No
12.	What are the measures being adopted to ensure the occupational health and safety during the project construction and operations?	<input type="checkbox"/> Personnel Protective Equipment. Mention _____  <input type="checkbox"/> Health and Safety Trainings. Provide details _____  <input type="checkbox"/> Certifications such as OHSAS. Provide details _____  <input type="checkbox"/> Company's Health and Safety. Provide details _____  <input type="checkbox"/> Others. Please specify _____
13.	What is the number and source of labor hired by the owner or contractor? (local or migrant)	<input type="checkbox"/> Local _____  <input type="checkbox"/> Migrant. Details of the arrangement for their lodging and other facilities? _____  <input type="checkbox"/> Both _____
14.	Basic facilities for the labor:	<input type="checkbox"/> Drinking Water. Mention the details _____  <input type="checkbox"/> Sanitation. Mention the details _____  <input type="checkbox"/> Others. Mention the details _____
15.	What is the arrangement for management of construction waste and packaging material?	
16.	What is the arrangement for management of hazardous waste generated during operations such as broken panels, transformer oil,	

Sr. No.	QUESTION	RESPONSE
	etc? Provide a waste management plan for construction phase.	
17.	What is the method for cleaning solar panels?	<input type="checkbox"/> Water hose <input type="checkbox"/> Water Sprinkler <input type="checkbox"/> Robotic Cleaning <input type="checkbox"/> Dry Mopping <input type="checkbox"/> Others. Mention the details_____
18.	What is the frequency of cleaning and estimated water consumption (kilo litre /year) for this purpose?	Frequency: _____ cleaning cycles in a month Water Usage: _____ kl per cleaning cycle
19.	What is the source of water to be used for cleaning? (procurement method as well as ultimate source from where water is coming)	<input type="checkbox"/> Ground Water. Please provide copy/status of permission for ground water extraction._____ <input type="checkbox"/> Private Water Tankers. Provide source of water for tankers _____ <input type="checkbox"/> Nearby Surface Water body. Provide details _____ <input type="checkbox"/> Others. Provide details _____
20.	What is the distance of the nearest airport from the project site?	

**Mention the contact details of the Local Revenue Official/ Block Development Official-** Name, Designation, Phone Number, Email ID and Address

**Undertaking:** I hereby declare and affirm that the information furnished above is true and correct to best of my knowledge and belief and nothing material has been concealed therein.

Name: \_\_\_\_\_ Email: \_\_\_\_\_ Contact No.: \_\_\_\_\_

Date: \_\_\_\_\_

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**Note:**

- In case the project gets financing from IREDA, following documents need to be provided before first disbursement under the loan agreement
  - Environment Management Plan (Land, Water, Waste, etc)
  - Occupational Health & Safety Plan

3. Social Management and Community Health, Safety & Security Plan
  4. Grievance Redressal Plan
- In case of any queries or clarifications, please contact the Environmental & Social Safeguards Unit of IREDA at Ruchika Drall [ruchikadrall@ireda.in](mailto:ruchikadrall@ireda.in) +91 11 26717400

## **ANNEX C: RAPID ENVIRONMENTAL & SOCIAL SCREENING**

### **Annex C1: E&S Screening- Solar Rooftop**

#### **A. Borrower Information**

**Application Registration Number (ARN):**

**Loan ID:**

**Borrower:**

**Location:**

**Contact Details of Responsible Person from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

#### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
1	Total Capacity of the Project:	
2	Technology:	
3	Total Area covered(Sq. mtrs/ Acres/ Hectares):	
4	Geographical Coordinates(Lat, Long)	
5	Project Status:	
6	Associated Facilities in and outside project area	

### ENVIRONMENTAL SCREENING CHECKLIST

	SCREENING QUESTION	YES	NO	REMARKS
<b>A</b>	<b>Potential Environmental Impacts</b> Will the Project cause...			
1.	Aesthetic and potential property value impacts due to establishment of plant and ancillary facilities?			
2.	Encroachment on precious ecology resulting in loss or damage to terrestrial or aquatic habitats (e.g., wetlands, sensitive or protected areas, fish breeding grounds, flora and fauna of economic/ medicinal value) or species of conservation significance.			
3.	Encroachment on historical/cultural monuments or areas?			
4.	Noise, vibration and dust from construction activities?			
5.	Damage to the local flora and crops due to cutting of trees to avoid shading?			
6.	Damage to the soil and water resources due to improper hazardous waste management of batteries and broken panels?			
7.	Air pollution due to diesel generator or any other conventional energy source?			

### SOCIAL SCREENING CHECKLIST

Sr. No.	Probable Involuntary Resettlement Effects	YES	NO	Not Known	REMARKS
1.	Is the ownership status and current usage of land/roof to be acquired known? If yes, provide details.				
2.	Will there be involuntary land acquisition?				
3.	Will there be loss of shelter and residential land due to land acquisition if any?				
4.	Will there be loss of agricultural and other productive assets due to land acquisition if any?				
5.	Will there be losses of existing crops, trees, and fixed assets due to land acquisition if any?				
6.	Will there be change of income sources, businesses, enterprises or means of livelihood due to the project?				
8	Will people lose access to existing facilities or resources?				
9	Will the project cause any displacement of people? If yes, approximately how many?				
10	Do the displaced people belong to any of the vulnerable groups (poor, female heads of households, scheduled tribes or ethnic minorities)?				
11	Are there any aspects that may impact gender parity?				
12	Any impact on the poor, women and children, scheduled tribes or other vulnerable groups?				
13	Risks and vulnerabilities related to occupational health and safety due to physical, electrical or fire hazards during construction, installation, operation, and decommission?				
14	Risks to community health and safety due to accidental and natural causes, especially where the structural elements or components of the project are accessible to the public?				

<b>Sr. No.</b>	<b>Probable Involuntary Resettlement Effects</b>	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
15	Conflicts with respect to water use for panel cleaning?				
16	Structural risks of the building considering the present condition of the roof?				
17	Increased risk of fires or electrocution?				



### INDIGENOUS PEOPLES<sup>12</sup> IMPACT SCREENING CHECKLIST

	KEY CONCERNS (Please provide elaboration in the Remarks column)	YES	NO	Not Known	REMARKS
1	Are there socio-cultural groups present in or use the project area who identify themselves as being part of a distinct social or cultural group that may be considered as "tribes" (hill tribes, scheduled tribes, tribal peoples)?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes and tribal peoples?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target scheduled tribes and tribal people?				
8	Will the project directly or indirectly affect scheduled tribes and tribal people and their traditional socio-cultural and belief practices (e.g. child-rearing, health, education, arts, and governance)?				
9	Will the project affect the livelihood systems of scheduled tribes and tribal people (e.g., food production system, natural resource management, crafts and trade, employment status)?				

<sup>12</sup> Indigenous People = Scheduled Tribe and Tribal People

## ***Annex C2: E&S Screening- Ground Mounted Solar Power***

### **A. Borrower Information**

**Application Registration Number (ARN)**

**Loan ID**

**Borrower:**

**Location:**

**Contact Details of Responsible Person from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
<b>1</b>	Total Power Capacity of Project (MW):	
<b>2</b>	Rated Power of each Module (kW):	
<b>3</b>	Total Area covered (Acres/ Hectares):	
<b>4</b>	Previous Land Use of Project Area:	
<b>4</b>	Geographical Coordinates(Lat, Long)	
<b>5</b>	Project Status:	
<b>6</b>	Associated Infrastructure in and outside project area (like transmission line, labor camp, etc.)	

### ENVIRONMENTAL SCREENING CHECKLIST

	SCREENING QUESTION	YES	NO	REMARKS
<b>A</b>	<b>Project Siting</b> Is the Project area adjacent to or within any of the following environmentally sensitive areas? If yes, provide the distance from the site.			
1	Physical cultural/ religious heritage site			
2	Legally protected area			
3	Natural or modified habitats with significant remaining biodiversity value such as pristine forests areas or grasslands?			
4	Wetland (lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peat lands, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans.)			
5	Vulnerable marine areas (in case of floating solar)			
<b>B</b>	<b>Potential Environmental Impacts</b> Will the Project cause...			
1	Large scale change in land use pattern due to diversion of productive lands?			
2	Encroachment on precious ecology resulting in loss or damage to terrestrial or aquatic habitats (e.g., wetlands, sensitive or protected areas, fish breeding grounds, flora and fauna of economic/ medicinal value) or species of conservation significance.			
3	Aesthetic and potential property value impacts due to establishment of plant and ancillary facilities?			
4	Encroachment on historical/cultural monuments or areas?			
5	Noise, vibration and dust from construction activities?			
6	Potential soil erosion due to the project?			
7	Damage to the local flora and crops due to cutting of trees to avoid shading?			
8	Damage to the soil and water resources due to improper management of broken panels?			
9	Contamination of soil and ground water resources due to improper battery management?			
10	A significant increase in local traffic during construction?			
11	Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
12	Changes in flow regimes due to water abstraction from surface water or underground wells for panel cleaning?			

	<b>SCREENING QUESTION</b>	<b>YES</b>	<b>NO</b>	<b>REMARKS</b>
13	Pollution of soil, water bodies and aquatic ecosystems from treatment plant?			
14	Soil/ water contamination due to use of hazardous materials or disposal of broken or damaged solar cells (photovoltaic technologies contain small amounts of cadmium, selenium and arsenic) during installation, operation and decommissioning?			
15	Industrial liquid (dielectric fluids, cleaning agents, and solvents) and solid wastes (lubricating oils, compressor oils, and hydraulic fluids) generated during construction and operations likely to pollute land and water resources?			
16	Visual impacts due to reflection from solar collector arrays resulting in glint or glare?			

### SOCIAL SCREENING CHECKLIST

	Probable Social Impact	YES	NO	Not Known	REMARKS
1	Is the site for land acquisition known?				
2	Is the ownership status and current usage of land to be acquired known? If yes, provide details.				
3	Will there be involuntary land acquisition?				
4	Will there be change in land use? If yes, will it have an adverse impact on social and economic activities?				
5	Are there any issues in existing ROW?				
6	Will there be loss of shelter and residential land due to land acquisition?				
7	Will there be loss of agricultural and other productive assets due to land acquisition?				
8	Will there be losses of existing crops, trees, and fixed assets due to land acquisition?				
9	Will there be loss of income sources, businesses, enterprises or means of livelihood due to land acquisition?				
10	Will people lose access to natural resources, communal facilities or state facilities and resources?				
11	Will the project cause any displacement of people? If yes, approximately how many?				
12	Do the displaced people belong to any of the vulnerable groups (poor, female heads of households, scheduled tribes or tribal people)?				
13	Are there any aspects that may negatively impact gender parity?				
14	Any negative impact on the poor, women and children, scheduled tribes or other vulnerable groups?				
15	Social conflicts between local communities and migrant workers/camp followers?				
16	Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during				

	Probable Social Impact	YES	NO	Not Known	REMARKS
	construction, installation, operation, and decommission?				
17	<p>Risks to community health and safety due to:</p> <p>a) The transport, storage, and use and/or disposal of materials and wastes such as explosives, fuel and other chemicals during construction, and operation?</p> <p>b) Both accidental and natural causes, especially where the structural elements or components of the project are accessible to the public?</p>				

### INDIGENOUS PEOPLES<sup>13</sup> IMPACT SCREENING CHECKLIST

	<b>KEY CONCERNS (Please provide elaboration in the Remarks column)</b>	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
1	Are there socio-cultural groups present in or use the project area who identify themselves as being part of a distinct social or cultural group that may be considered as "tribes" (hill tribes, scheduled tribes, tribal peoples)?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes and tribal peoples?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target scheduled tribes and tribal people?				
8	Will the project directly or indirectly affect scheduled tribes and tribal people and their traditional socio-cultural and belief practices (e.g. child-rearing, health, education, arts, and governance)?				
9	Will the project affect the livelihood systems of scheduled tribes and tribal people (e.g., food production system, natural resource management, crafts and trade, employment status)?				

<sup>13</sup> Indigenous People = Scheduled Tribe and Tribal People

## ***Annex C3: E&S Screening- Wind Power***

### **A. Borrower Information**

**Application Registration Number (ARN)**

**Loan ID:**

**Borrower:**

**Location:**

**Contact Details of Responsible Person from Borrower for Environmental & Social Issues:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
1	Total Power Capacity of Project (MW):	
2	Rated Power of each Turbine (MW):	
3	Total Area covered (Acres/ Hectares):	
4	Previous Land Use of Project Area:	
5	Geographical Coordinates(Lat, Long)	
6	Project Status:	
7	Associated Infrastructure in and outside project area (like transmission line, labor camp, etc.)	



### ENVIRONMENTAL SCREENING CHECKLIST

	QUESTION	RESPONSE
<b>A</b>	<b>Project Siting</b> Is the Project area adjacent to or within any of the following Environmentally Sensitive Areas? If yes, provide the distance from the site.	
1.	Physical Cultural/ Religious Heritage Site	
2.	Legally Protected Area	
3.	Natural or Modified Habitats with significant remaining biodiversity value such as pristine forests areas or grasslands?	
4.	Wetland (Lakes and Rivers, Underground Aquifers, Swamps and Marshes, Wet Grasslands, Peat Lands, Oases, Estuaries, Deltas and Tidal Flats, Mangroves and other Coastal Areas, Coral Reefs, and all Human-Made Sites Such as Fish Ponds, Rice Paddies, Reservoirs And Salt Pans.)	
5.	Vulnerable Marine Areas (in case of Floating Solar)	
6	Airport (or migratory route of avian species)	
<b>B</b>	<b>Potential Environmental Impacts</b> Will the Project cause...	
1	Large scale change in land use pattern especially due to diversion of productive lands?	
2	Encroachment on precious ecology resulting in loss or damage to terrestrial or aquatic habitats (e.g., wetlands, sensitive or protected areas, fish breeding grounds, flora and fauna of economic/ medicinal value) or species of conservation significance?	
3	Aesthetic and potential property value impacts due to establishment of plant and ancillary facilities?	
4	Encroachment on historical/cultural monuments or areas?	
5	Noise, vibration and dust from construction activities?	
6	Noise disturbance during operation due to the proximity of settlements or other features?	
7	Potential soil erosion due to the project?	
8	A significant increase in local traffic during construction?	
9	Large population influx during subproject construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation	

	QUESTION	RESPONSE
	systems)?	
10	Alteration of surface water flows by towers, roads or other facilities, resulting in erosion and stream sedimentation?	
11	Industrial liquid (dielectric fluids, cleaning agents, and solvents) and solid wastes (lubricating oils, compressor oils, and hydraulic fluids) generated during construction and operations likely to pollute land and water resources?	
12	A threat to bird or bat life due to collision with turbine and tower?	
13	Aviation or navigation hazards from turbines?	
14	Increased access to protected areas due to roads and transmission line corridor?	
15	Shadow flicker in nearby settlements or at other important local sites?	

### SOCIAL SCREENING CHECKLIST

	Probable Social Impacts	YES	NO	Not Known	REMARKS
1	Is the site for land acquisition known?				
2	Is the ownership status and current usage of land to be acquired known? If yes, please provide details.				
3	Will there be land acquisition?				
4	Will there be change in land use? If yes, will it have an adverse impact on social and economic activities?				
5	Are there any issues in the existing Right of Way (ROW)?				
6	Will there be loss of shelter and residential land due to land acquisition?				
7	Will there be loss of agricultural and other productive assets due to land acquisition?				
8	Will there be losses of crops, trees, and fixed assets due to land acquisition?				
9	Will there be loss of income sources, businesses, enterprises or means of livelihood due to land acquisition?				
10	Will people lose access to natural resources, communal facilities or state facilities and resources?				

	<b>Probable Social Impacts</b>	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
11	Will the project cause any displacement of people? If yes, approximately how many?				
12	Do the displaced people belong to any of the vulnerable groups (poor, female heads of households, scheduled tribes or tribal people?				
13	Are there any aspects that may negatively impact gender parity?				
14	Any negative impact on the poor, women and children, scheduled tribes or other vulnerable groups?				
15	Social conflicts between local communities and migrant workers/camp followers?				
16	Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during construction, installation, operation, and decommission?				
17	Risks to community health and safety due to: a) The transport, storage, and use and/or disposal of materials and wastes such as explosives, fuel and other chemicals during construction, and operation? b) Both accidental and natural causes, especially where the structural elements or components of the project are accessible to the public?				

### INDIGENOUS PEOPLES IMPACT SCREENING CHECKLIST

	<b>KEY CONCERNS (Please provide elaboration in the Remarks column)</b>	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
1	Are there socio-cultural groups present in or use the project area who identify themselves as being part of a distinct social or cultural group that may be considered as "tribes" (hill tribes, scheduled tribes, tribal peoples)?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes and tribal peoples?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target scheduled tribes and tribal people?				
8	Will the project directly or indirectly affect scheduled tribes and tribal people and their traditional socio-cultural and belief practices (e.g. child-rearing, health, education, arts, and governance)?				
9	Will the project affect the livelihood systems of scheduled tribes and people (e.g., food production system, natural resource management, crafts and trade, employment status)?				

## ***Annex C4: E&S Screening- Biomass/Co-Gen Power***

### **A. Borrower Information**

**Application Registration Number (ARN)**

**Loan ID**

**Borrower:**

**Location:**

**Contact Details of Responsible Person from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

S.N.	Basic Project Design Data	Description
1	Rated Power Output (MW):	
2	Technology:	
3	Total Surface Area covered (Ha):	
4	Geographical Coordinates (Lat, Long)	
5	Project Status:	<input type="checkbox"/> Design <input type="checkbox"/> Construction <input type="checkbox"/> Expansion <input type="checkbox"/> Commissioning <input type="checkbox"/> Operation <input type="checkbox"/> Closure <input type="checkbox"/> Other (specify)
6	Associated Facilities in and outside project area	

### ENVIRONMENTAL SCREENING CHECKLIST

	SCREENING QUESTION	YES	NO	REMARKS
<b>A</b>	<b>Project Siting</b> Is the Project area adjacent to or within any of the following environmentally sensitive areas? If yes, provide the distance from the site.			
1	Physical Cultural/ religious heritage site?			
2	Legally protected area?			
3	Natural or modified habitats with significant remaining biodiversity value such as pristine forests areas or grasslands?			
4	Wetland (lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peat lands, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans.)?			
<b>B</b>	<b>Potential Environmental Impacts</b> Will the Project cause...			
1.	Large scale change in land use pattern especially due to diversion of productive lands by for instance cultivation of energy crops?			
2.	Encroachment on precious ecology resulting in loss or damage to terrestrial or aquatic habitats (e.g., wetlands, sensitive or protected areas, fish breeding grounds, flora and fauna of economic/ medicinal value) or species of conservation significance?			
3.	Aesthetic and potential property value impacts due to establishment of plant and ancillary facilities?			
4.	Encroachment on historical/cultural monuments or areas?			
5.	Noise, vibration and dust from construction activities?			
6.	Noise, vibration and dust during operation due to the proximity of settlements or other features?			
7.	Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
8.	Change in ground water level or flow regimes downstream of the water intake due to abstraction for cooling purposes			
9.	Pollution of water bodies and aquatic ecosystems from waste water treatment plant for boiler feed, bleed-off from cooling towers, boiler blow down and wash water and effluent from ash pond.			
10.	A significant increase in local traffic during construction?			
11.	Air emissions and air pollution harmful to human health and surrounding habitats due from the			

	<b>SCREENING QUESTION</b>	<b>YES</b>	<b>NO</b>	<b>REMARKS</b>
	biomass combustion?			
12.	Fugitive dust during transportation, unloading, storage, processing of coal and polluted run-off from coal storage			
13.	Industrial liquid (dielectric fluids, cleaning agents, and solvents) and solid wastes (lubricating oils, compressor oils, and hydraulic fluids) generated during construction and operations likely to pollute land and water resources?			
14.	Will the project cause conflict with the respect to the use and sourcing of feedstock sourcing?			

### SOCIAL SCREENING CHECKLIST

	Probable Social Impacts	YES	NO	Not Known	REMARKS
1	Is the site for land acquisition known?				
2	Is the ownership status and current usage of land to be acquired known? If yes, please provide details.				
3	Will there be land acquisition?				
4	Will there be change in land use? If yes, will it have an adverse impact on social and economic activities?				
5	Are there any issues in the existing Right of Way (ROW)?				
6	Will there be loss of shelter and residential land due to land acquisition?				
7	Will there be loss of agricultural and other productive assets due to land acquisition?				
8	Will there be losses of crops, trees, and fixed assets due to land acquisition?				
9	Will there be loss of income sources, businesses, enterprises or means of livelihood due to land acquisition?				
10	Will people lose access to natural resources, communal facilities or state facilities and resources?				
11	Will the project cause any displacement of people? If yes, approximately how many?				
12	Do the displaced people belong to any of the vulnerable groups (poor, female heads of households, scheduled tribes or tribal people)?				
13	Are there any aspects that may negatively impact gender parity?				
14	Any negative impact on the poor, women and children, scheduled tribes or other vulnerable groups?				
15	Social conflicts between local communities and migrant workers/camp followers?				
16	Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during construction, installation, operation, and decommission?				



	<b>Probable Social Impacts</b>	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
17	<p>Risks to community health and safety due to:</p> <p>c) The transport, storage, and use and/or disposal of materials and wastes such as explosives, fuel and other chemicals during construction, and operation?</p> <p>d) Both accidental and natural causes, especially where the structural elements or components of the project are accessible to the public?</p>				

### INDIGENOUS PEOPLES IMPACT SCREENING CHECKLIST

	<b>KEY CONCERNS</b> (Please provide elaboration in the Remarks column)	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
1	Are there socio-cultural groups present in or use the project area who identify themselves as being part of a distinct social or cultural group that may be considered as "tribes" (hill tribes, scheduled tribes, tribal peoples)?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes and tribal peoples?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target scheduled tribes and tribal people?				
8	Will the project directly or indirectly affect scheduled tribes and tribal people and their traditional socio-cultural and belief practices (e.g. child-rearing, health, education, arts, and governance)?				
9	Will the project affect the livelihood systems of scheduled tribes and people (e.g., food production system, natural resource management, crafts and trade, employment status)?				

## **Annex C5: E&S Screening- Mini Hydro ( $\leq 2\text{MW}$ )**

### **A. Borrower Information**

**Application Registration Number (ARN):**

**Loan ID:**

**Borrower:**

**Location:**

**Contact Details of Responsible Person from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

S.N.	Basic Project Design Data	Description
1	Rated Power Output (MW):	
2	Technology:	
3	Total Surface Area covered (Ha):	
4	Project Status:	
5	Geographical coordinates	
5	Associated Facilities in and outside project area	

### ENVIRONMENTAL SCREENING CHECKLIST

	SCREENING QUESTION	YES	NO	REMARKS
<b>A</b>	<b>Project Location</b> Is the dam and/or project facilities adjacent to or within any of the following areas? If yes, provide the distance from the site			
1.	Physical cultural/ religious heritage site?			
2.	Legally protected area/ buffer zone of protected area?			
3.	Natural or modified habitats with significant remaining biodiversity value such as pristine forests areas or grasslands?			
4.	Wetland (lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peat lands, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans.)			
5.	Unregulated river?			
6.	Already regulated river?			
7.	Unique or aesthetically valuable land or water body?			
<b>B</b>	<b>Potential Environmental Impacts</b> Will the Project cause...			
1.	Short-term construction impacts such as soil erosion, deterioration of water and air quality, noise and vibration from construction equipment?			
2.	Disturbance of large areas due to material quarrying?			
3.	Disposal of large quantities of construction spoils?			
4.	Clearing of large forested area for ancillary facilities and access road?			
5.	Impounding of a long river stretch?			
6.	Alternating high and low water flow downstream of the hydropower plant due to peaking operation?			
7.	Dewatering of a downstream river stretch? If yes, indicate the length of the dewatered river section.			
8.	Construction of permanent access road near or through forests or other natural habitats??			
9.	Creation of barriers for migratory terrestrial animals?			
10.	Loss of precious terrestrial and aquatic habitats due to reservoir impoundment and inundation, causing loss of forested areas, wildlife habitats and fish spawning / breeding grounds?			
11.	Deterioration of downstream water quality due to anoxic water from the reservoir and sediments due to soil erosion?			

	SCREENING QUESTION	YES	NO	REMARKS
12.	Significant diversion of water from one basin to another?			
13.	Significant modification of flow regime due to reservoir storage of water, affecting downstream ecosystem, people's sustenance and livelihoods?			
14.	Loss or destruction of aesthetically unique and scenic land areas or water bodies?			
15.	Proliferation of aquatic weeds in reservoir and downstream, causing problems for irrigation systems, navigation and fisheries?			
16.	Depletion of dissolved oxygen by large quantities of decaying plant material, fish mortality due to reduced dissolved oxygen content in water, algal blooms causing successive and temporary eutrophication, growth and proliferation of aquatic weeds?			
17.	Erosion of river banks and scouring of riverbed below dam?			
18.	Downstream erosion of recipient river in trans-basin diversion?			
19.	Increased flooding risk of recipient river in trans-basin diversion?			
20.	Decreased groundwater recharge of downstream areas?			
21.	Draining of downstream wetlands and riparian areas?			
22.	Decline or change in fisheries below the dam due to changed flow pattern? Destruction of fish breeding grounds, and water quality changes?			
23.	Loss of migratory fish species due to barrier imposed by the dam?			
24.	Significant disruption of river sediment transport downstream due to trapping in reservoir?			
25.	Environmental risk due to potential toxicity of sediments trapped behind the dams?			
26.	Increased saltwater intrusion in estuary and low lands due to reduced river flows?			
27.	Cumulative effects due to the existence of other hydropower projects in the same river basin?			

### SOCIAL SCREENING CHECKLIST

	Probable Social Impacts	YES	NO	Not Known	REMARKS
1	Is the site for land acquisition known?				
2	Is the ownership status and current usage of land to be acquired known? If yes, please provide details.				
3	Will there be land acquisition?				
4	Will there be change in landuse? If yes, will it have an adverse impact on social and economic activities?				
5	Are there any issues in existing Right of way (ROW)?				
6	Will there be loss of shelter and residential land due to land acquisition?				
7	Will there be loss of agricultural and other productive assets due to land acquisition?				
8	Will there be losses of existing crops, trees, and fixed assets due to land acquisition?				
9	Will there be loss of businesses or enterprises due to land acquisition?				
10	Will there be loss of income sources, businesses, enterprises and means of livelihoods due to land acquisition?				
11	Will people lose access to natural resources, communal facilities or state facilities and resources?				
12	Will the project cause any displacement of people? If yes, approximately how many?				
13	Do the displaced people belong to any of the vulnerable groups (poor, female heads of households, indigenous/ ethnic minorities)?				
14	Are there any aspects that may impact gender parity?				
15	Any negative impact on the poor, women and children, Indigenous Peoples or other vulnerable groups?				
16	Uncontrolled human migration into the area made possible by access roads and transmission lines?				
17	Social conflicts between local laborers				

	Probable Social Impacts	YES	NO	Not Known	REMARKS
	and those from outside the area?				
18	Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during construction, installation, operation, and decommission?				
19	<p>Risks to community health and safety due to:</p> <p>e) The transport, storage, and use and/or disposal of materials and wastes such as explosives, fuel and other chemicals during construction, and operation?</p> <p>f) Both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?</p>				

### INDIGENOUS PEOPLES IMPACT SCREENING CHECKLIST

	<b>KEY CONCERNS</b> <b>(Please provide elaboration in the</b> <b>Remarks column)</b>	<b>YES</b>	<b>N</b> <b>O</b>	<b>Not</b> <b>Know</b> <b>n</b>	<b>REMARKS</b>
1	Are there socio-cultural groups present in or use the subproject area who may be considered as "tribes" (hill tribes, schedules tribes, tribal peoples), " , or "indigenous communities" in the subproject area?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the subproject area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target Indigenous Peoples?				
8	Will the project directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)				
9	Will the project affect the livelihood systems of Indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status)				



## ***Annex C.6: E&S Screening- Run Of River Hydro Power***

### **A. Borrower Information**

**Application Registration Number (ARN):**

**Loan ID:**

**Borrower:**

**Location:**

**Contact Details of Responsible Person from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>S.N.</b>	<b>Basic Project Design Data</b>	<b>Description</b>
1	Rated Power Output (MW):	
2	Rated Power of each Turbine (MW):	
3	Total Surface Area covered (Ha):	
4	Project Status:	
5	Geographical coordinates	
5	Associated Facilities in and outside project area	

### ENVIRONMENTAL SCREENING CHECKLIST

	SCREENING QUESTION	YES	NO	REMARKS
<b>A</b>	<b>Project Location</b> Is the project adjacent to or within any of the following areas? If yes, provide the distance from the site			
1.	Physical cultural/ religious heritage site?			
2.	Legally protected area/ buffer zone of protected area?			
3.	Natural or modified habitats with significant remaining biodiversity value such as pristine forests areas or grasslands?			
4.	Wetland (lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peat lands, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans.)			
5.	Unregulated river?			
6.	Already regulated river?			
7.	Unique or aesthetically valuable land or water body?			
<b>B</b>	<b>Potential Environmental Impacts</b> Will the Project cause...			
1.	Short-term construction impacts such as soil erosion, deterioration of water and air quality, noise and vibration from construction equipment?			
2.	Disturbance of large areas due to material quarrying?			
3.	Disposal of large quantities of construction spoils?			
4.	Clearing of large forested area for ancillary facilities and access road?			
5.	Impounding of a long river stretch?			
6.	Alternating high and low water flow downstream of the hydropower plant due to peaking operation?			
7.	Dewatering of a downstream river stretch? If yes, indicate the length of the dewatered river section.			
8.	Construction of permanent access road near or through forests or other natural habitats??			
9.	Creation of barriers for migratory terrestrial animals?			
10.	Loss of precious terrestrial and aquatic habitats due to reservoir impoundment and inundation, causing loss of forested areas, wildlife habitats and fish spawning / breeding grounds?			
11.	Deterioration of downstream water quality due to anoxic water from the reservoir and sediments due to soil erosion?			
12.	Loss or destruction of aesthetically unique and scenic			

	<b>SCREENING QUESTION</b>	<b>YES</b>	<b>NO</b>	<b>REMARKS</b>
	land areas or water bodies?			
13.	Decreased groundwater recharge of downstream areas?			
14.	Draining of downstream wetlands and riparian areas?			
15.	Increased saltwater intrusion in estuary and low lands due to reduced river flows?			
16.	Cumulative effects due to the existence of other hydropower projects in the same river basin?			

### SOCIAL SCREENING CHECKLIST

	Probable Social Impacts	YES	NO	Not Known	REMARKS
1	Is the site for land acquisition known?				
2	Is the ownership status and current usage of land to be acquired known? If yes, please provide details.				
3	Will there be land acquisition?				
4	Will there be change in landuse? If yes, will it have an adverse impact on social and economic activities?				
5	Are there any issues in existing Right of way (ROW)?				
6	Will there be loss of shelter and residential land due to land acquisition?				
7	Will there be loss of agricultural and other productive assets due to land acquisition?				
8	Will there be losses of existing crops, trees, and fixed assets due to land acquisition?				
9	Will there be loss of businesses or enterprises due to land acquisition?				
10	Will there be loss of income sources, businesses, enterprises and means of livelihoods due to land acquisition?				
11	Will people lose access to natural resources, communal facilities or state facilities and resources?				
12	Will the project cause any displacement of people? If yes, approximately how many?				
13	Do the displaced people belong to any of the vulnerable groups (poor, female heads of households, indigenous/ ethnic minorities)?				
14	Are there any aspects that may impact gender parity?				
15	Any negative impact on the poor, women and children, Indigenous Peoples or other vulnerable groups?				
16	Uncontrolled human migration into the area made possible by access roads and transmission lines?				
17	Social conflicts between local laborers				

	Probable Social Impacts	YES	NO	Not Known	REMARKS
	and those from outside the area?				
18	Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during construction, installation, operation, and decommission?				
19	<p>Risks to community health and safety due to:</p> <p>a) The transport, storage, and use and/or disposal of materials and wastes such as explosives, fuel and other chemicals during construction, and operation?</p> <p>b) Both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?</p>				

### INDIGENOUS PEOPLES IMPACT SCREENING CHECKLIST

	<b>KEY CONCERNS</b> <b>(Please provide elaboration in the</b> <b>Remarks column)</b>	<b>YES</b>	<b>N</b> <b>O</b>	<b>Not</b> <b>Know</b> <b>n</b>	<b>REMARKS</b>
1	Are there socio-cultural groups present in or use the subproject area who may be considered as "tribes" (hill tribes, schedules tribes, tribal peoples), " , or "indigenous communities" in the subproject area?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the subproject area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target Indigenous Peoples?				
8	Will the project directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)				
9	Will the project affect the livelihood systems of Indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status)				

## ***Annex C.7: E&S Screening- Reservoir Based Hydro Power***

### **A. Borrower Information**

**Application Registration Number (ARN):**

**Loan ID:**

**Borrower:**

**Location:**

**Contact Details of Responsible Person from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

S.N.	Basic Project Design Data	Description
1	Rated Power Output (MW):	
2	Rated Power of each Turbine (MW):	
3	Total Surface Area covered (Ha):	
4	Project Status:	
5	Geographical coordinates	
6	Associated Facilities in and outside project area	

### ENVIRONMENTAL SCREENING CHECKLIST

	SCREENING QUESTION	YES	NO	REMARKS
<b>A</b>	<b>Project Location</b> Is the project adjacent to or within any of the following areas? If yes, provide the distance from the site			
1.	Physical cultural/ religious heritage site?			
2.	Legally protected area/ buffer zone of protected area?			
3.	Natural or modified habitats with significant remaining biodiversity value such as pristine forests areas or grasslands?			
4.	Wetland (lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peat lands, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans.)			
5.	Unregulated river?			
6.	Already regulated river?			
7.	Unique or aesthetically valuable land or water body?			
<b>B</b>	<b>Potential Environmental Impacts</b> Will the Project cause...			
1.	Short-term construction impacts such as soil erosion, deterioration of water and air quality, noise and vibration from construction equipment?			
2.	Disturbance of large areas due to material quarrying?			
3.	Disposal of large quantities of construction spoils?			
4.	Clearing of large forested area for ancillary facilities and access road?			
5.	Large population influx during subproject construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
6.	Impounding of a long river stretch?			
7.	Alternating high and low water flow downstream of the hydropower plant due to peaking operation?			
8.	Dewatering of a downstream river stretch? If yes, indicate the length of the dewatered river section.			
9.	Construction of permanent access road near or through forests or other natural habitats??			
10.	Creation of barriers for migratory terrestrial animals?			
11.	Loss of precious terrestrial and aquatic habitats due to reservoir impoundment and inundation, causing loss of forested areas, wildlife habitats and fish spawning / breeding grounds?			



	SCREENING QUESTION	YES	NO	REMARKS
12.	Deterioration of downstream water quality due to anoxic water from the reservoir and sediments due to soil erosion?			
13.	Loss or destruction of aesthetically unique and scenic land areas or water bodies?			
14.	Decreased groundwater recharge of downstream areas?			
15.	Draining of downstream wetlands and riparian areas?			
16.	Increased saltwater intrusion in estuary and low lands due to reduced river flows?			
17.	Cumulative effects due to the existence of other hydropower projects in the same river basin?			
18.	Significant diversion of water from one basin to another?			
19.	Significant modification of annual flood cycle affecting downstream ecosystem, people's sustenance and livelihoods?			
20.	Proliferation of aquatic weeds in reservoir and downstream impairing dam discharge, irrigation systems, navigation and fisheries, and increasing water loss through transpiration?			
21.	Scouring of riverbed below dam?			
22.	Downstream erosion of recipient river in trans-basin diversion?			
23.	Increased flooding risk of recipient river in trans-basin diversion?			
24.	Decline or change in fisheries below the dam due to reduced peak flows and floods, submersion of river stretches and resultant destruction of fish breeding and nursery grounds, and water quality changes?			
25.	Loss of migratory fish species due to barrier imposed by the dam?			
26.	Formation of sediment deposits at reservoir entrance, creating backwater effect and flooding and waterlogging upstream?			
27.	Significant disruption of river sediment transport downstream due to trapping in reservoir?			
28.	Environmental risk due to potential toxicity of sediments trapped behind the dams?			
29.	Increased saltwater intrusion in estuary and low lands due to reduced river flows?			
30.	Significant induced seismicity due to large reservoir size and potential environmental hazard from catastrophic failure of the dam?			
31.	Cumulative effects due to its role as part of a cascade of dams/ reservoirs?			
32.	Depletion of dissolved oxygen by large quantities of			

	SCREENING QUESTION	YES	NO	REMARKS
	decaying plant material, fish mortality due to reduced dissolved oxygen content in water, algal blooms causing successive and temporary eutrophication, growth and proliferation of aquatic weeds?			

### SOCIAL SCREENING CHECKLIST

	Probable Social Impacts	YES	NO	Not Known	REMARKS
1	Is the site for land acquisition known?				
2	Is the ownership status and current usage of land to be acquired known? If yes, please provide details.				
3	Will there be land acquisition?				
4	Will there be change in landuse? If yes, will it have an adverse impact on social and economic activities?				
5	Are there any issues in existing Right of way (ROW)?				
6	Will there be loss of shelter and residential land due to land acquisition?				
7	Will there be loss of agricultural and other productive assets due to land acquisition?				
8	Will there be losses of existing crops, trees, and fixed assets due to land acquisition?				
9	Will there be loss of businesses or enterprises due to land acquisition?				
10	Will there be loss of income sources, businesses, enterprises and means of livelihoods due to land acquisition?				
11	Will people lose access to natural resources, communal facilities or state facilities and resources?				
12	Will the project cause any displacement of people? If yes, approximately how many?				
13	Do the displaced people belong to any of the vulnerable groups (poor, female heads of households, indigenous/ ethnic minorities)?				
14	Are there any aspects that may impact gender parity?				
15	Any negative impact on the poor, women and children, Indigenous Peoples or other vulnerable groups?				
16	Uncontrolled human migration into the area made possible by access roads and transmission lines?				
17	Social conflicts between local laborers				

	Probable Social Impacts	YES	NO	Not Known	REMARKS
	and those from outside the area?				
18	Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during construction, installation, operation, and decommission?				
19	<p>Risks to community health and safety due to:</p> <p>c) The transport, storage, and use and/or disposal of materials and wastes such as explosives, fuel and other chemicals during construction, and operation?</p> <p>d) Both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?</p>				

### INDIGENOUS PEOPLES IMPACT SCREENING CHECKLIST

	<b>KEY CONCERNS</b> <b>(Please provide elaboration in the</b> <b>Remarks column)</b>	<b>YES</b>	<b>N</b> <b>O</b>	<b>Not</b> <b>Know</b> <b>n</b>	<b>REMARKS</b>
1	Are there socio-cultural groups present in or use the subproject area who may be considered as "tribes" (hill tribes, schedules tribes, tribal peoples), " , or "indigenous communities" in the subproject area?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the subproject area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target Indigenous Peoples?				
8	Will the project directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)				
9	Will the project affect the livelihood systems of Indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status)				

## **Annex C8: E&S Screening- Micro/Mini Grid**

### **A. Borrower Information**

**Application Registration Number (ARN)**

**Loan ID**

**Borrower:**

**Location:**

**Contact Details of Responsible Person from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
<b>1</b>	Total Capacity of the Project:	
<b>2</b>	Technology:	
<b>3</b>	Total Area covered(Sq. mtrs/ Acres/ Hectares):	
<b>4</b>	Geographical Coordinates(Lat, Long)	
<b>5</b>	Project Status:	
<b>6</b>	Associated Facilities in and outside project area	

### ENVIRONMENTAL SCREENING CHECKLIST

	SCREENING QUESTION	YES	NO	REMARKS
<b>A</b>	<b>Potential Environmental Impacts</b> Will the Project cause...			
1.	Aesthetic and potential property value impacts due to establishment of plant and ancillary facilities?			
2.	Encroachment on precious ecology resulting in loss or damage to terrestrial or aquatic habitats (e.g., wetlands, sensitive or protected areas, fish breeding grounds, flora and fauna of economic/ medicinal value) or species of conservation significance.			
3.	Encroachment on historical/cultural monuments or areas?			
4.	Noise, vibration and dust from construction activities?			
5.	Damage to the local flora and crops due to cutting of trees to avoid shading?			
6.	Damage to the soil and water resources due to improper hazardous waste management of batteries and broken panels?			
7.	Air pollution due to diesel generator or any other conventional energy source?			

### SOCIAL SCREENING CHECKLIST

Sr. No.	Probable Involuntary Resettlement Effects	YES	NO	Not Known	REMARKS
1.	Is the ownership status and current usage of land/roof to be acquired known? If yes, provide details.				
2.	Will there be involuntary land acquisition?				
3.	Will there be loss of shelter and residential land due to land acquisition if any?				
4.	Will there be loss of agricultural and other productive assets due to land acquisition if any?				
5.	Will there be losses of existing crops, trees, and fixed assets due to land acquisition if any?				
6.	Will there be change of income sources, businesses, enterprises or means of livelihood due to the project?				
8	Will people lose access to existing facilities or resources?				
9	Will the project cause any displacement of people? If yes, approximately how many?				
10	Do the displaced people belong to any of the vulnerable groups (poor, female heads of households, scheduled tribes or ethnic minorities)?				
11	Are there any aspects that may impact gender parity?				
12	Any impact on the poor, women and children, scheduled tribes or other vulnerable groups?				
13	Risks and vulnerabilities related to occupational health and safety due to physical, electrical or fire hazards during construction, installation, operation, and decommission?				
14	Risks to community health and safety due to accidental and natural causes, especially where the structural elements or components of the project are accessible to the public?				



<b>Sr. No.</b>	<b>Probable Involuntary Resettlement Effects</b>	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
15	Conflicts with respect to water use for panel cleaning?				
16	Structural risks of the building considering the present condition of the roof?				
17	Increased risk of fires or electrocution?				

### INDIGENOUS PEOPLES IMPACT SCREENING CHECKLIST

	<b>KEY CONCERNS</b> <b>(Please provide elaboration in the</b> <b>Remarks column)</b>	<b>YES</b>	<b>NO</b>	<b>Not</b> <b>Known</b>	<b>REMARKS</b>
1	Are there socio-cultural groups present in or use the project area who identify themselves as being part of a distinct social or cultural group that may be considered as "tribes" (hill tribes, scheduled tribes, tribal peoples)?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes and tribal peoples?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target scheduled tribes and tribal people?				
8	Will the project directly or indirectly affect scheduled tribes and tribal people and their traditional socio-cultural and belief practices (e.g. child-rearing, health, education, arts, and governance)?				
9	Will the project affect the livelihood systems of scheduled tribes and tribal people (e.g., food production system, natural resource management, crafts and trade, employment status)?				

## ***Annex C9: E&S Screening- Solar Home Lighting System***

### **A. Borrower Information**

**Application Registration Number (ARN)**

**Loan ID**

**Borrower:**

**Location:**

**Contact Details of Responsible Person from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
1	Total Capacity of the Project:	
2	Technology:	
3	Total Area covered(Sq. mtrs/ Acres/ Hectares):	
4	Geographical Coordinates(Lat, Long)	
5	Project Status:	
6	Associated Facilities in and outside project area	

### ENVIRONMENTAL SCREENING CHECKLIST

	SCREENING QUESTION	YES	NO	REMARKS
<b>A</b>	<b>Potential Environmental Impacts</b> Will the Project cause...			
1.	Aesthetic and potential property value impacts due to establishment of plant and ancillary facilities?			
2.	Noise and vibration due to installation activities?			
3.	Damage to the local flora and crops due to cutting of trees to avoid shading?			
4.	Damage to the soil and water resources due to improper management of broken panels?			
5.	Contamination of soil and ground water resources due to improper battery management?			
6.	Air pollution due to diesel generator (used as backup) or any other conventional energy source?			

### SOCIAL SCREENING CHECKLIST

Sr. No.	Probable Involuntary Resettlement Effects	YES	NO	Not Known	REMARKS
1.	Is the ownership status and current usage of roof to be acquired known? If yes, provide details.				
2.	Will there be losses of existing trees and fixed assets due to space utilization?				
3.	Will there be change of income sources, businesses, enterprises or means of livelihood due to the project?				
4.	Will people lose access to existing facilities or resources?				
5.	Risks and vulnerabilities related to health and safety of occupants due to physical, electrical or fire hazards during installation and operation?				
6.	Structural risks of the building considering the present condition of the roof?				
7.	Increased risk of fires or electrocution?				

### INDIGENOUS PEOPLES IMPACT SCREENING CHECKLIST

	<b>KEY CONCERNS</b> <b>(Please provide elaboration in the</b> <b>Remarks column)</b>	<b>YES</b>	<b>NO</b>	<b>Not</b> <b>Known</b>	<b>REMARKS</b>
1	Are there socio-cultural groups present in or use the project area who identify themselves as being part of a distinct social or cultural group that may be considered as "tribes" (hill tribes, scheduled tribes, tribal peoples)?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes and tribal peoples?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target scheduled tribes and tribal people?				
8	Will the project directly or indirectly affect scheduled tribes and tribal people and their traditional socio-cultural and belief practices (e.g. child-rearing, health, education, arts, and governance)?				
9	Will the project affect the livelihood systems of scheduled tribes and tribal people (e.g., food production system, natural resource management, crafts and trade, employment status)?				

## ***Annex C10: E&S Screening- Solar Irrigation Pumps***

### **A. Borrower Information**

**Application Registration Number (ARN):**

**Loan ID:**

**Borrower:**

**Location:**

**Contact Details of Responsible Person for Environmental & Social Issues from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr.</b>	<b>Parameter</b>	<b>Description</b>
1	Total Power Capacity of Project (HP/kW):	
2	Type of connection	
3	PV Technology:	
4	Total Area covered through solar panels (Sq. mtrs/ Acres/ Hectares):	
5	Geographical coordinates(Lat, Long)	
6	Project Status:	
7	Associated Infrastructure(pump capacity and other details)	

### ENVIRONMENTAL SCREENING CHECKLIST

	SCREENING QUESTION	YES	NO	REMARKS
<b>A</b>	<b>Potential Environmental Impacts</b> Will the Project cause:			
1.	Aesthetic and potential property value impacts due to establishment of project and ancillary facilities?			
2.	Wastage of water resources due to unwarranted usage in any form?			
3.	Lowering of the ground water level in the area due to excessive pumping?			
4.	Impact on the local ecology and bio-diversity due to extraction and usage of water			
5.	Damage to the local flora and crops due to cutting of trees to avoid shading?			
6.	Damage to the soil and water resources due to improper management of hazardous waste such as management of batteries and broken panels?			
7.	Air pollution due to diesel generator or any other conventional energy source?			
8.	Increased risk for depletion of groundwater resources and lower groundwater levels?			

### SOCIAL SCREENING CHECKLIST

	Probable Social Impacts	YES	NO	Not Known	REMARKS
1.	Is the site for project implementation known?				
2.	Will there be losses of existing crops, trees, and fixed assets due to project activity if any?				
3.	Will there be change of income sources, businesses, enterprises or means of livelihood due to the project?				
4.	Are there any aspects that may impact gender parity?				
5.	Any impact on the poor, women and children, scheduled tribes or other vulnerable groups?				
6.	Risks and vulnerabilities related to health and safety due to physical, electrical or fire hazards from the project?				
7.	Conflicts with respect to water usage due to additional pumping?				



### INDIGENOUS PEOPLES IMPACT SCREENING CHECKLIST

	<b>KEY CONCERNS (Please provide elaboration in the Remarks column)</b>	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
1	Are there socio-cultural groups present in or use the project area who identify themselves as being part of a distinct social or cultural group that may be considered as "tribes" (hill tribes, scheduled tribes, tribal peoples)?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes and tribal peoples?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target scheduled tribes and tribal people?				
8	Will the project directly or indirectly affect scheduled tribes and tribal people and their traditional socio-cultural and belief practices (e.g. child-rearing, health, education, arts, and governance)?				
9	Will the project affect the livelihood systems of scheduled tribes and tribal people (e.g., food production system, natural resource management, crafts and trade, employment status)?				

## ***Annex C11: E&S Screening- Aerogenerators & Solar Wind Hybrid***

### **A. Borrower Information**

**Application Registration Number (ARN):**

**Loan ID:**

**Borrower:**

**Location:**

**Contact Details of Responsible Person from Borrower:**

<b>Name:</b>	
<b>Designation:</b>	
<b>Address:</b>	
<b>Phone:</b>	
<b>Email:</b>	

### **B. Project Design Data**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Description</b>
1	Total Power Capacity of Project (MW):	
2	Rated Power of each Turbine (MW):	
3	Total Area covered (Acres/ Hectares):	
4	Previous Land Use of Project Area:	
5	Geographical Coordinates(Lat, Long)	
6	Project Status:	
7	Associated Infrastructure in and outside project area (like transmission line, labor camp, etc.)	

### ENVIRONMENTAL SCREENING CHECKLIST

	SCREENING QUESTION	YES	NO	REMARKS
<b>A</b>	<b>Project Siting</b> Is the Project area adjacent to or within any of the following environmentally sensitive areas? If yes, provide the distance from the site.			
1	Physical Cultural/ religious heritage site			
2	Legally protected area			
3	Natural or modified habitats with significant remaining biodiversity value such as pristine forests areas or grasslands?			
4	Wetland (lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peat lands, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans.)			
5	Vulnerable marine areas			
6	Airport (or migratory route of avian species)			
<b>B</b>	<b>Potential Environmental Impacts</b> Will the Project cause...			
1	Aesthetic and potential property value impacts due to establishment of plant and ancillary facilities?			
2	Encroachment on historical/cultural monuments or areas?			
3	Noise, vibration and dust from construction activities?			
4	Noise disturbance during operation due to the proximity of settlements or other features?			
5	A threat to bird or bat life due to collision with turbine and tower?			
6	Aviation or navigation hazards from turbines?			
7	Shadow flicker in nearby settlements or at other important local sites?			

### SOCIAL SCREENING CHECKLIST

	<b>Probable Involuntary Resettlement Impacts</b>	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
1	Is the site for land acquisition known?				
2	Is the ownership status and current usage of land to be acquired known? If yes, please provide details.				
3	Will there be land acquisition?				
4	Will there be change in land use? If yes, will it have an adverse impact on social and economic activities?				
5	Are there any issues in the existing Right of Way (ROW)?				
6	Will there be loss of shelter and residential land due to land acquisition?				
7	Will there be loss of agricultural and other productive assets due to land acquisition?				
8	Will there be losses of crops, trees, and fixed assets due to land acquisition?				
9	Will there be loss of income sources, businesses, enterprises or means of livelihood due to land acquisition?				
10	Will people lose access to natural resources, communal facilities or state facilities and resources?				
11	Will the project cause any displacement of people? If yes, approximately how many?				
12	Do the displaced people belong to any of the vulnerable groups (poor, female heads of households, scheduled tribes or tribal people)?				
13	Are there any aspects that may negatively impact gender parity?				
14	Any negative impact on the poor, women and children, scheduled tribes or other vulnerable groups?				
16	Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during construction, installation, operation, and decommission?				
17	Risks to community health and safety due to: g) The transport, storage, and use				

	<b>Probable Involuntary Resettlement Impacts</b>	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
	and/or disposal of materials and wastes such as explosives, fuel and other chemicals during construction, and operation? h) Both accidental and natural causes, especially where the structural elements or components of the project are accessible to the public?				

### INDIGENOUS PEOPLES IMPACT SCREENING CHECKLIST

	<b>KEY CONCERNS (Please provide elaboration in the Remarks column)</b>	<b>YES</b>	<b>NO</b>	<b>Not Known</b>	<b>REMARKS</b>
1	Are there socio-cultural groups present in or use the project area who identify themselves as being part of a distinct social or cultural group that may be considered as "tribes" (hill tribes, scheduled tribes, tribal peoples)?				
2	Are there national or local laws or policies or bodies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes and tribal peoples?				
3	Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
4	Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
5	Do such groups speak a distinct language or dialect?				
6	Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
7	Will the project directly or indirectly benefit or target scheduled tribes and tribal people?				
8	Will the project directly or indirectly affect scheduled tribes and tribal people and their traditional socio-cultural and belief practices (e.g. child-rearing, health, education, arts, and governance)?				
9	Will the project affect the livelihood systems of scheduled tribes and people (e.g., food production system, natural resource management, crafts and trade, employment status)?				

## ANNEX D: PROJECT CATEGORIZATION FORMS

### ENVIRONMENTAL CATEGORIZATION FORM

**A. Instructions**

The project categorization is to be carried out on the basis of the environment screening of the project, which is to be recommended by ESSU head and accepted by the respective sector head.

The classification of a project is a continuous process. If there is a change in the project components or/and site that may result in category change, the concerned unit must submit a new form and request for re-categorization, and endorsement by ESSU. The old form is attached for reference.

**B. Project Data**

Borrower:	Financing Amount:
Technology:	Address/Contact:

**C. Subject**

<input checked="" type="checkbox"/> Environment	<input type="checkbox"/> Social	<input type="checkbox"/> Indigenous (Tribal) People
---	---------------------------------	---

**D. Categorization**

☐ New      ☐ Re-categorization – Previous Category

<input type="checkbox"/> Category A	<input type="checkbox"/> Category B	<input type="checkbox"/> Category C
-------------------------------------	-------------------------------------	-------------------------------------

**E. Basis for Categorization/ Recategorization** (pls. attach documents):

Checklist and Type of Check List: \_\_\_\_\_

Project and/or Site Description: \_\_\_\_\_

Other (e.g., due diligence): \_\_\_\_\_

**F. Comments**
**G. Approval**
**Endorsed & recommended by:**

Head, ESSU

Date :

(Signature)

**Accepted by:**

Technical team leader

Date:

(Signature)

**SOCIAL CATEGORIZATION FORM****A. Instructions**

The project categorization is to be carried out on the basis of the social screening of the project, which is to be recommended by ESSU head and accepted by the respective sector head.

The classification of a project is a continuous process. If there is a change in the project components or/and site that may result in category change, the concerned unit must submit a new form and request for re-categorization, and endorsement by ESSU. The old form is attached for reference.

**B. Project Data**

Borrower:	Financing Amount:
Technology:	Address/Contact:

**C. Subject**

<input type="checkbox"/> Environment	<input checked="" type="checkbox"/> Social	<input type="checkbox"/> Indigenous (Tribal) People
--------------------------------------	--	---

**D. Categorization**

☐ New      ☐ Re-categorization – Previous Category

<input type="checkbox"/> Category A	<input type="checkbox"/> Category B	<input type="checkbox"/> Category C
-------------------------------------	-------------------------------------	-------------------------------------

**E. Basis for Categorization/ Recategorization** (pls. attach documents):

Checklist and Type of Check List: \_\_\_\_\_

Project and/or Site Description: \_\_\_\_\_

Other (e.g., due diligence): \_\_\_\_\_

**F. Comments****G. Approval****Endorsed & recommended by:**

Head, ESSU

Date :

(Signature)

**Accepted by:**

Technical team leader

Date:

(Signature)



## INDIGENOUS PEOPLE CATEGORIZATION FORM

### A. Instructions

The project categorization is to be carried out on the basis of the indigenous people screening of the project, which is to be recommended by ESSU head and accepted by the respective sector head.

The classification of a project is a continuous process. If there is a change in the project components or/and site that may result in category change, the concerned unit must submit a new form and request for re-categorization, and endorsement by ESSU. The old form is attached for reference.

### B. Project Data

Borrower:	Financing Amount:
Technology:	Address/Contact:

### C. Subject

<input type="checkbox"/> Environment	<input type="checkbox"/> Social	<input checked="" type="checkbox"/> Indigenous (Tribal) People
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### D. Categorization

☐ New      ☐ Re-categorization – Previous Category

<input type="checkbox"/> Category A	<input type="checkbox"/> Category B	<input type="checkbox"/> Category C
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### E. Basis for Categorization/ Recategorization (pls. attach documents):

Checklist and Type of Check List: \_\_\_\_\_  
 Project and/or Site Description: \_\_\_\_\_  
 Other (e.g., due diligence): \_\_\_\_\_

### F. Comments

### G. Approval

#### Endorsed & recommended by:

Head, ESSU

Date :

(Signature)

#### Accepted by:

Technical team leader

Date:

(Signature)

## **ANNEX E: GENERAL LOAN COVENANTS**

- a) Borrower shall provide all information related to Environmental and Social Management aspects to IREDA.
- b) Borrower shall agree to fully comply with all applicable national Environmental, Occupational Health and Safety, Social Laws and Regulations and Core Labor Standards during construction, operation and decommissioning.
- c) Borrower shall develop and submit the following plans to IREDA within one month of signing loan agreement:
  - i. Environment Management Plan (Land, Water, Waste, etc)
  - ii. Occupational Health & Safety Plan
  - iii. Social Management and Community Health, Safety & Security Plan
  - iv. Grievance Redressal Plan
- d) Borrower shall conduct a detailed Environmental & Social Impact Assessment of the project if required.
- e) Maintain and abide by the Environmental Clearance from Ministry of Environment and Forest, GOI or the State Pollution control board, air and water consents (to establish and operate), hazardous waste authorization, if applicable.
- f) Provide a copy of the various certifications of the borrower and the contractors such as ISO (International Organization for Standardization), OHSAS (Operational Health & Safety Assessment Series), etc, if available.
- g) Provide response to periodic information requests on Environmental & Social compliance and performance by IREDA.
- h) Air, Water and Soil
  - i. Use (hazardous) chemicals with proper safeguards, store and dispose them properly, so as not to contaminate air, water and soil.
  - ii. Prevent any form of land erosion or degradation to the extent possible.
  - iii. Have proper storage facility for material (like transformer oil, batteries, etc), so as not to percolate to ground. Also have a spill prevention and response plan to control any inadvertent leakage or spillage.
  - iv. Restrict the construction activity to the daytime so as not to create noise during night, if project site is close to habitation.
  - v. Prevent any form of disturbance to the heritage sites, protected areas, national parks, wildlife sanctuaries, community reserves, estuaries, mangroves or any other biodiversity rich or biologically sensitive areas.
- i) Waste
  - i. Reduce the amount of waste by improving the process or recycling.
  - ii. Have and implement waste management plan with responsibilities allocated to officials.
  - iii. Take precautions in waste disposal, such as not dumping liquid or solid waste in public places and water bodies.
- j) Labor
  - iv. Ensure the health & safety of employees, labors and neighbors.
  - v. Not employ children below 14 years of age, as per The Child and Adolescent Labour Act of 1986. iii. Ensure emergency preparedness at the site against fire, flood or any other untoward incident.
  - vi. Provide basis amenities to temporary as well as permanent labor such as drinking water and sanitation. Special arrangements for female workers.

- vii. Prefer local labor and give employment opportunities to the locals wherever possible.
  - viii. In case of migratory labor, arrange for their accommodation and inform them about local customs and practices, so as not to affect the locals in any negative manner.
- k) Community
- i. Avoid any human resettlement or displacement due to the project to the extent possible.
  - ii. Ensure that there is no negative impact on the livelihood of the people affected directly or indirectly.
  - iii. Be gender sensitive and gender equitable during project planning, construction and operations.
  - iv. Take measures to protect the interest of the vulnerable groups such as elderly, children and women.
  - v. Ensure that there is no disturbance to the indigenous community or scheduled tribes, in existing in the region of project implementation.
  - vi. Evaluate and undertake community development measures considering the socioeconomic profile of the region.
  - vii. Posting of warning signage and information boards about public safety hazards, including risk for electrocution.
- l) Promptly notify (within a week) IREDA upon receipt of notice, of any event having a direct or potential material adverse effect on environmental, occupational health & safety, labor issues, adjacent populations or that has attracted the adverse attention of outside parties, created adverse press reports or created potential liabilities, including any Environmental or Social claim as well as any measures taken to mitigate or remedy the effects or cause of such event.

## **Sector Specific Loan Covenants**

### ***Annex E1.1: Solar Power***

- a) Have a proper water procurement plan for the lifetime of the project and submit the same to IREDA.
- b) Employ water efficient panel cleaning methods such as dry mopping, robotic cleaning, etc.
- c) Obtain permission from concerned authorities before drawing ground water and ground water should not be drawn in the areas notified under Environmental (Protection) Act, 1986 by Central Ground Water Authority for control and regulation of ground water.
- d) A rainwater harvesting facility to recharge ground water should be developed.
- e) Ensure the quality of cleaning water so as not to hamper the efficiency of panels and install treatment facility if required.
- f) Regularly monitor and keep a record of water consumption in the plant.
- g) Avoid diversion of water meant for other purposes such as drinking, domestic consumption and irrigation.
- h) In case, water for the project is being supplied through water tankers, they should have requisite license from authorities and should have signage 'Not for Drinking use'.
- i) Avoid wastage of water in any form.
- j) Minimize the disturbance and destruction of the existing vegetation cover during construction activities;
- k) Re-establish the vegetative cover at the project sites as quickly as possible after installation of the PV panels and ancillary components.
- l) If necessary, introduce soil conservation measures such as soil bunds and ditches to lead surface water away from the sites in a non-erosive and controlled manner.
- m) Manage hazardous waste such as used batteries and broken and decommissioned solar/PV panels in a safe manner using licensed waste disposal companies or enter into disposal agreements with providers or manufacturers of batteries and panels.
- n) Provide fencing of an appropriate standard around the solar energy project site to prevent access by the public.

### ***Annex E1.2: Decentralized & Solar Rooftop***

- a) The developer shall engage landowners and users early in the planning process; and acquire the necessary authorization to utilize the land for project development through for instance long term land lease agreements.
- b) Compensation shall be paid for any damages on property and loss of assets arising from the construction, operation and decommissioning of mini grid project.
- c) Physical and economic displacement shall be avoided as far as possible.
- d) The routing of transmission lines shall be done carefully, preferably following roads or exiting wayleaves in order to minimize the need for cutting down trees and crossing agricultural lands.
- e) Broken PV panels and used batteries should be delivered to a fully licensed and approved hazardous waste handling company or alternatively, returned to the provider for recycling or safe disposal.

### ***Annex E1.3: Solar Irrigation Pumps***

- a) The developer should ensure judicious use of ground water being pumped.
- b) Requisite permissions from the relevant ground water regulating authorities prevalent in the state and Centre should be taken wherever required
- c) Used batteries and damaged/decommissioned and broken solar panels shall be delivered to a fully licensed hazardous waste handling company.

### ***Annex E2: Wind Power***

- a) Have a proper transport and traffic management plan for the movement of heavy machinery such as blades.
- b) The disturbance to the area around the WTG sites should be minimal and it should be restored to the original conditions after commissioning.
- c) The footprint of O&M facilities as well as parking and vehicular circulation should be clearly defined and not allowed to spill over into other areas.
- d) The noise level at the nearby receptors should be monitored and should be within the limits prescribed by Central Pollution Control Board for the applicable area category. If the noise levels are exceeding the limits then solid noise barrier should be provided to reduce the impact.
- e) Waste material should be cleared in a timely manner and use of artificial lights should be minimized so as not to attract wildlife.
- f) General awareness about the local and migratory fauna should be provided to the staff and laborers to ensure their safety and preservation of biodiversity at the same time.
- g) The siting, spacing, design and color of the WTGs should be such that the birds are not attracted towards them or any nearby location.
- h) Additional studies and surveys should be done if location of any of the WTGs fall within the probable flight path of the migratory birds or if there is a nearby water body that may attract birds. Based on the outcome of the studies, mitigation measures should be implemented.
- i) The impact of shadow flicker should be studied if there are any receptors within 500 m of any of the WTGs and appropriate mitigation measures should be implemented based on the impact and in consultation with the receptors.
- j) When work at height is performed during construction and operation work equipment such as edge protection, guardrails and harnesses shall be used to prevent a fall from occurring.

### ***Annex E3. Small Hydro Power***

- a) Blasting, if required should be carried out with the permission of the concerned authorities and considering the safety of men and property.
- b) There should be minimum change in the natural course of river.
- c) The access roads should be safe for transportation of men and material.
- d) There should be proper Muck Disposal Plan and site, along with stabilization and restoration.
- e) The area used temporarily for the construction activities should be restored back to the original conditions to the extent possible.
- f) The minimum flow should be maintained in the downstream as per GOI requirements and to satisfy water needs and environmental protection.

- g) The impact of proposed construction on indigenous and migratory fish resources should be assessed and a Fishery Conservation and Management Plan should be prepared if required.
- h) Soil erosion and sedimentation of river water should be prevented through appropriate measures.

#### ***Annex E4. Biomass & Cogeneration Power***

- a) Conflicts with regard to sourcing and use of biomass to be used as feedstock shall be avoided.
- b) Conflicts with regard to use of water for cooling or other biomass power plant processes shall be avoided
- c) Biomass power developers shall select “state of the art” technologies that minimizes polluting air emissions.
- d) Control devices such as scrubbers, fabric filters, and electrostatic precipitators to capture air pollutants shall be installed on biomass power plants that do not comply with emission limits/guidelines.
- e) Ash and other solid/liquid waste from the project should be safely and responsibly disposed of, avoiding any negative impact on soil, water and air.

## ANNEX F: ENVIRONMENTAL & SOCIAL MONITORING REPORT

### Annex F1: E&S Monitoring Report – Solar Rooftop

#### A. Information of the borrower

<b>Name of Organization:</b>			
<b>Completed by(name):</b>			
<b>Position in organization:</b>		<b>Date:</b>	
<b>Reporting period:</b>			

#### B. Project Name and Summary Information

<b>Loan ID</b>	
<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Status</b>	
<b>Key Developments/ Changes</b>	

#### C. Environmental Compliance Issues

No.	Requirement	Status	Guidance
1.	Environmental Impact Category		<i>To be filled by IREDA</i>
2.	Environmental Permits/Consents/Clearances/NoCs/Approvals as obtained for the project		<i>Enclose supporting documentation</i>
3.	Mitigation Measures implemented as identified in the Environment Management Plan.		<i>List the mitigation measures implemented. Also state any additional measures taken</i>
4.	Environment, health and safety related Standards followed or Certifications obtained.		<i>Such as OHSAS-18001, ISO-14001 etc.</i>
5.	Solar Panel cleaning method used and frequency of cleaning.		<i>Water hose, robotic cleaning, mopping etc.</i>
6.	Visual Amenity: Visual impact from construction activities		<i>Events of materials lay down, excavation, back filling etc.</i>
7.	Source of water used for cleaning. Specify quantity per year.		
8.	If groundwater is used are the required permits in place?		<i>If Yes, provide a copy. If No, reason thereof.</i>

No.	Requirement	Status	Guidance
9.	Air Quality: Exhaust emission and dust generation		
10.	Comments on the structural stability of the rooftop		
11.	Is rainwater harvesting being done and whether the harvested water is used for utility purposes or used for recharging?		
12.	No. of panels damaged/broken during the monitoring period		
13.	Methodology for disposal of broken panels		-Return to the manufacturer - Sent to directly to recycler -Others
14.	Details of other waste generated during the monitoring period and the disposal methods used.		Waste may include broken/damaged panels, packaging materials, transformer oil, soil and debris, sanitary waste etc.
15.	Environment Management Capacity of the project and any enhancement therein?		No. of staff, qualification, experience and trainings undertaken during the period
16.	Any accidents or incidents that may lead to environmental issues such as oil leakage, groundwater contamination, dust generation etc.?		If Yes, then describe the event- the damage caused and remedial measure adopted

#### D. Social Compliance Issues

No.	Requirement	Status	Guidance
1.	Social Impact Category		To be filled by IREDA
2.	Any open issues with respect to land procurement/lease?		Pending payments, approvals, clearances, local discontent etc.
3.	Status of the implementation of the Resettlement and Rehabilitation Plan if applicable?		No. of households rehabilitated and pending, compensation agreed and given
4.	Occupational Health and Safety measures implemented?		Providing personal protective equipment, on-site medical facilities, health and safety trainings etc.



No.	Requirement	Status	Guidance
5.	Local employment generation		<i>Number of locally employed-staff actual figure and percentage</i>
6.	Has a Grievance Redressal Mechanism been established and how has it been publicly disclosed?		<i>Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and attach photographs of the same.</i>
7.	Grievances (internal or external) raised and respective resolution.		<i>Details of grievances and resolutions thereof.</i>
8.	CSR or any other community development activity supported and undertaken?		
9.	Any other accidents or incidents that may or have caused social issues?		<i>Labor accidents, social unrest, local-migrant labor conflicts etc.</i>
10.	Any stakeholder engagement/ meetings/ interactions/ consultations and interaction undertaken?		<i>Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.</i>

### E. Indigenous People Safeguards

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		<i>To be filled by IREDA</i>
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Phone:**

**E-mail:**

## Annex F2: E&S Monitoring Report – Ground Mounted Solar Power

### A. Information of the borrower

<b>Name of Organization:</b>			
<b>Completed by(name):</b>			
<b>Position in organization:</b>		<b>Date:</b>	
<b>Reporting period:</b>			

### B. Project Name and Summary Information

<b>Loan ID</b>	
<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Status</b>	
<b>Key Developments/ Changes</b>	

### C. Environmental Compliance Issues

No.	Requirement	Status	Guidance
1.	Environmental Impact Category		<i>To be filled by IREDA</i>
2.	Environmental Permits/Consents/Clearances/NoCs/Approvals as obtained for the project		<i>Enclose supporting documentation</i>
3.	Mitigation Measures implemented as identified in the Environment Management Plan.		<i>List the mitigation measures implemented. Also state any additional measures taken</i>
4.	Environment, health and safety related Standards followed or Certifications obtained.		<i>Such as OHSAS-18001, ISO-14001 etc.</i>
5.	No. of panels damaged/broken during the monitoring period		<i>-Return to the manufacturer - Sent to directly to recycler -Others</i>
6.	Solar Panel cleaning method used and frequency of cleaning.		<i>Water hose, robotic cleaning, mopping etc.</i>
7.	Source of water used for cleaning. Specify quantity per year.		
8.	If groundwater is used are the required permits in place?		<i>If Yes, provide a copy. If No, reason thereof.</i>

No.	Requirement	Status	Guidance
9.	Is rainwater harvesting being done and whether the harvested water is used for utility purposes or used for recharging?		
10.	Details of the waste generated during the monitoring period and the disposal methods used.		<i>Waste may include broken/damaged panels, packaging materials, transformer oil, soil and debris, sanitary waste etc.</i>
11.	Environment Management Capacity of the project and any enhancement therein?		<i>No. of staff, qualification, experience and trainings undertaken during the period</i>
12.	Any accidents or incidents that may lead to environmental issues such as oil leakage, groundwater contamination, dust generation etc.?		<i>If Yes, then describe the event- the damage caused and remedial measure adopted</i>
13.	Any efforts to develop green zones in or around the project sites?		<i>Any plantations, landscaping, afforestation, green belts etc.</i>

#### D. Social Compliance Issues

No.	Requirement	Status	Guidance
1.	Social Impact Category		<i>To be filled by IREDA</i>
2.	Any open issues with respect to land procurement/lease?		<i>Pending payments, approvals, clearances, local discontent etc.</i>
3.	Status of the implementation of the Resettlement and Rehabilitation Plan if applicable?		<i>No. of households rehabilitated and pending, compensation agreed and given</i>
4.	Occupational Health and Safety measures implemented?		<i>Providing personal protective equipments, on-site medical facilities, health and safety trainings etc.</i>
5.	Local employment generation		<i>Number of locally employed-staff actual figure and percentage</i>
6.	Has a Grievance Redressal Mechanism been established and how has it been publicly disclosed?		<i>Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and</i>

No.	Requirement	Status	Guidance
			<i>attach photographs of the same.</i>
7.	Grievances (internal or external) raised and respective resolution.		<i>Details of grievances and resolutions thereof.</i>
8.	CSR or any other community development activity supported and undertaken?		
9.	Any other accidents or incidents that may or have caused social issues?		<i>Labor accidents, social unrest, local-migrant labor conflicts etc.</i>
10.	Any stakeholder engagement/ meetings/ interactions/ consultations and interaction undertaken?		<i>Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.</i>

### **E. Indigenous People Safeguards**

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		<i>To be filled by IREDA</i>
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

## Annex F3: E&S Monitoring Report - Wind Power

### A. Information of the borrower

<b>Name of Organization:</b>			
<b>Completed by (name):</b>			
<b>Position in organization:</b>		<b>Date:</b>	
<b>Reporting period:</b>			

### B. Project Name and Summary Information

<b>Loan ID:</b>	
<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Stage</b>	
<b>Key Developments/ Changes</b>	

### C. Environmental Compliance Issues

No.	Requirement	Status	Guidance
1	Environmental Category		<i>To be filled by IREDA</i>
2	Environmental Permits/Consents/Clearances/NoCs/Approvals as obtained for the project		<i>Enclose supporting documentation</i>
3	Mitigation Measures implemented as identified in the Environment Management Plan.		<i>List the mitigation measures implemented. Also state any additional measures taken</i>
4	Environment, health and safety related Standards followed or Certifications obtained.		<i>Such as OHSAS-18001, ISO-14001 etc.</i>
5	Estimated number and frequency of bird and bat strikes over the reporting period?		<i>Provide the details of the incidents observed or reported within 300 m radius of the turbine</i>
6	Details of the waste generated and the disposal methods used.		<i>Waste may include excavated materials, packaging materials, etc.</i>
7	Implemented mitigation measures as per project EMP?		<i>If Yes, provide a copy. If No, reason thereof.</i>

No.	Requirement	Status	Guidance
8	Environment Management Capacity of the project (no. of staff, qualification and experience) and any enhancement therein?		<i>No. of staff, qualification, experience and trainings undertaken during the period</i>
9	Any accidents or incidents that may lead to environmental issues such as oil leakage etc.?		<i>If Yes, then describe the event- the damage caused and remedial measure adopted</i>
10	Any efforts to develop green zones in or around the project sites?		<i>Any plantations, landscaping, afforestation, green belts etc.</i>

#### D. Social Compliance Issues

No.	Requirement	Status	Guidance
1.	Social Impact Category		<i>To be filled by IREDA</i>
2.	Any open issues with respect to land procurement/lease?		<i>Pending payments, approvals, clearances, local discontent etc.</i>
3.	Status of the implementation of the Resettlement and Rehabilitation Plan if applicable?		<i>No. of households rehabilitated and pending, compensation agreed and given</i>
4.	Occupational Health and Safety measures implemented?		<i>Providing personal protective equipment, on-site medical facilities, health and safety trainings etc.</i>
5.	Local employment generation		<i>Number of locally employed-staff actual figure and percentage</i>
6.	Has a Grievance Redressal Mechanism been established and how has it been publicly disclosed?		<i>Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and attach photographs of the same.</i>
7.	Grievances (internal or external) raised and respective resolution.		<i>Details of grievances and resolutions thereof. Grievances may be related to noise, shadow flicker, bird/bat hits, distraction to traffic.</i>

No.	Requirement	Status	Guidance
8.	CSR or any other community development activity supported and undertaken?		
9.	Any other accidents or incidents that may or have caused social issues?		<i>Labor accidents, social unrest, local-migrant labor conflicts etc.</i>
10.	Any stakeholder engagement/ meetings/ interactions/ consultations and interaction undertaken?		<i>Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.</i>

### E. Indigenous People Safeguards

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		<i>To be filled by IREDA</i>
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**



## Annex F4: E&S Monitoring Report - Biomass Power

### A. Information of the borrower

<b>Name of Organization:</b>			
<b>Completed by(name):</b>			
<b>Position in organization:</b>		<b>Date:</b>	
<b>Reporting period:</b>			

### B. Project Name and Summary Information

<b>Loan ID</b>	
<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Stage</b>	
<b>Key developments or changes with respect to project design/operations/expansions</b>	

### C. Environmental Compliance Issues

Sr. No.	Requirement	Status	Guidance
1.	Environmental Category		<i>To be filled by IREDA</i>
2.	Environmental Permits/Consents/Clearances/No Cs/Approvals as obtained for the project		<i>Enclose supporting documentation</i>
3.	Mitigation Measures implemented as identified in the Environment Management Plan.		<i>List the mitigation measures implemented. Also state any additional measures taken</i>
4.	Environment, health and safety related Standards followed or Certifications obtained.		<i>Such as OHSAS-18001, ISO-14001 etc.</i>
5.	Any incidents related to failure of air pollution prevention devises (fabric filters, scrubbers, electrostatic precipitators etc.?)		<i>Report details such as type of failure, duration and probable emissions.</i>
6.	Details of the waste generated and the disposal methods used.		<i>Waste may include fly ash from boiler, effluents, slurry, used transformer oil etc.</i>
7.	Environment Management Capacity of the project (no. of staff, qualification and experience) and any enhancement therein?		<i>No. of staff, qualification , experience and trainings undertaken during the period</i>

Sr. No.	Requirement	Status	Guidance
8.	Any accidents or incidents that may lead to environmental issues such as oil leakage, accidental fires, boiler rupture, cooling tower discharge into water bodies etc.?		<i>Describe the event- the damage caused and remedial measure adopted</i>
9.	Any efforts to develop green zones in or around the project sites?		<i>No. of staff, qualification, experience and trainings undertaken during the period</i>

#### D. Social Compliance Issues

Sr. No.	Requirement	Status	Guidance
1.	Social Category		<i>To be filled by IREDA</i>
2.	Any open issues with respect to land procurement/lease?		<i>Pending payments, approvals, clearances, local discontent etc.</i>
3.	Status of the implementation of the Resettlement and Rehabilitation Plan if applicable?		<i>No. of households rehabilitated and pending, compensation agreed and given</i>
4.	Occupational Health and Safety measures implemented?		<i>Providing personal protective equipment, on-site medical facilities, health and safety trainings etc.</i>
5.	Local employment generation		<i>Number of locally employed-staff actual figure and percentage</i>
6.	Has a Grievance Mechanism been established and how has it been publicly disclosed?		<i>Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and attach photographs of the same.</i>
7.	Grievances (internal or external) raised and respective resolution.		<i>Details of grievances and resolutions thereof.</i>
8.	CSR or any other community development activity supported and undertaken?		
9.	Any other accidents or incidents that may or have caused community health/social issues?		<i>Labor accidents, social unrest, local-migrant labor conflicts etc.</i>

Sr. No.	Requirement	Status	Guidance
10.	Any stakeholder engagement and interaction undertaken?		<i>Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.</i>

### E. Indigenous People Safeguards

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		<i>To be filled by IREDA</i>
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

## Annex F5: E&S Monitoring Report – Mini Hydro ( $\leq 2$ Mw)

### A. Information of the borrower

<b>Name of Organization:</b>			
<b>Completed by(name):</b>			
<b>Position in organization:</b>		<b>Date:</b>	
<b>Reporting period:</b>			

### B. Project Name and Summary Information

<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Stage</b>	
<b>Key developments or changes with respect to project design/operations/expansions</b>	

### C. Environmental Compliance Issues

Sr. No.	Requirement	Status	Guidance
1.	Environmental Category		<i>To be filled by IREDA</i>
2.	Environmental Permits/Consents/Clearances/NoCs/Approvals as obtained for the project		<i>Enclose supporting documentation</i>
3.	Mitigation Measures implemented as identified in the Environment Management Plan.		<i>List the mitigation measures implemented. Also state any additional measures taken</i>
4.	Environment, health and safety related Standards followed or Certifications obtained.		<i>Such as OHSAS-18001, ISO-14001 etc.</i>
5.	Actual water flow being maintained in the dewatered river section? Any issues with maintaining mandated environmental flow for the dewatered river section?		<i>Specify the actual flow in dewatered section as percentage of original flow or volume per unit time</i>
6.	Any issues with downstream water quality such as anoxic water and rotten smell?		<i>Report any quality issues raised</i>
7.	Any issues with downstream river morphology (slumping of river banks and sedimentation)?		<i>If Yes, provide a copy. If No, reason thereof.</i>

Sr. No.	Requirement	Status	Guidance
8.	Any issues with fluctuating downstream river flow due to peaking operation of the power plant?		<i>Provide details of any incident reported or observed</i>
9.	Details of the waste generated and the disposal methods used.		<i>Waste may include excavated materials, packaging materials, etc.</i>
10.	Environment Management Capacity of the project and any enhancement therein?		<i>No. of staff, qualification, experience and trainings undertaken during the period</i>
11.	Any accidents or incidents that may lead to environmental issues such as large scale deforestation, soil erosion, oil leakage, groundwater contamination, dust generation etc.?		<i>If Yes, then describe the event- the damage caused and remedial measure adopted</i>
12.	Any efforts to develop green zones in or around the project sites?		<i>Any plantations, landscaping, afforestation, green belts etc.</i>

#### D. Social Compliance Issues

Sr. No.	Requirement	Status	Guidance
1.	Social Category		<i>To be filled by IREDA</i>
2.	Any open issues with respect to land procurement/lease?		<i>Pending payments, approvals, clearances, local discontent etc.</i>
3.	Status of the implementation of the Resettlement and Rehabilitation Plan if applicable?		<i>No. of households rehabilitated and pending, compensation agreed and given</i>
4.	Occupational Health and Safety measures implemented?		<i>Providing personal protective equipments, on-site medical facilities, health and safety trainings etc.</i>

Sr. No.	Requirement	Status	Guidance
5.	Local employment generation		<i>Number of locally employed-staff actual figure and percentage</i>
6.	Has a Grievance Mechanism been established and how has it been publicly disclosed?		<i>Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and attach photographs of the same.</i>
7.	Grievances (internal or external) raised and respective resolution.		<i>Details of grievances and resolutions thereof.</i>
8.	CSR or any other community development activity supported and undertaken?		
9.	Any other accidents or incidents that may or have caused community health/social issues?		<i>Labor accidents, social unrest, local-migrant labor conflicts etc.</i>
10.	Any stakeholder engagement and interaction undertaken?		<i>Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.</i>

### E. Indigenous People Safeguards

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		<i>To be filled by IREDA</i>
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>

No.	Requirement	Status	Guidance
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

## Annex F6: E&S Monitoring Report – Run Of River Hydro Power

### A. Information of the borrower

<b>Name of Organization:</b>			
<b>Completed by(name):</b>			
<b>Position in organization:</b>		<b>Date:</b>	
<b>Reporting period:</b>			

### B. Project Name and Summary Information

<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Stage</b>	
<b>Key developments or changes with respect to project design/operations/expansions</b>	

### C. Environmental Compliance Issues

Sr. No.	Requirement	Status	Guidance
1.	Environmental Category		<i>To be filled by IREDA</i>
2.	Environmental Permits/Consents/Clearances/NoCs/Approvals as obtained for the project		<i>Enclose supporting documentation</i>
3.	Mitigation Measures implemented as identified in the Environment Management Plan.		<i>List the mitigation measures implemented. Also state any additional measures taken</i>
4.	Environment, health and safety related Standards followed or Certifications obtained.		<i>Such as OHSAS-18001, ISO-14001 etc.</i>
5.	Actual water flow being maintained in the dewatered river section? Any issues with maintaining mandated environmental flow for the dewatered river section?		<i>Specify the actual flow in dewatered section as percentage of original flow or volume per unit time</i>
6.	Any issues with downstream water quality such as anoxic water and rotten smell?		<i>Report any quality issues raised</i>
7.	Any issues with downstream river morphology (slumping of riverbanks and sedimentation)?		<i>If Yes, provide a copy. If No, reason thereof.</i>



Sr. No.	Requirement	Status	Guidance
8.	Any issues with fluctuating downstream river flow due to peaking operation of the power plant?		<i>Provide details of any incident reported or observed</i>
9.	Details of the waste generated and the disposal methods used.		<i>Waste may include excavated materials, packaging materials, etc.</i>
10.	Environment Management Capacity of the project and any enhancement therein?		<i>No. of staff, qualification, experience and trainings undertaken during the period</i>
11.	Any accidents or incidents that may lead to environmental issues such as large scale deforestation, soil erosion, oil leakage, groundwater contamination, dust generation etc.?		<i>If Yes, then describe the event- the damage caused and remedial measure adopted</i>
12.	Any efforts to develop green zones in or around the project sites?		<i>Any plantations, landscaping, afforestation, green belts etc.</i>

#### **D. Social Compliance Issues**

Sr. No.	Requirement	Status	Guidance
1.	Social Category		<i>To be filled by IREDA</i>
2.	Any open issues with respect to land procurement/lease?		<i>Pending payments, approvals, clearances, local discontent etc.</i>
3.	Status of the implementation of the Resettlement and Rehabilitation Plan if applicable?		<i>No. of households rehabilitated and pending, compensation agreed and given</i>
4.	Occupational Health and Safety measures implemented?		<i>Providing personal protective equipments, on-site medical facilities, health and safety trainings etc.</i>

Sr. No.	Requirement	Status	Guidance
5.	Local employment generation		<i>Number of locally employed-staff actual figure and percentage</i>
6.	Has a Grievance Mechanism been established and how has it been publicly disclosed?		<i>Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and attach photographs of the same.</i>
7.	Grievances (internal or external) raised and respective resolution.		<i>Details of grievances and resolutions thereof.</i>
8.	CSR or any other community development activity supported and undertaken?		
9.	Any other accidents or incidents that may or have caused community health/social issues?		<i>Labor accidents, social unrest, local-migrant labor conflicts etc.</i>
10.	Any stakeholder engagement and interaction undertaken?		<i>Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.</i>

### E. Indigenous People Safeguards

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		<i>To be filled by IREDA</i>
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>

No.	Requirement	Status	Guidance
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

## Annex F7: E&S Monitoring Report – Reservoir Based Hydro Power

### A. Information of the borrower

<b>Name of Organization:</b>			
<b>Completed by(name):</b>			
<b>Position in organization:</b>		<b>Date:</b>	
<b>Reporting period:</b>			

### B. Project Name and Summary Information

<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Stage</b>	
<b>Key developments or changes with respect to project design/operations/expansions</b>	

### C. Environmental Compliance Issues

Sr. No.	Requirement	Status	Guidance
1.	Environmental Category		To be filled by IREDA
2.	Environmental Permits/Consents/Clearances/NoCs/Approvals as obtained for the project		Enclose supporting documentation
3.	Mitigation Measures implemented as identified in the Environment Management Plan.		List the mitigation measures implemented. Also state any additional measures taken
4.	Environment, health and safety related Standards followed or Certifications obtained.		Such as OHSAS-18001, ISO-14001 etc.
5.	Actual water flow being maintained in the dewatered river section? Any issues with maintaining mandated environmental flow for the dewatered river section?		Specify the actual flow in dewatered section as percentage of original flow or volume per unit time

Sr. No.	Requirement	Status	Guidance
6.	Any issues with downstream water quality such as anoxic water and rotten smell?		<i>Report any quality issues raised</i>
7.	Any issues with downstream river morphology (slumping of river banks and sedimentation)?		<i>If Yes, provide a copy. If No, reason thereof.</i>
8.	Any issues with fluctuating downstream river flow due to peaking operation of the power plant?		<i>Provide details of any incident reported or observed</i>
9.	Details of the waste generated and the disposal methods used.		<i>Waste may include excavated materials, packaging materials, etc.</i>
10.	Environment Management Capacity of the project and any enhancement therein?		<i>No. of staff, qualification, experience and trainings undertaken during the period</i>
11.	Any accidents or incidents that may lead to environmental issues such as large scale deforestation, soil erosion, oil leakage, groundwater contamination, dust generation etc.?		<i>If Yes, then describe the event- the damage caused and remedial measure adopted</i>
12.	Any efforts to develop green zones in or around the project sites?		<i>Any plantations, landscaping, afforestation, green belts etc.</i>

#### D. Social Compliance Issues

Sr. No.	Requirement	Status	Guidance
1.	Social Category		<i>To be filled by IREDA</i>
2.	Any open issues with respect to land procurement/lease?		<i>Pending payments, approvals, clearances, local discontent etc.</i>

Sr. No.	Requirement	Status	Guidance
3.	Status of the implementation of the Resettlement and Rehabilitation Plan if applicable?		<i>No. of households rehabilitated and pending, compensation agreed and given</i>
4.	Occupational Health and Safety measures implemented?		<i>Providing personal protective equipments, on-site medical facilities, health and safety trainings etc.</i>
5.	Local employment generation		<i>Number of locally employed-staff actual figure and percentage</i>
6.	Has a Grievance Mechanism been established and how has it been publicly disclosed?		<i>Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and attach photographs of the same.</i>
7.	Grievances (internal or external) raised and respective resolution.		<i>Details of grievances and resolutions thereof.</i>
8.	CSR or any other community development activity supported and undertaken?		
9.	Any other accidents or incidents that may or have caused community health/social issues?		<i>Labor accidents, social unrest, local-migrant labor conflicts etc.</i>

Sr. No.	Requirement	Status	Guidance
10.	Any stakeholder engagement and interaction undertaken?		<i>Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.</i>

### E. Indigenous People Safeguards

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		<i>To be filled by IREDA</i>
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

## Annex F8: E&S Monitoring Report – Solar Based Micro/Mini Grid

### A. Information of the borrower

<b>Name of Organization:</b>			
<b>Completed by(name):</b>			
<b>Position in organization:</b>		<b>Date:</b>	
<b>Reporting period:</b>			

### B. Project Name and Summary Information

<b>Loan ID</b>	
<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Status</b>	
<b>Key Developments/ Changes</b>	

### C. Environmental Compliance Issues

No.	Requirement	Status	Guidance
1.	Environmental Impact Category		<i>To be filled by IREDA</i>
2.	Environmental Permits/ Consents/ Clearances/NoCs/Approvals as obtained for the project		<i>Enclose supporting documentation</i>
3.	Type of battery being installed in the system		<i>Lead acid or lithium ion</i>
4.	Total number of batteries installed in the project		
5.	Total number of batteries replaced or removed		
6.	What has been the method of disposal of non-functional batteries?		<i>-Buyback with the battery manufacturer -Disposal through registered recyclers</i>
7.	No. of panels damaged/broken during the monitoring period		
8.	Methodology for disposal of broken panels		<i>-Return to the manufacturer - Sent to directly to recycler -Others</i>
9.	Solar Panel cleaning method used and frequency of cleaning.		<i>Water hose, robotic cleaning, mopping etc.</i>
10.	Source of water used for cleaning. Specify quantity per year.		



No.	Requirement	Status	Guidance
11.	Is rainwater harvesting being done and whether the harvested water is used for utility purposes or used for recharging?		
12.	Any accidents or incidents that may lead to environmental issues such acid leakage etc.?		<i>If Yes, then describe the event- the damage caused and remedial measure adopted</i>

#### D. Social Compliance Issues

No.	Requirement	Status	Guidance
1.	Social Impact Category		<i>To be filled by IREDA</i>
2.	Any open issues with respect to land procurement/lease?		<i>Pending payments, approvals, clearances, local discontent etc.</i>
3.	Health and safety related Standards/ Certifications obtained for the equipment		<i>Such as ISO, IEC, BIS etc.</i>
4.	Occupational Health and Safety measures implemented?		<i>Providing personal protective equipments, on-site medical facilities, health and safety trainings etc.</i>
5.	Local employment generation		<i>Number of locally employed-staff actual figure and percentage</i>
6.	Has a Grievance Redressal Mechanism been established and how has it been publicly disclosed?		<i>Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and attach photographs of the same.</i>
7.	Grievances (internal or external) raised by stakeholders and respective resolution.		<i>Details of grievances and resolutions thereof.</i>
8.	CSR or any other community development activity supported and undertaken?		
9.	Any other accidents or incidents that may or have caused social issues?		<i>Labor accidents, social unrest, local-migrant labor conflicts etc.</i>
10.	Any stakeholder engagement/ meetings/ interactions/ consultations and interaction undertaken?		<i>Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.</i>

### E. Indigenous People Safeguards

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		<i>To be filled by IREDA</i>
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

## Annex F9: E&S Monitoring Report - Solar Home Lighting Systems

### A. Information of the borrower

<b>Name of Organization:</b>			
<b>Completed by(name):</b>			
<b>Position in organization:</b>		<b>Date:</b>	
<b>Reporting period:</b>			

### B. Project Name and Summary Information

<b>Loan ID</b>	
<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Status</b>	
<b>Key Developments/ Changes</b>	

### C. Environmental Compliance Issues

No.	Requirement	Status	Guidance
1.	Environmental Impact Category		<i>To be filled by IREDA</i>
2.	No. of systems implemented under the project		<i>Total number of systems provided till the end of monitoring period</i>
3.	No. of systems functional under the project		<i>2(sr. no.) minus non-operational/functional systems</i>
4.	Type of battery being installed in the system		<i>Lead acid or lithium ion</i>
5.	Total number of batteries installed in the project		<i>The number of batteries would be equal to the number of systems installed under the project</i>
6.	Total number of batteries replaced or removed		
7.	What has been the method of disposal of non-functional batteries?		<i>-Buyback with the battery manufacturer -Disposal through registered recyclers</i>
8.	No. of panels damaged/broken during the monitoring period		
9.	Methodology for disposal of broken panels		<i>-Return to the manufacturer - Sent to directly to recycler</i>

No.	Requirement	Status	Guidance
			-Others
10.	Any accidents or incidents that may lead to environmental issues reported/observed during the monitoring period?		If Yes, then describe the event- the damage caused and remedial measure adopted

#### D. Social Compliance Issues

No.	Requirement	Status	Guidance
1.	Social Impact Category		To be filled by IREDA
2.	Health and Safety measures taken for/by the occupants as identified during project planning		List the mitigation measures implemented. Also state any additional measures taken
3.	Health and safety related Standards/ Certifications obtained for the equipment		Such as ISO, IEC, BIS etc.
4.	Local employment generation		Number of locally employed-staff actual figure and percentage
5.	Has a Grievance Redressal Mechanism been established and how has it been publicly disclosed?		Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and attach photographs of the same.
6.	Grievances (internal or external) raised by the stakeholders and respective resolution.		Details of grievances and resolutions thereof.
7.	Any other accidents or incidents that may or have caused social issues?		Labor accidents, social unrest, local-migrant labor conflicts etc.
8.	Any stakeholder engagement/ meetings/ interactions/ consultations and interaction undertaken?		Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.

#### E. Indigenous People Safeguards

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		To be filled by IREDA

No.	Requirement	Status	Guidance
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

## Annex F10: E&S Monitoring Report – Solar Irrigation Pumps

### A. Information of the borrower

<b>Name of Organization:</b>			
<b>Completed by (name):</b>			
<b>Position in organization:</b>		<b>Date:</b>	
<b>Reporting period:</b>			

### B. Project Name and Summary Information

<b>Loan ID</b>	
<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Status</b>	
<b>Key Developments/ Changes</b>	

### C. Environmental Compliance Issues

Sr. No.	Requirement	Status	Guidance
1.	Environmental Impact Category		<i>To be filled by IREDA</i>
2.	No. of pumps implemented under the project		<i>Total number of pumps provided till the end of monitoring period</i>
3.	No. of pumps functional under the project		<i>2(sr. no.) minus non-operational/functional systems</i>
4.	Activities for Awareness creation for judicious utilization of awareness about judicious utilization of ground water resources.		<i>Enlist the activities undertaken by the manufacturer for creating awareness</i>
5.	No. of panels damaged/broken during the monitoring period		
6.	Methodology for disposal of broken panels		<i>-Return to the manufacturer - Sent to directly to recycler -Others</i>
7.	Any accidents or incidents that may lead to environmental issues reported/observed during the monitoring period?		<i>If Yes, then describe the event- the damage caused and remedial measure adopted</i>

### D. Social Compliance Issues

No.	Requirement	Status	Guidance
1.	Social Impact Category		<i>To be filled by IREDA</i>
2.	Health and Safety measures taken for/by the occupants as identified during project planning		<i>List the mitigation measures implemented. Also state any additional measures taken</i>
3.	Health and safety related Standards/ Certifications obtained for the equipment		<i>Such as ISO, IEC, BIS etc.</i>
4.	Local employment generation		<i>Number of locally employed-staff actual figure and percentage</i>
5.	Has a Grievance Redressal Mechanism been established and how has it been publicly disclosed?		<i>Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and attach photographs of the same.</i>
6.	Grievances (internal or external) raised by the stakeholders and respective resolution.		<i>Details of grievances and resolutions thereof.</i>
7.	Any other accidents or incidents that may or have caused social issues?		<i>Labor accidents, social unrest, local-migrant labor conflicts etc.</i>
8.	Any stakeholder engagement/ meetings/ interactions/ consultations and interaction undertaken?		<i>Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.</i>

### E. Indigenous People Safeguards

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		<i>To be filled by IREDA</i>
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>

No.	Requirement	Status	Guidance
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**



## Annex F11: E&S Monitoring Report – Aerogenerators & Solar Wind Hybrid

### A. Information of the borrower

<b>Name of Organization:</b>	
<b>Completed by(name):</b>	
<b>Position in organization:</b>	<b>Date:</b>
<b>Reporting period:</b>	

### B. Project Name and Summary Information

<b>Loan ID</b>	
<b>Name</b>	
<b>Location</b>	
<b>Capacity</b>	
<b>Stage</b>	
<b>Key Developments/ Changes</b>	

### C. Environmental Compliance Issues

<b>Sr. No.</b>	<b>Requirement</b>	<b>Status</b>	<b>Guidance</b>
1.	Environmental Category		<i>To be filled by IREDA</i>
2.	Environmental Permits/Consents/Clearances/NoCs /Approvals as obtained for the project		<i>Enclose supporting documentation</i>
3.	Mitigation Measures implemented as identified in the Environment Management Plan.		<i>List the mitigation measures implemented. Also state any additional measures taken</i>
4.	Estimated number and frequency of bird and bat strikes over the reporting period?		<i>Provide the details of the incidents observed or reported within 300 m radius of the turbine</i>
5.	Methodology for disposal of broken panels		<i>-Return to the manufacturer - Sent to directly to recycler -Others</i>
6.	Details of other waste generated and the disposal methods used.		<i>Waste may include excavated materials, packaging materials, etc.</i>
7.	Implemented mitigation measures as per project EMP?		<i>If Yes, provide a copy. If No, reason thereof.</i>
8.	Environment Management Capacity of the project (no. of staff,		<i>No. of staff, qualification ,</i>

Sr. No.	Requirement	Status	Guidance
	qualification and experience) and any enhancement therein?		<i>experience and trainings undertaken during the period</i>
9.	Any accidents or incidents that may lead to environmental issues such as oil leakage etc.?		<i>If Yes, then describe the event- the damage caused and remedial measure adopted</i>
<b>In case of solar wind hybrid</b>			
10.	The type of battery being installed in the system		<i>Lead acid or lithium ion</i>
11.	Total number of batteries replaced or removed		
12.	What has been the method of disposal of non-functional batteries?		<i>-Buyback with the battery manufacturer -Disposal through registered recyclers</i>
13.	No. of panels damaged/broken during the monitoring period		

#### D. Social Compliance Issues

No.	Requirement	Status	Guidance
1.	Social Impact Category		<i>To be filled by IREDA</i>
2.	Any open issues with respect to land procurement/lease?		<i>Pending payments, approvals, clearances, local discontent etc.</i>
3.	Health and safety related Standards/ Certifications obtained for the equipment		<i>Such as ISO, IEC, BIS etc.</i>
4.	Occupational Health and Safety measures implemented?		<i>Providing personal protective equipments, on-site medical facilities, health and safety trainings etc.</i>
5.	Local employment generation		<i>Number of locally employed-staff actual figure and percentage</i>
6.	Has a Grievance Redressal Mechanism been established and how has it been publicly disclosed?		<i>Attach a copy of grievance redressal mechanism adopted and state the mode of public disclosures (display board at site, public notice etc.) and attach photographs of the same.</i>

No.	Requirement	Status	Guidance
7.	Grievances (internal or external) raised by stakeholders and respective resolution.		<i>Details of grievances and resolutions thereof. Grievances may be related to noise, shadow flicker, bird/bat hits, distraction to traffic.</i>
8.	CSR or any other community development activity supported and undertaken?		
9.	Any other accidents or incidents that may or have caused social issues?		<i>Labor accidents, social unrest, local-migrant labor conflicts etc.</i>
10.	Any stakeholder engagement/ meetings/ interactions/ consultations and interaction undertaken?		<i>Stakeholders may include- local government, NGOs, Self Help Groups (SHGs), Panchayats, residents etc.</i>

### E. Indigenous People Safeguards

No.	Requirement	Status	Guidance
1	Indigenous People Impact Category		<i>To be filled by IREDA</i>
2	Implementation of Indigenous People's Plan (IPP) if applicable?		<i>List the measures undertaken for Indigenous People Protection and Safeguards</i>
3	Any observed impacts (positive or negative) on indigenous people?		<i>List the impact indicators of the project such as- change in customary practices, livelihood, living standards etc.</i>
4	Mitigation of negative impacts if any?		<i>If not already included in the IPP.</i>
5	Any incidents or accidents that may have an effect on the indigenous population?		<i>Any untoward mishap/social incident</i>
6	Grievances raised by indigenous population and respective resolution?		<i>Details of grievances and resolutions thereof.</i>

**Prepared by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

**Reviewed by:**

**Name:**

**Position:**

**Signature:**

**Phone:**

**E-mail:**

## **ANNEX G: GRIEVANCE REDRESSAL MECHANISM**

### **1 Introduction**

The implementation of a project may have implications on both the environment as well as the people around the project site. People may be apprehensive about the impacts of the project during the construction and operational phase. IREDA and its client/borrower seek to build strong relationships with stakeholders and manage the impact of its business activities on affected communities. The Grievance Procedure allows stakeholders to raise questions or concerns or provide positive feedback with IREDA and have them addressed in a prompt and respectful manner. IREDA aims to address all complaints received, regardless of whether they stem from real or perceived issues. Any stakeholder who considers himself affected by activities of IREDA funded projects will have access to this procedure. The statutory rights of the complainant to undertake legal proceedings remain unaffected by participation in this process and the GRM shall be transparent, easily accessible, considerate of gender and cultural diversity and capable of encompassing the risks associated with all stages of the project that may have an impact on the people and surrounding environment.

IREDA seeks to foster trust in the process and its outcomes. To this end, IREDA will communicate this procedure in an understandable manner to affected stakeholder groups. Confidentiality will be respected and IREDA will take all reasonable steps to protect the interest of parties.

#### **1.1 Purpose**

This mechanism establishes the process for addressing complaints raised in connection with activities of IREDA funded projects. It describes the scope and procedural steps for the complaint handling and specifies roles and responsibilities of the parties involved. It will be revised and updated periodically based on experience and feedback from stakeholders.

#### **1.2 Objectives**

This Procedure has the following objectives:

- Establish a prompt, consistent and transparent mechanism for receiving, investigating and responding to complaints from stakeholders
- Ensure proper documentation of complaints and any corrective actions taken;
- Identify and manage stakeholder concerns and thus support effective risk management; and
- Contribute to continuous improvement in performance through feedback and lessons learned

### **2 Scope**

Project affected parties may submit complaints regarding environmental and social issues arising in connection with the activities related to the project. This procedure is open to all stakeholders who consider themselves affected by the activities of IREDA.

#### **Project affected party may include:**

- IREDA's Client/borrower
- Affected person(s): May include landowners, local people or anyone residing in the vicinity of the project.
- Mediator for affected person
- Social Service and Welfare Organization

IREDA reserves the right not to address a complaint which it reasonably considers amounts to no more than general, unspecified and un-actionable dissatisfaction with IREDA's client/borrower, is otherwise malicious or vexatious in nature, or concerns a matter for which

IREDA's client/borrower has no formal responsibility (for example, a matter that the government controls).

### 3 Terminology

Terminology used in this Procedure has the following meaning:

Term	Definition
<b>Complainant</b>	An individual, group or organisation who submits a complaint to IREDA.
<b>Complaint</b>	An expression of dissatisfaction with IREDA, typically referring to a specific source of concern and/or seeking a specific solution. For the purposes of this mechanism, a question or request may also be treated as a complaint.
<b>Complaint Log</b>	A database for maintaining information about complaints received.
<b>IREDA's client/borrower</b>	A company or an organisation that receives capital or funding directly from IREDA for implementation of project.
<b>Projects</b>	Project or project activities funded by IREDA.

### 4 Roles and Responsibilities for IREDA and IREDA's Borrower

IREDA shall communicate the existence of this grievance procedure to the stakeholders as part of its stakeholder engagement activities. Roles and responsibilities under this Procedure are as follows:

Role	Responsibility
<b>Environment &amp; Social Safeguard Unit (ESSU)</b>	The Environmental and Social Cell of IREDA is responsible for implementation and execution of this procedure.
<b>E&amp;S Compliance Officer (CO)</b>	Responsible for receiving the complaint, providing acknowledgement of receipt, serving as the main point of contact for the complainant, escalate the complaint to the relevant department, ensure timely resolution of complaint and communicate the same to the complainant.
<b>Grievance Committee (GC)</b>	The Grievance Committee will be responsible for reviewing and resolving the complaints received. The committee will consist of following: <ul style="list-style-type: none"><li>• Compliance Officer</li><li>• E&amp;S Specialist</li><li>• Sector Head (for which complaint is received)</li><li>• Project Dealing Officer</li><li>• Representative from Legal Department of IREDA</li><li>• Representative from HR Department of IREDA</li></ul>
<b>Project Developer</b>	IREDA's client/borrower, regarding whose project complaint has been raised. Responsible for resolving a complaint with respect to the project. This includes conducting investigations, proposing resolutions, implementing corrective actions and co-ordinating with the CO and other parties.

<b>Role</b>	<b>Responsibility</b>
<b>Appeal Committee (AC)</b>	The Appeal Committee will be responsible for hearing the appeals with respect to the decisions made by the Grievance Committee. The committee will consist of following: <ul style="list-style-type: none"> <li>• CMD of IREDA</li> <li>• Director (Technical) of IREDA</li> <li>• GM (HR) of IREDA</li> </ul>
<b>Role</b>	<b>Responsibility</b>
<b>Environment &amp; Social Safeguard Unit (ESSU)</b>	The Environmental and Social Cell of IREDA is responsible for implementation and execution of this procedure.
<b>E&amp;S Compliance Officer (CO)</b>	Responsible for receiving the complaint, providing acknowledgement of receipt, serving as the main point of contact for the complainant, escalate the complaint to the relevant department, ensure timely resolution of complaint and communicate the same to the complainant.
<b>Grievance Committee (GC)</b>	The Grievance Committee will be responsible for reviewing and resolving the complaints received. The committee will consist of following: <ul style="list-style-type: none"> <li>• Compliance Officer</li> <li>• E&amp;S Specialist</li> <li>• Sector Head (for which complaint is received)</li> <li>• Project Dealing Officer</li> <li>• Representative from Legal Department of IREDA</li> <li>• Representative from HR Department of IREDA</li> </ul>
<b>Project Developer</b>	IREDA's client/borrower, regarding whose project complaint has been raised. Responsible for resolving a complaint with respect to the project. This includes conducting investigations, proposing resolutions, implementing corrective actions and co-ordinating with the CO and other parties.
<b>Appeal Committee (AC)</b>	The Appeal Committee will be responsible for hearing the appeals with respect to the decisions made by the Grievance Committee. The committee will consist of following: <ul style="list-style-type: none"> <li>• CMD of IREDA</li> <li>• Director (Technical) of IREDA</li> <li>• GM (HR) of IREDA</li> </ul>

## 5 Procedure for Resolving Complaints

This section sets out the process to be followed for receiving, investigating and resolving complaints. Refer to the Grievance Redress Procedure in Figure below:

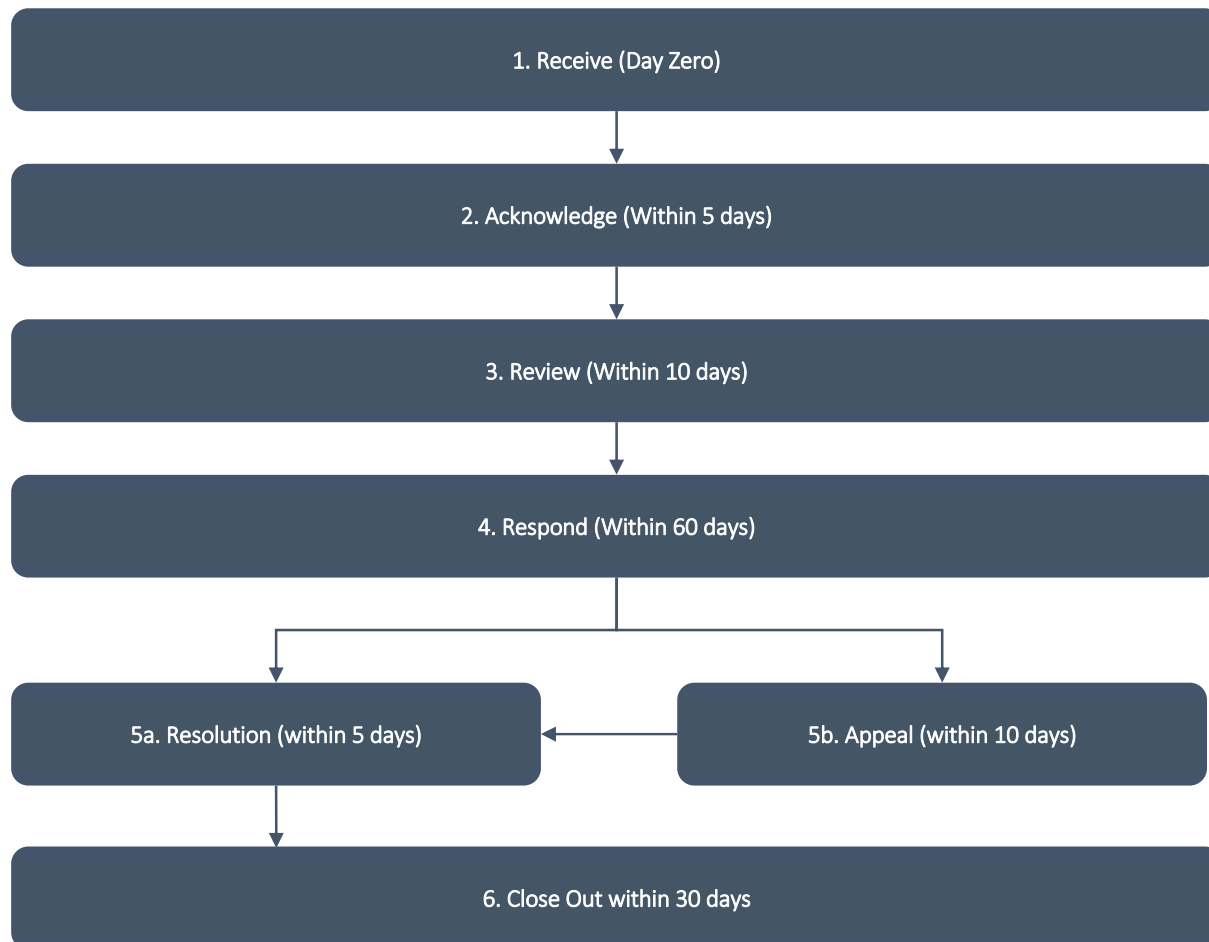


Figure 6: IREDA's Grievance Redress Procedure

### 1. Receive

Stakeholders shall be able to submit a grievance either verbally to the Compliant Officer (CO) or by filling the grievance form. The filled grievance form may be submitted to the CO physically in hard copy or electronically to the following address:

E&S Compliance Officer  
Indian Renewable Energy Development Agency  
Core 4A, India Habitat Centre  
Lodhi Road, New Delhi 110003  
Ph: +91 11 2671 7400, Fax: +91 11 2671 7416  
Email: ESCO@ireda.in

In cases when the mode of filing the complaint is telephonic, the CO will fill it out and read the contents back to verify accuracy. This method of completion will be noted in the form. The CO shall maintain, and update record of the complaints received.

## 2. Acknowledge

Once a complaint has been received, the CO shall register the complaint in the complaint log generate a registration number. Upon registration, the CO shall send a written acknowledgement/email to the complainant acknowledging the receipt of the complaint. The letter should normally be sent within 5 working days of receiving the complaint. The acknowledgement shall be in the format provided in section below. This process shall be completed within **five days** of receipt of the complaint.

## 3. Review

The Grievance Committee (GC) shall be formed within 7 working days of the complaint received, based on the structure mentioned in the table above. A GC meeting shall be convened within 10 working days of receipt of complaint. The objective of the meeting shall be the assessment of severity of the complaint. The factual basis for the complaint shall be investigated and options to resolve the issue shall be proposed. The relevant sector head will contact the project developer for whose project the complaint is received. The project developer should provide access of all relevant documentation to IREDA. The GC may involve third parties in the fact-finding process as required. The identity of the Complainant should only be disclosed to the extent necessary to resolve the issue or as required by law. If the Complainant has specifically requested that his or her identity should not be disclosed, their personal information may not be shared with third parties unless required by law. The GC and the project developer shall agree to the timelines for the resolution of the complaint.

## 4. Respond

The findings and recommendations of the GC shall be communicated to the Complainant. If the Complainant accepts the resolution, Project Developer will proceed to implement (Section 6.5a). If the Complainant does not accept the resolution, he/she has right to escalate the matter to the Appeals Committee (Section 6.5b). The Complainant's response will be documented in the Complaint Log.

## 5. Resolution

If the Complainant accepts the proposed resolution, the agreed actions are implemented. The Project Developer informs the CO once the resolution has been implemented. The CO then asks the Complainant to sign the Close Out Form. If the Complainant agrees to sign, the Complaint is closed out as Resolved. If the Complainant refuses to sign close out form, or is not satisfied with the implementation of recommended resolution, he/she may appeal to the Appeals Committee (Section 6.5b).

## 6. Appeal

IREDA will seek to reach to a resolution with the Complainant that is satisfactory to both sides. If Project Developer and the Complainant are unable to agree on a solution, the Complaint may be escalated to the Appeal(s) Committee for review and final decision.

The Appeal(s) Committee shall review the case and determine if further reasonable action is possible. If no reasonable action is possible, the Appeal(s) Committee authorises the close out of the Complaint. A close out letter will be sent to the Complainant explaining the position of Project Developer.



Cases where the Complainant disputes or declines to acknowledge the implementation of a previously agreed resolution may also be referred to the Appeal(s) Committee for review.

If actions taken on a grievance are not successful, a stakeholder may turn to court in accordance with the existing national legislation.

## **7. Close Out**

A Complaint is closed out when no further action can be or needs to be taken.

Closure status will be classified in the records as follows: Resolved, unresolved or abandoned. The PRO is responsible for updating the Complaints Register and the logistics associated with closing out the case.

At the end of a case, regardless of whether agreement was achieved, the PRO will seek feedback from the Complainant on their level of satisfaction with the complaint handling process and its outcome.

## **6 Performance Monitoring and Reporting**

ESSU Head is responsible for gathering and reporting performance monitoring data under this Procedure. All performance monitoring data should be reported to IREDA's Management annually. Key performance indicators (KPIs) will be collected to enable IREDA to analyse trends in complaints received and identify underlying systemic issues. IREDA E&S Specialist is responsible for making recommendations for changes to policies or practices of IREDA's client/borrower based upon on-going learning from Complaints.

## **7 Confidentiality**

### **7.1. Duty of Confidentiality**

IREDA and IREDA's client/borrower are committed to protecting the identity of the Complainant and to handling personal information in accordance with legal requirements. This duty extends to all employees or representatives of IREDA's client/borrower or its Contractors who participate in the complaint handling process.

Information about a Complaint will be shared within the company on a need-to-know basis and only to the extent necessary to complete a step under this Procedure. IREDA and IREDA's client/borrower will not share personal information with third parties unless required by law or authorised by the Complainant.

### **7.2. Personal Data**

Personal data contained in the Complaints Register will be kept only as long as necessary to investigate the complaint and implement a resolution. Personal data will then be either deleted or modified and transferred to an archive for a reasonable period as required by relevant laws and regulations on Data Privacy.

## **8 Conflicts of Interest**

A conflict of interest exists where there is a divergence between the interests of an employee or Contractor and his or her responsibilities under this Procedure, such that an independent observer might reasonably question whether the actions of that person are influenced by his or her own interests.

This procedure seeks to manage potential conflicts of interest by segregating the roles and responsibilities of individuals involved in the complaint handling process and avoiding placing individuals in a position where conflicts could be perceived to arise. When a complaint relates to a specific IREDA, IREDA's client/borrower or Contractor employee, that person shall not play a role in the complaint handling process.

## Public Grievance Submission Form

Reference No (assigned by a Public Relations Officer, PRO):

*Please enter your contact information and grievance. This information will be dealt with confidence.*

*Please note: If you wish to remain anonymous please enter your comment/grievance in the box below without indicating any contact information – your comments will still be considered by a PRO.*

☐ I want to remain anonymous

Full Name .....

Age: .....

Gender:

Address:

Occupation: .....

Phone No. / Mobile: ..... Email: ..... Fax:

Date and place of complaint submission: .....

Please mark how you wish to be contacted (mail, telephone, e-mail).

☐ By Mail (Please provide mailing address):

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

☐ By Telephone (Please provide Telephone number):

.....

☐ By E-mail (please provide E-Mail address):

.....

Preferred Language for communication

☐ Hindi

☐ English

☐ Other, please specify: .....

Description of Incident or Grievance:

What happened? Where did it happen? Who did it happen to? What is the result of the problem?

Date of Incident/Grievance:

.....  
.....

☐ One time incident/grievance (date .....)

☐ Happened more than once (how many times? .....)

☐ On-going (currently experiencing problem)

<b>Supporting Documents</b>	<input type="checkbox"/>
<b>What would you like to see happen to resolve the problem?</b>	
<div>Signature of Receiving Officer</div> <div>complainant</div> <div>Date:</div>	
<div>Signature of</div> <div>Date:</div>	

*Annexure 2*  
**Acknowledgement Form**

Grievance Identification

No.....

Name of complainant: .....

Address of complainant: .....

Date of complaint: .....

Mode of complaint submission (Verbal/written/ email/ any other):

.....

**Project Details:**

Subproject .....

District: .....

State:

.....

**Summary of complaint:**

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

**Supporting Documents:** .....

**Details of officer receiving the complaint:**

Name: .....

Designation: .....

Contact No.: .....

of officer

Signature

Date:

Annexure 3

**Monthly Update on Grievance Redressal**

Name of complainant: .....

Address of complainant: .....

Contact details of complainant: .....

Grievance Identification No.: .....

**Summary of complaint:**

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

**Reporting period:** .....

**Stage of grievance redress (First/ Second/ Third):** .....

**Summary of measures taken for resolution of grievance during the reporting period:**

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

**Details of officer-in-charge:**

Name: .....

Designation: .....

Contact No.: .....

**ANNEX H: E&S LEGAL REGISTER**

<b>E&amp;S Topics</b>	<b>Title of the Legislation</b>	<b>Date of Promulgation</b>	<b>Date of Update</b>	<b>Competent Authority</b>	<b>Summary of the Legislation</b>	<b>Sector</b>
<b>Environmental Management</b>	Environmental Impact Assessment Notification, 2006, Sr. No. 8(a)	2006	2009	Ministry of Environment and Forests	<p>All projects and activities are broadly categorized in to two categories - Category A and Category B, based on the spatial extent of potential impacts and potential impacts on human health and natural and man-made resources. The classification for River Valley projects as given in the Schedule to the Notification is as under:</p> <ul style="list-style-type: none"> <li>• Category A (a) 50 MW (Mega Watt) hydroelectric power generation;</li> <li>(b) 10,000 ha. of culturable command area under irrigation projects</li> <li>• Category B (a) &lt; 50 MW &gt;25 MW hydroelectric power generation;</li> <li>(b) &lt; 10,000 ha. of culturable command area under irrigation projects</li> <li>(ii) All projects or activities included as Category 'A' in the Schedule, including expansion and modernization of existing projects or activities and change in product mix, shall require prior environmental clearance from the Ministry of Environment and Forests (MoEF) on the recommendations of an Expert Appraisal Committee (EAC) to be</li> </ul>	Hydro

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					<p>constituted by the Central Government for the purposes of this Notification;</p> <p>(iii) All projects or activities included as Category 'B' in the Schedule, including expansion and modernization of existing projects or activities as specified in sub paragraph (ii) of paragraph 2, or change in product mix as specified in sub paragraph (iii) of paragraph 2, but excluding those which fulfill the General Conditions (GC) stipulated in the Schedule, will require prior environmental clearance from the State/Union territory Environment Impact Assessment Authority (SEIAA). The SEIAA shall base its decision on the recommendations of a State or Union territory level Expert Appraisal Committee (SEAC) as to be constituted for in this notification. In the absence of a duly constituted SEIAA or SEAC, a Category 'B' project shall be treated as a Category 'A' project; For mini hydel projects with less than 25 MW, capacity, they need to obtain prior Consent to Establish and Consent to Operate from respective State Pollution Control Board, wherever applicable.</p>	

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
<b>Environmental Management</b>	Environmental Impact Assessment Notification, 2006, Sr. No. 8(a)	2006	2009	Ministry of Environment and Forests	For projects with power generating capacity > 15 MW plants based on biomass fuel, projects would require prior Environmental Clearance from SEIAA under Category B projects. For projects using municipal solid non-hazardous waste as fuel for generating power capacity of > 20 MW, projects should obtain prior Environmental Clearance from MoEF under Category A projects. For projects, generating power <20 MW >15 MW using municipal solid non-hazardous waste, as fuel, prior Environmental Clearance would be required to be obtained under Category B projects. Thermal Power plants up to 15 MW based on biomass or non-hazardous municipal solid waste using auxiliary fuel such as coal, lignite/petroleum products upto 15% are exempt from obtaining prior Environmental Clearance from MoEF or SEIAA.	Biomass
<b>Environmental Management</b>	Environmental Impact Assessment Notification, 2006, Sr. No. 8(a)	2006	2009	Ministry of Environment and Forests	As per the MoEF EIA Notification 2006 and as amended till date, Environmental clearance is not required to be obtained for wind power projects in India.	Wind
<b>Environmental Management</b>	Environmental Impact Assessment	2006	2009	Ministry of Environment and Forests	As per the MoEF EIA Notification 2006 and as amended till date,	Solar



E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
	Notification, 2006, Sr. No. 8(a)				Environmental clearance is not required to be obtained for solar power projects in India.	
<b>Environmental Management</b>	Environmental Impact Assessment Notification, 2006, Sr. No. 8(a)	2006	2009	Ministry of Environment and Forests	<p>As per Ministry of Environment and Forests (MoEF) EIA Notification dated 2006 and as amended till date 25.06.2014 All plants based on biomass fuel having a capacity &gt; 15 MW , are required to obtain prior Environmental Clearance from State EIA Authority and have been categorized as Category B projects.</p> <p>For projects &lt;20 MW &gt;15 MW( using municipal solid non-hazardous waste, as fuel are categorized as Category B projects. Thermal Power plants up to 15 MW based on biomass or non-hazardous municipal solid waste using auxiliary fuel such as coal, lignite/ petroleum products upto 15% are exempt.</p>	Biomass
<b>Environmental Management</b>	National Green Tribunal Act, 2010	2010	NA	Ministry of Environment and Forests	National Green Tribunal Act, 2010 (NGT)[2] is an Act of the Parliament of India which enables creation of a special tribunal to handle the expeditious disposal of the cases pertaining to environmental issues.[3] It was enacted under India's constitutional provision of Article 21, which assures the citizens of India the right to a	All

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					<p>healthy environment. The Tribunal's dedicated jurisdiction in environmental matters shall provide speedy environmental justice and help reduce the burden of litigation in the higher courts. The Tribunal shall not be bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be guided by principles of natural justice. The Tribunal is mandated to make and endeavor for disposal of applications or appeals finally within 6 months of filing of the same. Initially, the NGT is proposed to be set up at five places of sittings and will follow circuit procedure for making itself more accessible; New Delhi is the Principal Place of Sitting of the Tribunal and Bhopal, Pune, Kolkata and Chennai shall be the other 4 place of sitting of the Tribunal. The Tribunal has Original Jurisdiction on matters of "substantial question relating to environment" (i.e. a community at large is affected, damage to public health at broader level) &amp; "damage to environment due to specific activity" (such as pollution). However there is no specific method is defined in Law for determining "substantial" damage to environment, property</p>	

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					<p>or public health. There is restricted access to an individual only if damage to environment is substantial. The powers of tribunal related to an award are equivalent to Civil court and tribunal may transmit any order/award to civil court have local jurisdiction. However, the tribunal does not follow civil law. it follows principles of natural justice The Bill specifies that an application for dispute related to environment can be filled within six months only when first time dispute arose (provide tribunal can accept application after 60 days if it is satisfied that appellant was prevented by sufficient cause from filling the application).</p> <p>Also Tribunal is competent to hear cases for several acts such as Forest (Conservation) Act, Biological Diversity Act, Environment (Protection) Act, Water &amp; Air (Prevention &amp; control of Pollution) Acts etc. and also have appellate jurisdiction related to above acts after establishment of Tribunal within a period of 30 days of award or order received by aggrieved party. The Bill says that decision taken by majority of members shall be binding and every order</p>	

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					of Tribunal shall be final. Any person aggrieved by an award, decision, or order of the Tribunal may appeal to the Supreme Court within 90 days of commencement of award but Supreme Court can entertain appeal even after 90 days if appellant satisfied SC by giving sufficient reasons.	
<b>Environmental Management</b>	Environment (Protection) Act, amended in 1991	1986	1991	Ministry of Environment and Forests	No person carrying on any industry, operation or process shall discharge or emit or permit to be discharged or emitted any environmental pollutant in excess of such standards as may be prescribed.	All
<b>Environmental Management</b>	Environment (Siting for Industrial Projects) Rules 1999	1985	1999	Ministry of Environment and Forests	No new unit of the industries listed in Annexure-I shall be allowed to be set up in the following areas: i. the entire area within the municipal limits of all Municipal Corporations, Municipal Councils and Nagar Panchayats (by whatever name these are known in each state) and a 25 km belt around the cities having population of more than 1 million; ii. 7 km belt around the periphery of the wetlands listed in Annexure-II; and iii. 25 km belt around the periphery of National Parks, Sanctuaries and core zones of biosphere reserves, iv. 0.5 km wide strip on either side of national highways and rail lines;	All

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					2.Establishment of New Units with certain conditions:- Establishment of new units of the industries listed in Annexure-I shall be allowed in 7 km to 25 km belt around the periphery of the wetlands listed in Annexure-II only after careful assessment of their adverse ecological and environmental impacts.	
<b>Environmental Management</b>	Environmental Statement. Rule 14 of Environment (Protection) Rules, 1986 (hereinafter referred to as EPR, 1986)	1986	NA	Ministry of Environment and Forests	Rule 14 of Environmental (Protection) Rules, 1986 mandates that every industry requiring consent under Air or/and Water Act or/and authorization under (HWR) shall submit an Environmental Audit Report on an annual basis in the prescribed format (Form V) to the concerned SPCB (State Pollution Control Board). • The facility should submit to the SPCB before 30-09 of every year, the Environmental Statement for the financial year ending 31-03 as per the format presented in Form V. • The audit report must contain information about consumption of raw materials and water, pollution generated and hazardous/solid wastes generated, including disposal practices. • The audit report must also give details of the impact of pollution	Hydro & Biomass

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					control measures and additional investment proposed for environmental protection and pollution abatement.	
<b>Environmental Management</b>	Public Liability Insurance Act	1991	1992	MOEF& SPCB	An Act to provide for public liability-insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling any hazardous substance and for matters connected therewith or incidental thereto. In exercise of the powers conferred by clause (d) of Section 2 of the Public Liability Insurance Act, 1991 (6 of 1991), the Central Government hereby specifies the quantities shown in column 3 of the Table below for which or exceeding which every owner handling the hazardous substance mentioned in the corresponding entry in column 2 thereof shall take out insurance policy as per the provisions of the said Act. 3. (1) Where death or injury to any person (other than a workman) or damage to any property has resulted from an accident, the owner shall-be liable to give such relief as is specified in Schedule for such death, injury or damage. (2) In any claim for relief under	All

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					<p>sub-section (I) (hereinafter referred to in this Act as claim for relief), the claimant shall not be required to plead and establish that the death, injury or damage in respect of which the claim has been made was due to any wrongful act, neglect or default of any person. Every owner shall take out, before he starts handling any hazardous substance, one or more insurance policies providing for contracts of insurance whereby he is insured against liability to give relief under sub-section (1) of section 3; Provided that ally owner handling any hazardous substance immediately before the commencement of this Act shall take out such insurance policy or policies as soon as may be and in any case within a period of one year from such commencement. (2) Every owner shall get the insurance policy, referred to in subsection (1), renewed from time to time before the expiry of the period of validity thereof so that the insurance policies may remain in force throughout the period during which such handling is continued. No insurance policy taken out by an owner shall be for a amount less than the amount of</p>	

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					the paid-up capital of the under taking handling any hazardous substance and owned or controlled by that owner and more than the amount, not exceeding fifty crore rupees, as may be prescribed.	
<b>Air Emissions</b>	Emission Standards for Diesel Generators (DG)- Environmental (Protection) Second Amendment Rules, 2002 as amended (hereinafter referred to as EPR, 2002)	1983	2009	SPCB	If the facility has installed DG (Diesel Generator) of capacity up to 800 Kilo Watt (KW) on its premises, the air emission limits for the same should comply with the standards specified under Environment (Protection) Second Amendment Rules, 2002. These standards specify the maximum permissible limits for oxides of nitrogen, hydrocarbons, carbon monoxide and particulate matter for three different categories of DG based on their capacities (up to 19KW, 19-176KW and 176-800KW). Air emission sources such as DG where emissions are regulated directly to the capacity of the equipment and the quality of fuel. A formula is used based on the sulphur content of the fuel or using the formula $H = + 0.2 (kVA)^{0.5}$ , where H is the stack height in meters, h is the height of the building in	All



E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					meters and kVA is the rating of the diesel generator to ensure compliance.	
<b>Air Emissions</b>	G.S.R.384 (E), [16/11/2009] - National Ambient Air Quality Standards (earlier- G.S.R.6(E), [21/12/1983] - The Air (Prevention and Control of Pollution) (Union Territories) Rules, 1983 )	1983	2009	SPCB	NAAQS (National Ambient Air Quality Standards) which have been promulgated under Section 16 (2) (h) of the Air Act, prescribe the levels of various pollutants in air (air quality) with an adequate margin of safety, to protect the public health, vegetation and property. The standards prescribe the daily average and annual average standard levels of various pollutants including Sulphur Dioxide, Nitrogen Dioxide, Particulate Matter (PM 10 and PM 2.5), Ozone, Lead, Carbon monoxide, Ammonia, Benzene, Benzo (a) Pyrene (Particulate phase only), Arsenic, and Nickel per the area ( Industrial/rural/ residential/other areas and sensitive area) in which site is located. The onus of proof lies with the industry to prove that its emissions are not resulting in ambient air quality standards being breached.	Hydro & Biomass
<b>Consent to Establish</b>	Air (Prevention and Control of Pollution) Act,1981 as amended 1987; and	1981	1987	State Pollution Control Board	Section 21(1): Given the provisions of Section 21, a Consent to Establish (CTE) is required to be obtained from the State Pollution	All

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
	Air (Prevention and Control of Pollution) Rules 1982.				Control Board (SPCB) prior to commencing construction/ development of any new establishment covered under Section 21 (i.e. any operation that may result in air emissions). However, it must be noted that states like Maharashtra and Andhra Pradesh have exempted this requirement for obtaining CTE & CTO for renewable energy projects.	
<b>Consent to Establish</b>	Water (Prevention and Control of Pollution) Act 1974, as amended 1988; and Water (Prevention and Control of Pollution) Rules 1975.	1974	1988	State Pollution Control Board	A Consent to Establish (CTE) is required to be obtained from the State Pollution Control Board (SPCB) prior to commencing construction/ development of any new establishment covered under Section 25. According to the provisions of Section 25(1) of the Water (Prevention and Control of Pollution) Act 1974, as amended 1988, no person shall, without the previous consent of the State Board: (a) establish or take any steps to establish any industry, operation or process, or any treatment and disposal system or an extension or addition thereto, which is likely to discharge sewage or trade effluent into a stream or well or sewer or on land (such discharge being hereafter in this section referred to as discharge of sewage); or	All

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					(b) bring into use any new or altered outlets for the discharge of sewage; or (c ) begin to make any new discharge of sewage. However, it must be noted that states like Maharashtra, Haryana and Andhra Pradesh have exempted this requirement for obtaining CTE & CTO for renewable energy projects.	
<b>Consent to Operate</b>	Air Act,1981 as amended 1987; and Air (Prevention and Control of Pollution) Rules 1982	1981	1987	State Pollution Control Board	Section 21(1): Given the provisions of Section 21, a Consent to Operate (CTO) is required prior to commencing operations. In case there are any new or altered sources of air emissions after grant of the CTO, the owner/ occupier is required to intimate the same to SPCB and obtain a suitably revised CTO. Application for renewal of the CTO granted under the Air Act, 1981 needs to be submitted at least ninety (90) days prior to the date of the expiry of the current CTO.	All
<b>Consent to Operate</b>	Water (Prevention and Control of Pollution) Act 1974, as amended 1988; and Water (Prevention and Control of Pollution) Rules 1975.	1974	1988	State Pollution Control Board	Given the provisions of Section 25, a Consent to Operate (CTO) is required prior to commencing operations. In case there are any new or altered sources of wastewater discharge after grant of the CTO, the owner/ occupier is required to intimate the same to the local SPCB and obtain a suitably	All

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					<p>revised CTO. Application for renewal of the CTO granted under the Water Act, 1974 needs to be submitted at least ninety (90) days prior to the date of the expiry of the current CTO.</p> <p>Apply to State Pollution Control Board (SPCB) for obtaining CTE and subsequently CTO under Section 25 of the Water Act. Display compliance to the standards prescribed by the West Bengal State Pollution Control Board (WBPCB). Submit wastewater monitoring reports as prescribed by the State Pollution Control Board (SPCB)</p>	
<b>Biodiversity</b>	The Indian Forest Act, 1927	1921	1927	State Forest Department	<p>The State Government may constitute any forest-land or waste-land which is the property of Government, or over which the Government has proprietary rights, or to the whole or any part of the forest-produce of which the Government is entitled, a reserved forest in the manner hereinafter provided. .(1) Any person who (a) makes any fresh clearing prohibited by section 5, or (b) sets fire to a reserved forest, or, in contravention of any rules made by the State Government in this behalf, kindles any fire, or leaves any fire burning, in such</p>	All

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					<p>manner as to endanger such a forest;</p> <p>or who, in a reserved forest (c) kindles, keeps or carries any fire except at such seasons as the Forest-officer may notify in this behalf, (d) trespasses or pastures cattle, or permits cattle to trespass;</p> <p>(e) causes any damage by negligence in felling any tree or cutting or dragging any timber;</p> <p>(f) fells, girdles, lops, or bums any tree or strips off the bark or leaves from, or otherwise damages, the same;</p> <p>(g) quarries stone, bums lime or charcoal, or collects, subjects to any manufacturing process, or removes, any forest-produce; (h) clears or breaks up any land for cultivation or any other purpose;</p> <p>(i) in contravention of any rules made in this behalf by the State Government hunts, shoots, fishes, poisons water or sets traps or snares; or (j) in any area in which the Elephants Preservation Act, 1879 (6 of 1879), is not in force, kills or catches elephants in contravention of any rules so made, shall be punishable with imprisonment for a term which may extend to six months, or with fine which may extend to five hundred rupees, or with both, in addition to such compensation</p>	

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					for damage done to the forest as the convicting Court may direct to be paid. (2) Nothing in this section shall be deemed to prohibit (a) any act done by permission in writing of the Forest-officer, or under any rule made by the state Government; or (b) the exercise of any right continued under clause (c) of subsection (2) of section 15, or created by grant or contract in writing made by or on behalf of the Government under section 23. (3) Whenever fire is caused wilfully or by gross negligence in a reserved forest, the State Government may (notwithstanding that any penalty has been inflicted under this section) direct that in such forest or any portion thereof the exercise of all rights of pasture or to forest produce shall be suspended for such period as it thinks fit.	
<b>Biodiversity</b>	Forest Conservation Act, 1980	1980	1988	State Forest Department	Notwithstanding anything contained in any other law for the time being in force in a State, no State Government or other authority shall make, except with the prior approval of the Central Government, any order directing- (i) that any reserved forest (within the meaning of the expression "reserved forest" in any law for	All

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					the time being in force in that State) or any portion thereof, shall cease to be reserved; (ii) that any forest land or any portion thereof may be used for any non-forest purpose; (iii) that any forest land or any portion thereof may be assigned by way of lease or otherwise to any private person or to any authority, corporation, agency or any other organization not owned, managed or controlled by Government; (iv) that any forest land or any portion thereof may be cleared of trees which have grown naturally in that land or portion, for the purpose of using it for reforestation.	
<b>Biodiversity</b>	Forest Clearance-Forest Conservation Rules, 2003	1981	2003	MoEF & State Forest Department	As per Rule 6 of the Forest (Conservation) Rules, 2003, any project, which requires use of a forest land for non-forest purposes needs to create a proposal in the appropriate Form (appended to the rules). Form 'A' pertains to proposals seeking first time approval under the Act and Form 'B' is for proposals seeking renewal of leases where approval of the Central Government under the Act has already been obtained. In case of projects requiring 5-40 hectares of land, a State Advisory Group provides its recommendation to the	All

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					regional office of MoEF, while for projects requiring above 40 hectares of land, a Forest Advisory Committee at the central level gives its recommendations to the central office of MoEF.	
<b>Biodiversity</b>	Eco-Sensitive zones, Western Ghats Ecology Expert Panel (WGEEP), reports by Gadgil & Kasturirangan	2011	2014	MoEF	The Kasturirangan committee report has sought to balance the two concerns of development and environment protection, by watering down the environmental regulation regime proposed by the Western Ghats Ecology Experts Panel's Gadgil report in 2012. The Kasturirangan report seeks to bring just 37% of the Western Ghats under the Ecologically Sensitive Area (ESA) zones — down from the 64% suggested by the Gadgil report.[7] Dr. V.S. Vijayan, member of the Western Ghats Ecology Expert Panel (WGEEP) said recommendations of the Kasturirangan report are undemocratic and anti-environmental. This Kasturirangan committee was set up to study the Gadgil committee report on the Western Ghats. Both committees were formed during the time of United Progressive Alliance (UPA) government. In May 2014 National Democratic Alliance	All



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					<p>(NDA) came to power and stated that it would take the recommendations of the Kasturirangan committee over Madhav Gadgil committee report. Therefore any developmental activity should be given permission so that it would not disturb the lifestyle and ecology of the region. Almost three-fourth of the hills, including plantations, cultivated lands and large habitations, is turned into a restricted development zone with an over-arching authority to regulate the region superseding the elected authorities' role. This reports recommended that no new dams based on large scale storage be permitted in Ecologically Sensitive Zone. ESA (Ecologically Sensitive Zone) is a type of a rea which needs special protection and concern because of its landscape, wildlife, fertile land, some historical values etc. Thus, the projects should be identified for ESZ based on this report, and should check the applicability under ESZ1, 2 &amp; 3 from Wild Life Department or Forest Department</p>	

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<b>Biodiversity</b>	Wildlife Protection Act, 1972	1972	2002	Wildlife advisory boards, central zoo authorities	<p>The Wildlife Protection Act, 1972 is an Act of the Parliament of India enacted for protection of plants and animal species. Before 1972, India only had five designated national parks. Among other reforms, the Act established schedules of protected plant and animal species; hunting or harvesting these species was largely outlawed.</p> <p>The Act provides for the protection of wild animals, birds and plants; and for matters connected therewith or ancillary or incidental thereto. It extends to the whole of India, except the State of Jammu and Kashmir which has its own wildlife act. It has six schedules which give varying degrees of protection. Schedule I and part II of Schedule II provide absolute protection - offences under these are prescribed the highest penalties. Species listed in Schedule III and Schedule IV are also protected, but the penalties are much lower. Schedule V includes the animals which may be hunted. The plants in Schedule VI are prohibited from cultivation and planting. The hunting to the Enforcement authorities have the power to compound</p>	All

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					offences under this Schedule (i.e. they impose fines on the offenders). Up to April 2010 there have been 16 convictions under this act relating to the death of tigers.	
<b>Biodiversity</b>	Biological Diversity Act 2002	2002	NA	MoEF & State Forest Department	Biodiversity has been defined under Section 2(b) of the Act as "the variability among living organisms from all sources and the ecological complexes of which they are part, and includes diversity within species or between species and of eco-systems". The Act also defines, Biological resources as "plants, animals and micro-organisms or parts thereof, their genetic material and by-products (excluding value added products) with actual or potential use or value, but does not include human genetic material. If a person, violates the regulatory provisions he will be "punishable with imprisonment for a term which may extend to five years, or with fine which may extend to ten lakh rupees and where the damage caused exceeds ten lakh rupees such fine may commensurate with the damage caused, or with both. "Any offence under this Act is non-bailable and cognizable.	

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<b>Water Supply</b>	Section 3(2) of Water (Prevention and Control of Pollution) Cess Act, 1977 and Rules thereunder	1978	2003	State Pollution Control Board	The regulation prescribes collection of Cess for the purpose of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and utilization thereunder. The cess under sub-section (1) shall be payable by every person carrying on any industry practice that consumes water for domestic use (i.e. in washrooms, kitchens, for general cleaning, etc.) and/ or in industrial processes (including non-contact uses such as boilers, cooling towers, etc.) and generates wastewater. This legislation applies even if the facility uses water from an on-site or off-site abstraction well.	Hydro & Biomass
<b>Water Supply</b>	License for Abstraction of Ground water-Central Ground Water Authority First notification No. S.O. 38(E) and the latest amendment notification No. S.O (1024) E	1978	2003	Regional Ground water Board	Applicable to any industrial or commercial facility extracting groundwater from a notified Groundwater Depleted area. In case groundwater abstraction wells are present within areas that have been identified to have a low reserve of groundwater, permission (and registration) from CGWB or concerned State Authority is required for utilization of extracted groundwater for industrial/ commercial purposes.	All

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<b>Waste Management</b>	The Batteries (Management and Handling) Rules, amended 2010	2001	2010	Ministry of Environment & Forest / State Pollution Control Board	These rules shall apply to every manufacturer, importer, re-conditioner, assembler, dealer, recycler, auctioneer, consumer and bulk consumer involved in manufacture, processing, sale, purchase and use of lead acid batteries or components thereof. The rules delineate the responsibility of the consumer, (the category under which infrastructure project sites using plants, equipment and vehicles would fall) namely that they must ensure that used batteries are not disposed of in any manner other than depositing with a dealer, manufacturer, importer, assembler, registered recycler, reconditioner or at designated collection centres.	All
<b>Waste Management</b>	Hazardous Waste Authorization under Section 3 (ze) of the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008	2008	2009	State Pollution Control Board	Wind, hydro and solar power projects use different types of fluids for the smooth operation of the plants. Primarily, three main types of fluid are used: (a) Generator cooling fluid is used as coolant (a mixture of glycol and water, similar to what is used in automobile radiators) (b) In wind power projects-Lubricating oil is used in the gearbox (synthetic oil) (c) Hydraulic oil for operating the blade pitch system, yaw	All

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					<p>mechanism and rakes.</p> <p>To protect transformer from heating, mineral oil (transformer oil) is used as coolant.</p> <p>According to Section 3 of the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008:</p> <p>(d) Maintenance oil (Used oil) for the Turbine generators</p> <p>(e) Solar PV panels - made of hazardous and toxic chemicals (Schedule I, II and III) includes a number of chemicals</p> <p>“Used oil” means any oil derived from crude oil or mixture containing synthetic oil including used engine oil, gear oil , hydraulic oil, turbine oil, compressor oil, industrial gear oil, heat transfer oil, transformer oil, spent oil and their tank bottom sludge.</p> <p>It clearly indicates that the used lubricating oil, hydraulic oil and transformer oil falls in hazardous waste category as per Section 3 (ze). Therefore, as per the said Rule, each and every wind power project operator has to take authorization from the concerned SPCB under Section 5 (1) of the said Rule. The irony is that many SPCBs do not regulate wind power projects or grant authorization. Used oil generated in solar power projects from DG</p>	

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					sets, as well as waste solar PV panels will also fall under this requirement. Used oil in hydro power projects will have to be considered for this authorization also.	
<b>Environmental Noise</b>	Noise Pollution (Regulation and Control) Rules, 2000 as amended (herein after referred to as NPR, 2000)	2000	2010	SPCB	<p>The facility is required to ensure that:</p> <ul style="list-style-type: none"> <li>• The ambient noise levels at the site are maintained within prescribed limits according to land use in the area, during the day (0600 Hrs – 2200 Hrs) and at night (2200 Hrs – 0600 Hrs) by ensuring proper noise control measures.</li> <li>• The maximum permissible limits are as follows: <ul style="list-style-type: none"> <li>- Industrial area: 75 dB (A) during daytime and 70 dB (A) at night;</li> <li>- Commercial area: 65 dB (A) in day and 55 dB (A) in night;</li> <li>- Residential area: 55 dB (A) in day and 45 dB (A) in night; and</li> <li>- Silence zone: 50 dB (A) in day and 40 dB (A) in night.</li> </ul> </li> </ul> <p>Submit reports of the ambient noise monitoring surveys to SPCB at least once in a year, as part of the Annual Environment Statement Report in Form V of EPR, 1986 or at such frequencies specified by SPCB in its consent conditions.</p>	Wind

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<b>Hazardous Substances Handling &amp; Storage</b>	The Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000	1989	2000	State Forest Department	The facility shall identify all hazardous chemicals (toxic substances/ highly reactive substances/ explosive substances / flammable chemicals) used or handled onsite as per the criteria laid down in Part I of Schedule I (based on the toxicity) or listed in Column 2 of Part II of Schedule I or Column 2 of Schedule II, or Column 2 of Schedule III (if applicable) of MSIHC Rules, 1989	All
<b>Storage and Handling of Petroleum products</b>	License Requirements for On-site Petroleum Storage- The Petroleum Act 1934 (as amended) and Petroleum Rules, 2002	1934	2002	Chief Controller, The Petroleum and Explosives Safety Organization , Government of India	Applicable if "Petroleum", is stored in quantities exceeding the prescribed limits. Rules prescribe requirements pertaining to storage, handling and transportation of petroleum products. The Petroleum Act, 1934 defines petroleum as: 2(a) "Petroleum" means any liquid hydrocarbon or mixture of hydrocarbons, and any inflammable mixture (liquid, viscous or solid) containing any liquid hydrocarbon; 2(b) "Petroleum Class A" means petroleum having a flash point below twenty-three degrees Centigrade; (bb) "Petroleum Class B" means petroleum having a flash point of twenty -three degrees Centigrade and above but below sixty-five degree Centigrade.; (bbb) "Petroleum Class C" means petroleum	All



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					having a flash point of sixty -five degrees Centigrade. The facility is required to obtain the necessary license from the Chief Controller of Explosives (CCoE) by applying in the prescribed format along with the prescribed fees. The license thus obtained shall be renewed from time to time to keep it up to date. Upon receipt of the license, the site is required to demonstrate compliance to all the conditions specified in the license.	
<b>Storage and Handling of Petroleum products</b>	License Requirement for Compressed Gas Installations on Site- The Explosives Act, 1884 as amended	1884	2008	Chief Controller, The Petroleum and Explosives Safety Organization , Government of India	As per Rule 2(xxi) of the Gas Cylinder Rules, 2004 'Gas Cylinder' is defined as 'closed metal container having a volume exceeding 500 ml but not exceeding 1000 liters intended for the storage and transport of compressed gas... but not including any other such container fitted to a special transport or under-carriage and includes a composite cylinder, however, the water capacity of cylinders used for storage of CNG, nitrogen, compressed air, etc. may exceed 1000 litres up to 2500 liters provided the diameter of such cylinder does not exceed 60 cm.' Apply to the CCoE or the Controller whose jurisdiction within which the site is located	Hydro

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					for obtaining a license to store and use gas cylinders at the site, if required. Upon receipt of license, the facility shall demonstrate compliance with all conditions specified in the license.	
<b>Storage and Handling of Petroleum products</b>	Explosive Act amended 2008	1884	2008	Chief Controller, The Petroleum and Explosives Safety Organization, Government of India	Persons already in business in respect of certain explosives to carry an such business without license for a certain period - Notwithstanding anything in section 5 or in the rules made thereunder where, immediately before the commencement of the Indian Explosives (Amendment) Act, 1978, any person was carrying on the business of manufacture, sale, transport, import or export of any explosives [for which no license was required under this Act before its amendment by the Indian Explosives (Amendment) Act, 1978], then, such person shall be entitled to continue to carry on such business without license in respect of such explosive - (a) for a period of three months from the date of such commencement; or (b) if before the expiry of the said period of three months, such person has made an application for grant of license under this Act for such business in such explosive, until the	Hydro

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					final disposal of his application, whichever is later.]	
<b>Health &amp; Safety</b>	Motor Vehicle Act, 1988	1939	1989	Ministry of Road Transport and Highways	The Motor Vehicles Act, 1988 is an Act of the Parliament of India which regulates all aspects of road transport vehicles. The Act came into force from 1 July 1989. It replaced Motor Vehicles Act, 1939 which earlier replaced the first such enactment Motor Vehicles Act, 1914.[1] The Act provides in detail the legislative provisions regarding licensing of drivers/conductors, registration of motor vehicles, control of motor vehicles through permits, special provisions relating to state transport undertakings, traffic regulation, insurance, liability, offences and penalties, etc. For exercising the legislative provisions of the Act, the Government of India made the Central Motor Vehicles Rules 1989	All

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<b>H &amp; S Management</b>	Factories Act, 1948 as amended up to 1987	1948	1987	Department of labor	<p>Section 6 Applicable to all factories in India.</p> <p>Rule 3 of the MFR, 1963 prescribes that a project proponent is required to apply for permission from the Chief Inspector of Factories, to 'Construct, Extend, or Take into Use any Building as a Factory', in prescribed Form 1, of MFR, 1963.</p> <p>It also prescribed that the proponent also has to apply for permission for obtaining certificate of stability issued by a competent person in respect of every building to Chief Inspector in Form 1-A prescribed under Rule 3(c).</p> <p>Per the provisions of Rule 4 of MFR, 1963, the occupier is required to register the and obtain a factory license from the Chief Inspector of Factories, before starting to use the premises as factory or carrying on any manufacturing processes therein. This license shall be renewed from time to time in order to keep it current. The application (in Form 2) for the registration shall be submitted in triplicate for the registration accompanied by application in Form 3 for grant of license before commencing the manufacturing process. License is granted by</p>	All

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					<p>the Chief Inspector of Factories in Form Number 4. A licensee is required to have his license amended if there is a change in the name of factory, or if the factory for which the license is granted exceeds the limits specified in the license in regard to horse-power of the number of persons employed which calls for a higher license and renewal fee. An application for the same shall be submitted to the Chief Inspector so as to reach him within a period of 30 days from the date the event requiring amendment of the license occurs with application stating the nature of the amendment and reasons therefore.</p> <p>Rule 3 of the MFR, 1963 prescribes that a project proponent is required to apply for permission from the Chief Inspector of Factories, to 'Construct, Extend, or Take into Use any Building as a Factory', in prescribed Form 1, of MFR, 1963.</p> <p>It also prescribed that the proponent also has to apply for permission for obtaining certificate of stability issued by a competent person in respect of every building to Chief Inspector in Form 1-A prescribed under Rule 3(c).</p>	

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					<p>Per the provisions of Rule 4 of MFR, 1963, the occupier is required to register the and obtain a factory license from the Chief Inspector of Factories, before starting to use the premises as factory or carrying on any manufacturing processes therein. This license shall be renewed from time to time in order to keep it current. The application (in Form 2) for the registration shall be submitted in triplicate for the registration accompanied by application in Form 3 for grant of license before commencing the manufacturing process. License is granted by the Chief Inspector of Factories in Form Number 4. A licensee is required to have his license amended if there is a change in the name of factory, or if the factory for which the license is granted exceeds the limits specified in the license in regard to horse-power of the number of persons employed which calls for a higher license and renewal fee. An application for the same shall be submitted to the Chief Inspector so as to reach him within a period of 30 days from the date the event requiring amendment of the license occurs with application stating the</p>	

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					nature of the amendment and reasons therefore.	
<b>H &amp; S Management</b>	The Petroleum Act 1934 (as amended) and Petroleum Rules, 2002	1934	2002	Department of labor	<p>Applicable if "Petroleum", is stored in quantities exceeding the prescribed limits.</p> <p>Rules prescribe requirements pertaining to storage, handling and transportation of petroleum products. The Petroleum Act, 1934 defines petroleum as:</p> <p>2(a) "<i>Petroleum</i>" means any liquid hydrocarbon or mixture of hydrocarbons, and any inflammable mixture (liquid, viscous or solid) containing any liquid hydrocarbon;</p> <p>2(b) "<i>Petroleum Class A</i>" means petroleum having a flash point</p>	All

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					<p>below twenty-three degrees Centigrade;                      (bb) "<i>Petroleum Class B</i>" means petroleum having a flash point of twenty -three degrees Centigrade and above but below sixty-five degree Centigrade.;                      (bbb) "<i>Petroleum Class C</i>" means petroleum having a flash point of sixty -five degrees Centigrade.'</p> <p>The facility is required to obtain the necessary license from the Chief Controller of Explosives (CCoE) by applying in the prescribed format along with the prescribed fees. The license thus obtained shall be renewed from time to time to keep it current.</p> <p>Upon receipt of the license, the site is required to demonstrate compliance to all the conditions specified in the license.</p>	
<b>H &amp; S Management</b>	The Explosives Act, 1884 as amended	1884	2004	Department of labor	Per Rule 2(xxi) of the Gas Cylinder Rules, 2004 ' <i>Gas Cylinder</i> ' is defined as 'closed metal container having a volume exceeding 500 ml but not exceeding 1000 litres intended for the storage and transport of compressed gas... but not including any other such container fitted to a special transport or under-carriage and includes a composite cylinder, however, the water capacity of	All



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					<p>cylinders used for storage of CNG, nitrogen, compressed air, etc. may exceed 1000 litres up to 2500 litres provided the diameter of such cylinder does not exceed 60 cm'</p> <p>Apply to the Chief Controller of Explosives or the Controller whose jurisdiction within which the site is located for obtaining a license to store and use gas cylinders at the site, if required.</p> <p>Upon receipt of license, the facility shall demonstrate compliance with all conditions specified in the license.</p>	
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 7A (3) Applicable to all factories under the first schedule under section 2(cb) or carrying out processes or operation declared to be dangerous under section 87 of the Act shall prepare a written statement of his policy in respect of health and safety of workers at work. As per RFR,1951, Health and safety policy is required to be prepared for factory where more than 50 workers are ordinarily employed, or for factories which are declared to be dangerous under Section 87 or in engaged in any</p>	All

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					hazardous process under Section 2 (cb)	
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 7A (3) The H&amp;S Policy should contain: '(a) declared intention and commitment of the top management to health, safety and environment and compliance with all applicable statutory requirements; (b) organizational set up to carry out the declared policy clearly assigning the responsibilities at different levels; (c) arrangements for making the policy effective'</p> <p>In particular, the policy should specify the following: '(a) arrangements for involving workers; (b) intention of taking into account the H&amp;S performance of individuals at different levels while considering their career advancement; (c) fixing the responsibility of the contractors, sub-contractors, transporters and other agencies entering the premises; (d) providing a resume of H&amp;S performance of the factory in its Annual report; (e) relevant techniques and methods (safety audits, risk assessments</p>	All

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					etc.) for periodical assessment of status on health, safety and environment and taking all the remedial measures; (f) stating the intention to integrate H&S into all decision, including those dealing with purchase of plant, equipment, machinery and material as well as selection and placement of personnel; (g) arrangement for informing, educating and training and retaining its own employees at different levels, and the public wherever required; (h) obligations of workers for promoting health and safety.'	
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	Section 7A (3) A copy of the declared Health and safety policy signed by the occupier shall be made available to the Inspector having jurisdiction over the factory and to the Chief Inspector.	All
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	Section 7A (3) The policy should be made widely known amongst employers by displaying at conspicuous places and shall be made available to all workers on including contract workers, apprentices, transport workers, suppliers, etc. and should also be communicated in any other language which is understood by majority of workers.	All

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<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	Section 7A (3) The policy should be updated whenever there is a change in processes or site operation having implications on the safety and health of workers and affected personnel should be adequately informed.	All
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	Section 41 Safety Committee is required for all factories where more than 250 workers are employed or which is covered under the first schedule under section 2(cb) or carrying out processes or operation declared to be dangerous under section 87 of the Act. The facility shall constitute a safety committee for:  (a) Assisting and co-operating with the management in achieving the aims and objectives outlined in the “Health and safety Policy” of the occupier; (b) Dealing with all matters concerning health, safety and environment and to arrive at practicable solution to problems encountered : (c) Creating safety awareness amongst all workers ; (d) Undertaking educational, training and promotional activities; (e) Discussing reports on safety environmental health surveys, safety audits risk assessment, emergency and disaster	All

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					management plan and implementation of the recommendations made in the reports; (f) Carrying out health and safety surveys and identifying cause of accidents; (g) Looking into any complaint made on the likelihood of an imminent danger to the safety and health of the workers and suggesting corrective measures; (h) Reviewing the implementation of the recommendations by it; and	
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	Section 41 The tenure of the committee shall be two (2) years.  Safety Committee shall meet as often as necessary but at least once in every quarter. The minutes of the meeting shall be recorded and produced to the Inspector on demand.	All
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	Section 40 B Applicable to all Factories in India  At least one dedicated Safety Officer should be appointed at the facility in case the factory employs one thousand individuals or more (or if the State Government deems it required). Safety officer is also required for facilities which in opinion of the State Government is involved in manufacturing process or operation which	All

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					involves any risk of bodily injury, poisoning or disease, or any other hazard to health, to the persons employed in the factory.	
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 40 B The regulations prescribes qualifications of safety officer, appointment of safety officer, conditions of service, duties of safety officers and prohibition of performance of other duties. Safety officer.</p> <p>The Safety Officer should have following qualifications: a) Possesses a degree in any branch of engineering/technology and has practical experience of working in a factory in a supervisory capacity for at least 2 years or has degree in physics or chemistry or diploma in engineering/technology and has practical experience of working in a factory in a supervisory capacity for at least 5 years b) Possesses degree/diploma in industrial safety recognized by State Government; c) Has adequate knowledge of Marathi language. OR Possesses a recognized degree in engineering/technology and has practical experience of working</p>	All

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					in a factory in a supervisory capacity for at least 5 years or in training, education consultancy or research in field of accident prevention in any industry or institution. However exemption in terms of number if years of experience can be granted by Chief Inspector for suitable person having necessary qualifications.	
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 40 B Functions and duties of the Safety Committee shall include:</p> <p>a) Advising and assisting factory management and concerned departments for fulfilling statutory or other obligations concerning prevention of personal injuries and maintaining safe working environment. Planning and organizing measures necessary for effective control of personal injuries.</p> <p>b) To advise on safety aspects in all job studies and to carry out detailed job safety studies of selected jobs;</p> <p>c) To check and evaluate effectiveness of action taken or proposed to prevent personal injuries;</p> <p>d) Ensure availability of high quality Personal Protective Equipment (PPE);</p> <p>e) To provide advise on matters related to plant</p>	All

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					<p>safety inspections and to carry out inspections to observe physical conditions of work practices and procedures followed by workers and render advice to remove unsafe physical conditions and prevention of unsafe actions by workers;</p> <p>f) To provide advice on matters related to reporting and investigation of industrial accidents and diseases.</p> <p>g) To investigate selected accidents;</p> <p>h) To investigate cases of industrial diseases contracted and dangerous occurrences reportable under the Rule 115 of MFR, 1963;</p> <p>i) To advise on maintenance of such records up of as are necessary relating to accidents, dangerous occurrences and industrial diseases;</p> <p>j) To promote setting up of safety committees and act as adviser and catalyst to such committees;</p> <p>k) To organize in association with concerned departments campaigns, competitions, contest and other activities which will develop and maintain the interest of workers in establishing and maintaining safe working conditions;</p> <p>l) To design and conduct either independently or in collaboration with the</p>	



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					<p>training department, suitable training and educational programmes for prevention of personal injuries.</p> <p>Safety officer should be neither required nor permitted to do any work which is inconsistent with or detrimental to the performance of duties described above.</p>	
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 7 A (C) Applicable to all factories in India</p> <p>The regulations prescribe general duty of an occupier pertaining to provision of information, instruction, training and supervision in order to ensure the health and safety of all workers employed at a factory.</p> <p>Special work instructions, training and equipment shall be provided to personnel engaged in hazardous operations including hot work, confined spaces entry, live electrical work, elevated work, hazardous material handling etc. to ensure their safety during such operations.</p>	All

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<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 111-A These regulation prescribe the rights of workers to obtain adequate information, equipment and training so that they are aware of and equipped against the hazards associated with various substances, processes and work situations at the site.</p> <p>The site management must sponsor and arrange for the provision of health and safety training to its workers within the factory, wherever possible, or from any training centre or institute which is approved by the Chief Inspector.</p>	All
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 41 B and 41 C It is the duty of the facility management to maintain, and make available for reference to the concerned authorities on request, the necessary records as prescribed under the provisions of the Factories Act, 1948. The registers and records to be maintained in a factory under the provisions of Factories Act, 1948 should be prepared either in English or any other language understood by most of the workers in the factory.</p>	All

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<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 41 B and 41 C Applicable to all factories in Maharashtra involving hazardous processes and using any hazardous substances in its site operations</p> <p>Prepare the Material Safety Data Sheet (MSDS) in respect of every hazardous substance or material handled in the manufacture, transportation and storage in the factory. MSDS should be accessible upon request to workers for reference.</p> <p>The MSDS shall include the information regarding identity used on the label; hazardous ingredients of the substance; physical and chemical characteristics; physical hazards of substance, including the potential for fire, explosion and reactivity; health hazards; primary routes of entry; permissible exposure limits as prescribed in Section 41F of Factories Act, 1948 or as prescribed by the manufacturer; applicable precautions for safe handling and use of hazardous substance including protective measures during repairs and maintenance of contaminated equipment, procedures</p>	All

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					for cleanup of spills and leaks; appropriate engineering controls; emergency and first aid procedures; date of MSDS preparation; name, address and telephone number of manufacturer, importer, occupier distributing MSDS and other information as mentioned in the schedule attached to Rule 65-N of RFR, 1951. Labelling of every hazardous container should clearly identify contents of container; name and address of the manufacturer; physical and health hazards; and recommended PPE needed to work safely with the hazardous substance.	
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 108</p> <p>In addition to the notices required to be displayed in any factory, a notice containing the abstracts of the Factories Act, 1948 and of the rules made thereunder, should also be displayed at a prominent location in the format prescribed under Form 26 of the MFR, 1963</p> <p>All notices displayed at the factory should be in English and in language understood by the majority of the workers in the factory. All such notices should be displayed at conspicuous location at or near the main</p>	All

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					entrance to the factory and should be maintained in a clean and legible condition.	
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	Section 7A and 7B All persons who are required to supervise the handling of hazardous substances shall possess the following qualifications and experience: (a) Graduate in Chemical Engineering or Technology with specialized knowledge in respect of processes given in the schedule.	All
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	Section 41B and 41C The occupier should supply (in the form of leaflets, booklets and display of cautionary notices) to all the workers (individually) the following information (in a language understood by the majority of the workers) in relation to the handling of hazardous materials or substances in the manufacture, transportation, storage and other processes:  (a) requirements of section 41B, 41C and 41H of the Act; (b) a list of 'Hazardous Processes' carried on in the factory; (c) location and availability of all material data sheet as per rule 65-N. (d) physical and health hazards arising from the exposure to or	All

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					<p>handling of substances;</p> <p>(e) measures taken by the occupier to ensure safety and control of physical and health hazards.</p> <p>(f) measures to be taken by the workers to ensure safe handling storage and transportation of hazardous substance</p> <p>(g) personal protective equipment required to be used by workers employed in 'hazardous process' or 'dangerous operations';</p> <p>(h) meaning of various labels and marketing used on the containers of hazardous substances as provided under rule 73-M;</p> <p>(i) signs or any symptoms likely to be manifested on exposure to hazardous substances and to whom to report;</p> <p>(j) measures to be taken by the workers in case of any spillage or leakage of a hazardous substance;</p> <p>(k) role of workers vis-à-vis the emergency plan of the factory, in particular and the evacuation procedures;</p> <p>(l) Any other information considered necessary by the occupier to ensure safety and health of workers.</p>	
<b>H &amp; S Management</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 41B</p> <p>The occupier of every factory involving a 'hazardous process' shall furnish, in writing, to the Chief Inspector;</p> <p>(1) A copy of all the</p>	All

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					<p>information furnished to the workers, to general public and to district emergency authority.</p> <p>(2) A copy of compilation of material safety data sheets in respects of hazardous substances used, produced or stored in the factory shall be furnished to the Chief Inspector, and the local Inspector.</p> <p>(3) The occupier shall also furnish any other information asked for by the Chief Inspector from time to time for the purpose of this Act and rule made thereunder.</p>	

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<b>Medical Surveillance</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 41C</p> <p>Every factory carrying on 'hazardous process' shall provide and maintain, in good order, an on-site Occupational Health Centre with the following services and facilities as per scale laid down thereunder:</p> <p>(a) For factories employing up to 50 workers-</p> <p>(i) the services of Factory Medical Officer on retainer basis, in his clinic to be notified by the occupier. He will carry out the pre-employment and periodical medical examination as stipulated in rule 73-V and render medical assistance during any emergency;</p> <p>(ii) a minimum of 5 persons trained in first-aid procedures amongst whom at least one shall always be available during the working period;</p> <p>(iii) a fully equipped first-aid box,</p> <p>(b) For factories employing 51 to 200 workers,-</p> <p>(i) an Occupational Health Centre having a room with a minimum floor area of 15 sq.m. with floors and walls made of smooth and impervious surface and with adequate illumination and ventilation as well as equipment as per the schedule annexed to this rule;</p> <p>(ii) a part-time Factory</p>	All



E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					<p>Medical Officer shall be in over-all charge of the Centre who shall visit the factory at least twice in a week and whose services shall be readily available during medical emergencies;</p> <p>(iii) one qualified and trained dresser-cum-compounder on duty throughout the working period;</p> <p>(iv) a fully equipped First-aid box in all the departments,</p> <p>(c) For factories employing above 200 workers,-</p> <p>(i) one full-time Factory Medical Officer for factories employing upto 500 workers and one more medical officer for every additional 1,000 workers or part thereof;</p> <p>(ii) an Occupational Health Centre having at least 2 rooms each with a minimum floor area of 15 sq.m. with floors and walls made of smooth and impervious surface and adequate illumination and ventilation as well as equipment as per the schedule annexed to this rule;</p> <p>(iii) there shall be one nurse, one dresser-cum-compounder and one sweeper-cum-ward boy throughout the working period;</p> <p>(iv) the Occupational Health Centre shall be suitably equipped to manage medical emergencies.</p>	

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					<p>(i) one full-time Factory Medical Officer for factories employing up to 500 workers having qualification prescribed under Rule 65 (SS).</p> <p>(ii) an Occupational Health Centre having at least 2 rooms each with a minimum floor area of 15 sq. meter with floors and walls made of smooth and impervious surface and adequate illumination and ventilation as well as equipment as per the schedule annexed to this rule.</p> <p>(iii) there shall be one nurse, one dresser-cum-compounder and one sweeper-cum-ward boy throughout the working period;</p> <p>(iv) the Occupational Health Centre shall be suitably equipped to manage Medical emergencies.</p>	
<b>Medical Surveillance</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 41E</p> <p>When any accident which results in the death of any person or which results in such bodily injury to any person as is likely to cause his death, or any dangerous occurrence specified in the schedule annexed to the Rule 115 of MFR, 1963 takes place in a factory, the manager of the factory within 4 hours shall forthwith send a notice thereof by telephone, special messenger or telegram to the Inspector</p>	All

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					Administrative Medical Officer, Employees State Insurance Scheme, Bombay, appointed as Additional Inspector under the Act, District Magistrate or Sub-Divisional Magistrate, the Officer-in-charge of the nearest police station, and the nearest relatives of the injured or deceased person. Any such notice shall be confirmed by the facility manager to the mentioned authorities within 12 hours of the accident or dangerous occurrence by sending them a written report in Form 24 in the case of an accident or in Form 16 appended to Employees' State Insurance (General) Regulations, 1950 and in Form 24 A in the case of a dangerous occurrence which has not resulted in any bodily injury to any person.	
<b>Medical Surveillance</b>	Factories Act, 1948	1948	1987	Department of labour	Section 88 When any accident or dangerous occurrence specified in the schedule takes place in a factory and it causes such bodily injury to any person as prevents the person injured from working for a period of 48 hours or more immediately following the accident or the dangerous occurrence, as the case may be, the manager of the factory shall send a report thereof to the Inspector in Form 24 or Form No.	All

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					16 appended to Employees' State Insurance (General) Regulations, 1950 within 24 hours after the expiry of 48 hours from the time of the accident or the dangerous occurrence;	
<b>First Aid</b>	Factories Act, 1948	1948	1987	Department of labour	A notice in Form 25 should be sent forthwith to the Chief Inspector, Medical Inspector of Factories and the Administrative Medical Officer, Employees' State Insurance Scheme, Bombay, appointed as Additional Inspector under the Act by the manager of a factory in which there occurs a case of lead, phosphorous, mercury, manganese, arsenic, carbon disulphide or benzene poisoning or poisoning by nitrous, fumes or by halogens or halogen derivatives of the hydrocarbons of the aliphatic series; or of chrome ulceration, anthrax silicosis, toxic anaemia toxic jaundice primary ophthalmomatous cancer of the skin or pathological manifestations due to radium or other radioactive substances or X-rays.	All
<b>First Aid</b>	Factories Act, 1948	1948	1987	Department of labour	Section 45 Every factory should be provided with first aid boxes or cupboards distinctively marked with a red cross on a white background, placed at convenient locations in the factory.	All

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					<ul style="list-style-type: none"> <li>First aid boxes should be maintained by regular replenishments of its contents and nothing except the prescribed content should be kept in first aid boxes.</li> <li>Each first aid box should be kept in charge of a separate responsible person (who holds a Degree in First aid treatment recognized by the State Government), who shall be available during the working hours of the factory.</li> <li>The content of the first aid boxes should be as prescribed under Rule 76 of MFR, 1963 and should be as per the number of persons employed.</li> </ul>	
<b>First Aid</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 45 The first aid boxes or cup-boards shall be distinctively marked with a red cross on white background and shall contain the following equipments. The number and content of these equipments should be as prescribed under Rule 76 of MFR, 1963.:-</p> <ul style="list-style-type: none"> <li>(i) Small sterilized dressings.</li> <li>(ii) Medium size sterilized dressings</li> <li>(iii) Large size sterilized dressings.</li> <li>(iv) Large size sterilized burn dressings.</li> <li>(v) Packets of sterilized cotton wool.</li> <li>(vi) A snake-bite lancet.</li> <li>(vii) One Pair of scissors.</li> </ul>	All

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					(viii) Bottles of Potassium Permanganate crystals (ix) Bottle containing a two percent alcoholic solution of iodine (x) Bottle of Sal-volatile having the dose and mode of administration indicated on the label. (xi) First-aid leaflet issued by the Directorate General of Factory Advice Service, Government of India. (xii) A bottle containing 100 tablets (each of 5 grains) of aspirin or any other analgesic. (xiii) Roller Bandages ten cms. wide (xiv) Roller Bandages five cms. wide (xv) Rolls of adhesive Plaster (xvi) Triangular bandages. (xvii) Two packets of safety pins (xviii) A supply of suitable splints. (xix) One Tourniquet.	
<b>First Aid</b>	Factories Act, 1948	1948	1987	Department of labour	Section 45 Notice containing the names of the persons working within the precincts of the factory who are trained in first-aid treatment and who are in-charge of the first-aid boxes or cupboards shall be pasted in every factory at a conspicuous place and near each such box or cupboard. The notice shall also indicate work-room where the said person shall be available. The name of the nearest hospital and its telephone number	All

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					shall also be mentioned prominently in the said notice. Notice giving name, address and telephone number of medical practitioner in charge shall be displayed in the ambulance room. The name and telephone number of the nearest hospital and its telephone number shall also be mentioned prominently in the said notice.	
<b>First Aid</b>	Factories Act, 1948	1948	1987	Department of labour	Section 45 In every factory wherein more than 500 workers are ordinarily employed there shall be provided and maintained an ambulance room of the prescribed size, containing the prescribed equipment and in the charge of such medical and nursing staff as may be prescribed. Every ambulance room should be under the charge of at least one whole time qualified medical practitioner (means a person holding qualification granted by an authority specified in the Schedule to the Indian Medical Degrees Act, 1916) assisted by at least one qualified nurse or dresser-cum-compounder and one nursing attendant in each shift. The ambulance room shall be separate from the rest of the factory and shall be used only	All

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					for the purpose of first aid treatment and rest.	
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 Processes, storages, equipment, plant etc. involving serious explosion and serious fire hazards shall be located in segregated buildings where equipments are so arranged that minimum number of people are exposed to such hazards at any one time.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 All industrial processes involving serious fire hazard should be separated from one another by walls of fire resistant construction.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 Ventilation ducts, pneumatic conveyors and similar equipment involving a serious fire risk should be provided with flame arresting or automatic fire extinguishing appliances, or fire resisting dampers, electrically inter-locked with heat sensitive/smoke detractors and the air-conditioning plant system	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 In all workplaces having serious fire or flash hazards, passages between machines, installation or piles of material should be at least 90 cms wide. For	All



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					storage piles, the clearance between the ceiling and the top of the pile should not be less than 2 m.	
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 Protection against lightening should be provided for buildings in which highly flammable substances are stored, storage tanks containing oils, paints or other flammable liquids are present.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 All explosives shall be handled, transported, stored and used as per Indian Explosives Act, 1984 The facility should take adequate precaution where there is a danger of fire or explosion from accumulation of flammable or explosive substances in air.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 The facility shall take adequate precaution to ensure ventilation and avoid formation of air pockets where the materials are likely to induce spontaneous ignition.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 Compressed gas cylinders may only be stored in open if they are protected against excessive variation of temperature, direct rays of sun, or continuous dampness. Such cylinders shall never be stored near highly flammable substances furnaces or hot processes.	All

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					The room where such cylinders are stored shall have adequate ventilation.	
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 The facility shall take all necessary precautions to ensure fire safety in parts of the buildings where flammable liquids are present. Not more than 20 liters of flammable liquids having a flash point of 210C or less than be kept or stored in any work room.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 The facility shall ensure that effective steps are taken for removal or prevention of the accumulation in the air or flammable dust, gas, fume or vapour to an extent which is likely to be dangerous.	All

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<b>Emergency Preparedness &amp; Response</b>	THE CHEMICAL ACCIDENTS (EMERGENCY PLANNING, PREPAREDNESS, AND RESPONSE) RULES, 1996	1996	NA	MoEF	<p>In exercise of the power conferred by Section 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules, namely</p> <p>1. Short Title and Commencement-(1) These rules may be called the Chemical Accidents (Emergency Planning, Preparedness, and Response) Rules, 1996.</p> <p>(2) They shall come into force on the date of their publication in the Official Gazette.</p> <p>2. Definitions .- In these rules unless the context otherwise requires,-</p> <p>a. "chemical accident" means an accident involving a fortuitous, or Sudden or unintended occurrence while handling any hazardous chemicals resulting in continuous, intermittent or repeated exposure to death, or injury to, any person or damage to any property but does not include an accident by reason only of war or radio-activity;</p> <p>(b) "hazardous chemical" means,-</p> <p>i. any chemical which satisfies any of the criteria laid down in Part I of Schedule 1 or is listed in Part 2 of the said schedule;</p> <p>(ii) any chemical listed in Column 2 of Schedule 2;</p> <p>(iii) any chemical listed in Column 2 of</p>	

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					<p>Schedule 3;</p> <p>(c) "industrial activity" includes an operation or process,-</p> <p>i. carried out in an industrial installation referred to in Schedule - 4 involving or likely to involve one or more hazardous chemicals;</p> <p>i. on-site storage or on-site transport which is associated with that operation or process as the case may be;</p> <p>(iii) isolated storage;</p> <p>(iv) pipeline;</p> <p>d. "industrial pocket" means any industrial zone ear-marked by the Industrial Development Corporation of the State Government or by the State Government;</p> <p>e. "isolated storage" means,- storage of a hazardous chemical other than storage associated with an installation on the same site specified in Schedule 4 where that storage involves at least the quantities of that chemical set out in Schedule-2;</p> <p>f. "major chemical accident" means, - an occurrence including any particular major emission, fire or explosion involving one or more hazardous chemicals and resulting from uncontrolled developments in the course of industrial activity or transportation or due to natural events leading to serious effects both immediate or delayed,</p>	

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					<p>inside or outside the installation likely to cause substantial loss of life and property including adverse effects on the environment;</p> <p>g. "Major Accident Hazards (MAH) Installations".- means, isolated storage and industrial activity at a site, handling (including transport through carrier or pipeline) of hazardous chemicals equal to or, in excess of the threshold quantities specified in column 3 of Schedule 2 and 3 respectively;</p> <p>h. "Manufacture, Storage and Import of Hazardous Chemical, Rules" means, - the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, published in the notification of Government of India in the Ministry of Environment &amp; Forests No. S.O.966 (E), dated 27 1h November, 1989;</p> <p>i. "off-site emergency plan" means,- the off-site emergency plan prepared under rule 14 of the Manufacture, Storage and Import of Hazardous Chemicals Rules;</p> <p>j. "pipeline" means,- a pipe (together with any apparatus and works associated therewith) or system of pipes (together with any apparatus and works associated therewith) for the conveyance of a</p>	

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					hazardous chemical other than a flammable gas as set out in column 2 of Part 11 of Schedule 1, at a pressure of less than 8 bars absolute; k. "site" means,- any location where hazardous chemicals are manufactured or processed, stored, handled, used, disposed of and includes the whole of an area under the control of an occupier and includes pier, jetty or similar structure whether floating or not; l. "transport" means.- movement of hazardous chemicals by any means over land, water or air.	
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	In every room of a factory there shall be sufficient exits for safe escape of occupants under fire and emergency.  The exits shall be clearly visible and suitably illuminated in case of failure of normal source of electric supply.  The exits shall be marked in a language understood by the majority of the workers.	All

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<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Lifts, escalators and revolving doors shall not be considered as exits for use under emergency situations.</p> <p>All exits shall provide continuous means of egress to the exterior of a building or to an exterior open space leading to a street</p> <p>Exits shall be so located that the travel distance shall not exceed 30 meters. in case of factories where highly hazardous materials are stored or used, travel distance shall not exceed 22.5 meters.</p>	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	Every hoist way or lift way inside the facility shall be completely enclosed with fire resistant material, with the provision of a vent at the top.	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	Every stairway in the facility, which provides emergency access in case of fire, shall be provided with a substantial handrail on each open side of the stairway.	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	No fire escape stair shall be constructed at an angle greater than 45 degrees.	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	Fire resistant doors or roller shutters are to be provided along the escape routes to prevent the spread of fire and smoke, particularly at the entrance of lifts or stairs.	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	The minimum width of an internal staircase shall be 100	All

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					centimeters. The minimum width of treads without nosing shall be 25 centimeters for an internal staircase. The treads shall be constructed and maintained in a manner to prevent slipping	
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	The maximum height of a riser shall be 19cm and the number of risers shall be limited to 12 per flight. Firmly supported handrails with a minimum height of 100 centimeters shall be provided to the stairways	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	No ramps with slope of more than 1 in 10 shall be used in place of staircases. If at all they are used for any other purposes, they shall be surfaced with non-slipping material	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	In every room of a factory sufficient number of exits shall be provided to permit the safe escape of occupants in case of fire or emergency. These exits shall be maintained free from any obstruction	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	Exits shall be so placed that the travel distance to reach from any point on the floor is not more than 30 meters. In case of factories where high hazard materials are stored or used, the travel distance to the exit shall not exceed 22.5 meters.  There shall be at least two ways of escape from every room, except toilets, so located that	All



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					the point of access to these exits are protected from areas of high hazard.	
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	Every storage area shall have access to at least one means of exit which can be readily opened	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	No exit doorway shall be less than 100 cm in width and 200 cm in height	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	No exit door shall open immediately upon a flight of stairs. A landing at least 1.5m X 1.5m in size shall be provided in the stairway at each door way.	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	The exit doorways shall be openable from the side which they serve without the use of keys.	All
<b>Emergency Preparedness &amp; Response</b>	Factories Act, 1948	1948	1987	Department of labour	The installation of a fire alarm is required if the total capacity of the building is over 500 persons, or if more than 25 persons are employed above or below the ground floor. No manual alarm system is required in single storey buildings where the entire area is undivided and all parts thereof are clearly visible to all occupants.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) In every factory there shall be provided and maintained the following fire-fighting equipments:- (a) Two fire buckets of not less than 9 litres capacity for every 100 square metres of floor area subject to a minimum of four buckets on each floor. (b) Every bucket	All

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					provided under this sub-rule shall- (i) conform to appropriate Indian Standard Specification, (ii) be kept in a position approved by the Inspector and shall be used for no other purpose than fire extinguishing, and (iii) at all times be kept full of water but if the principal fire risk arises from inflammable liquid or other substances where water cannot be used, it shall be kept full of clean fine dry sand, stone dust or other inert material.	
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) Every portable fire extinguisher shall- (i) conform to the appropriate Indian Standards Specifications; (ii) be kept charged ready for use properly mounted in a position approved by the Inspector and accompanied by the maker's printed instructions for its use; and (iii) be examined, tested or discharged periodically in accordance with the maker's recommendation. Facility shall maintain sufficient number of spare charges for each type of extinguisher provided in the factory with a minimum of 12 spare charges always in stock and readily available.	All

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					- Each factory shall detail a trained officer who shall be responsible for the proper maintenance and upkeep of all fire-fighting equipments.	
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) All fire extinguishers shall be subjected to routine maintenance, inspection and testing to be carried out by property trained persons. Periodicity of the routine maintenance, inspection and test shall conform to the relevant Indian Standards.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) Adequate provision of water supply for firefighting purposes shall be made and where the estimated amount of water, required in liters per minute is more than 550 lpm or more, power driven trailer pumps (and associated equipments) of adequate capacity shall be provided and maintained	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) Trailer pumps shall be housed in a separate shed which shall be sited close to a principal source of water supplies in the vicinity of the main risk of the factory.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) Water supply shall be provided to give flow of water for at least 100 minutes. At least 50% of this water supply or 4,50,000 liters	All

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					whichever is less, shall be in form of static tanks of adequate capacities (not less than 4,50,000 liters each) distributed round the factory with due regard to the potential fire risks in the factory. Where piped supply is provided, the size of the main shall not be less than 15 centimeters diameter and it shall be capable of supplying a minimum of 4500 liters per minute at a pressure of not less than 7 kilograms per square centimeter.	
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) All trailer pumps including the equipment provided with them and the vehicles for towing them shall be maintained in good condition and subjected to periodical inspection and testing as required.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) All first aid and other fire fighting equipments shall be in charge of a trained responsible person.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) Simple and special instructions shall be framed to ensure that effective measures will be carried out in cases of emergency, to deal with possible escapes of inflammable explosive, toxic or deleterious gases, vapours, liquid or dusts. These instructions shall be in the language	All

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					understood by the majority of the workers and shall be displayed in bold letters at prominent places in the different sections concerned. All concerned workers shall be suitably trained and fully instructed in the prompt action to be taken in such emergencies and also in the general hazards encountered in this process.	
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) The buildings, plants, roads, passageways etc. on site should be so laid out and maintained that it facilitates unobstructed access for fire fighting.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) If fire is due to inflammable liquids or grease or paint, the extinguishers to be provided shall consist of foam carbon tetrachloride, dry powder, carbon dioxide, chlorobromo methane or other equivalent type, as appropriate. In case of inflammable liquids soluble in water, the extinguishers shall be alcohol type foam. Where fires may occur due to electrical equipment, the extinguisher to be provided at the scale laid in clause (i) shall consist of carbon dioxide, dry powder, carbon tetrachloride or equivalent types. If fire may occur due to magnesium, aluminium	All

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					or zinc dust or shavings or other ignitable metals, the use of liquids, carbon dioxide and foam type extinguishers shall be prohibited and an ample supply of clean, fine dry sand, stone dust or other inter material shall be kept ready for segregating such fires.	
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) All other extinguishers shall be charged appropriately in accordance with the instructions of the manufacturer.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) First-aid fire fighting equipment shall be mounted in a position approved by the Inspector.	All
<b>Fire Safety</b>	Factories Act, 1948	1948	1987	Department of labour	Section 38 (1) First aid fire fighting equipments shall be provided in each workplace, as prescribed under Schedule of Rule 71B of MFR, 1963	All
<b>Restricted Materials (e.g. Asbestos, PCBs, ODS)</b>	Factories Act, 1948	1948	1987	Department of labour	Section 87 Schedule XVII of Rule 114 of MFR, 1963 defines "Asbestos" as: "any fibrous silicate mineral and any admixture containing actionlite, amosite, anthophyllite, drysotile, crocidolite, tremolite or any mixture thereof, crude, crushed or opened"  Asbestos shall be used only when its risks can be prevented or controlled, otherwise, it	All

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					shall be replaced, when technically feasible, by other materials or the use of alternative technologies, scientifically evaluated as harmless or less harmful.	
<b>Restricted Materials (e.g. Asbestos, PCBs, ODS)</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 87 The number of persons assigned to work involving exposure to asbestos and the duration of their exposure shall be kept to the minimum required for the safe performance of the task;</p> <p>The area of activity which involve exposure to asbestos shall be clearly demarcated and indicated by warning signs restricting unauthorized access.</p> <p>Sufficient and suitable exhaust draught arrangements shall be provided whenever a process involving the emission of asbestos dust is undertaken.</p> <p>Arrangements shall be made to prevent asbestos dust discharged from exhaust apparatus being drawn into the air of any work room.</p> <p>The asbestos bearing dust removed from any workroom by the exhaust system shall be collected in suitable receptacles or fitter bags which shall be</p>	All

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					isolated from all work areas.	
<b>Restricted Materials (e.g. Asbestos, PCBs, ODS)</b>	Factories Act, 1948	1948	1987	Department of labour	Section 87 All loose asbestos shall, while not in use, be kept in suitable closed receptacles which prevent the escape of asbestos dust there from. Such asbestos shall not be distributed within a factory except in such receptacles or in a totally enclosed system of conveyance.	All
<b>Restricted Materials (e.g. Asbestos, PCBs, ODS)</b>	Factories Act, 1948	1948	1987	Department of labour	Section 87 Adequate and suitable PPE (Personal Protective Equipment) (including protective clothing, breathing apparatus etc. ) shall be provided to workers handling asbestos materials	All
<b>Restricted Materials (e.g. Asbestos, PCBs, ODS)</b>	Factories Act, 1948	1948	1987	Department of labour	Section 87 No young person shall be employed in any of the process covered by Schedule XVII of Rule 114 of MFR, 1963	All
<b>Restricted Materials (e.g. Asbestos, PCBs, ODS)</b>	Factories Act, 1948	1948	1987	Department of labour	Section 87 No person shall smoke in any area where processes covered by this schedule are carried on. A notice in the language understood by majority of the workers shall be posted in the plant	All



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					prohibiting smoking as such areas.	
<b>Restricted Materials (e.g. Asbestos, PCBs, ODS)</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 87 Cautionary notice shall be displayed at the approaches and along the parameter of every asbestos processing area to warn all persons regarding-</p> <p>(a) hazards to health from asbestos dust. (b) need to use appropriate equipment. (c) prohibition of entry to unauthorized persons or authorized persons but without protective equipment.</p>	All
<b>Restricted Materials (e.g. Asbestos, PCBs, ODS)</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 87 To ensure the effectiveness of the control measures, monitoring of asbestos fiber in air shall be carried out once at least in every shift and measured or calculated in terms of time-weighted average concentration and the record of the results so obtained shall be entered in a register specially maintained for the purpose of qualified person Membrane Filter Technique (MFT) shall be used for the measurement of the air borne asbestos fiber dust.</p> <p>The records of the monitoring of the working environment shall be kept for a period of not less than 30 years.</p>	All

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<b>Restricted Materials (e.g. Asbestos, PCBs, ODS)</b>	Factories Act, 1948	1948	1987	Department of labour	<p>Section 87</p> <p>The occupier shall employ a qualified medical practitioner for medical surveillance of the workers involved in handling of Asbestos materials</p> <p>The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.</p> <p>For detailed requirements of the Schedule XV please refer the rules.</p>	All
<b>Labour</b>	Factories Act, 1948	1948	1987	Labour Department	<p>This Act is applicable to all factories. The occupier shall, at least fifteen days before he begins to occupy or, use any premises as a factory, send to the Chief Inspector a written notice containing-</p> <ul style="list-style-type: none"> <li>•(a) the name and situation of the factory;</li> <li>•(b) the name and address of the occupier;</li> <li>•(bb) the name and address of the owner of the premises or building (including the precincts thereof ) referred to in section 93;</li> <li>•(c) the address to which communication relating to the factory may be sent;</li> <li>•(d) the nature of the</li> </ul>	All

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					<p>manufacturing process-</p> <ul style="list-style-type: none"> <li>◦(i) carried on in the factory during the last twelve months in the case of factories in existence on the date of the commencement of this Act, and</li> <li>◦(ii) to be carried on in the factory during the next twelve months in the case of all factories;</li> </ul> <ul style="list-style-type: none"> <li>•(e) the total rated horse power installed or to be installed in the factory, which shall not include the rated horse power of any separate standby plant;</li> <li>•(f) the name of the manager of the factory for the purposes of this Act;</li> <li>•(g) the number of workers likely to be employed in the factory;</li> <li>•(h) the average number of workers per day employed during the last twelve months in the case of a factory in existence on the date of the commencement of this Act;</li> <li>•(i) such other particulars as may be prescribed.</li> </ul>	
<b>Labour</b>	Factories Act, 1948	1948	1987	Labour Department	<p>Section 17</p> <p>1) In every part of a factory where workers are working or passing there shall be provided and maintained sufficient and suitable lighting, natural or artificial, or both.</p> <p>2) In every factory all glazed windows and skylights used for the lighting of the workrooms shall be</p>	All

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					<p>kept clean on both the inner and outer surfaces</p> <p>3) In every factory effective provision shall, so far as is practicable, be made for the prevention of-</p> <p>(a) glare, either directly from a source of light or by reflection from a smooth or polished surface;</p> <p>(b) the formation of shadows to such an extent as to cause eye-strain or the risk of accident to any worker.</p> <p>1) In every factory effective arrangements shall be made to provide and maintain at suitable points conveniently situated for all workers employed therein a sufficient supply of wholesome drinking water</p> <p>2) In every factory wherein more than two hundred and fifty workers are ordinarily employed, provision shall be made for cooling drinking water during hot weather by effective means and for distribution</p>	
<b>Labour</b>	Factories Act, 1948	1948	1987	Labour Department	<p>Section 18</p> <p>1) In every factory effective arrangements shall be made to provide and maintain at suitable points conveniently situated for all workers employed therein a sufficient supply of wholesome drinking water</p> <p>2) In every factory wherein more than two</p>	All

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					hundred and fifty workers are ordinarily employed, provision shall be made for cooling drinking water during hot weather by effective means and for distribution	
<b>Labour</b>	Factories Act, 1948	1948	1987	Labour Department	<p>Section 19</p> <p>1) In every factory, sufficient latrine and urinal accommodation of prescribed types shall be provided conveniently situated and accessible to workers at all times while they are at the factory;</p> <p>2) separate enclosed accommodation shall be provided for male and female workers;</p> <p>3) every factory wherein more than two hundred and fifty workers are ordinarily employed- all latrine and urinal accommodation shall be of prescribed sanitary types</p> <p>(a) the floors and internal walls, up to a height of 2* [ninety centimeters] of the latrines and urinals and the sanitary blocks shall be laid in glazed tiles or otherwise finished to provide a smooth polished impervious surface</p> <p>4) The floors, portions of the walls and blocks so laid or finished and the sanitary pans of latrines and urinals shall be thoroughly washed and cleaned at least once in every seven days with suitable detergents or</p>	All

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					disinfectants or with both.	
<b>Labour</b>	Factories Act, 1948	1948	1987	Labour Department	Section 20 1) In every factory there shall be provided a sufficient number of spittoons in convenient places and they shall be maintained in a clean and hygienic condition.	All
<b>labour</b>	Factories Act, 1948	1948	1987	Labour Department	Section 42 and 44 1) In every factory, adequate and suitable facilities for washing shall be provided and maintained for the use of the workers therein; 2) separate and adequately screened facilities shall be provided for the use of male and female workers 3) In every factory suitable arrangements for sitting shall be provided and maintained for all workers obliged to work in a standing position, in order that they may take advantage of any opportunities for rest which may occur in the course of their work.	All
<b>labour</b>	Factories Act, 1948	1948	1987	Labour Department	Section 46 and 47 1) in any specified factory wherein more than two hundred and fifty workers are ordinarily employed, a canteen or canteens shall be provided and maintained by the	All

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					occupier for the use of the workers. 2) In every factory wherein more than one hundred and fifty workers are ordinarily employed, adequate and suitable shelters or rest rooms and a suitable lunch room, with provision for drinking water, where workers can eat meals brought by them, shall be provided and maintained for the use of the workers	
<b>labour</b>	Factories Act, 1948	1948	1987	Labour Department	Section 62 1) The manager of every factory shall maintain a register of adult workers, to be available to the Inspector at all times during working hours, or when any work is being carried on in the factory, showing- - (a) the name of each adult worker in the factory; (b) the nature of his work; (c) the group, if any, in which he is included; (d) where his group works on shifts, the relay to which he is allotted; (e) such other particulars as may be prescribed:	All
<b>Human Resources Policy and Management</b>	Factories Act, 1948	1948	1987	Labour Department	Section 48 1) in every factory, wherein more than 30 women workers are ordinarily employed there shall be provided and maintained a suitable room or rooms for the use of children	All

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					under the age of 6 years of such women.	
<b>Human Resources Policy and Management</b>	Factories Act, 1948	1948	1987	Labour Department	Section 49 1) In every factory wherein five hundred or more workers are ordinarily employed the occupier shall employ in the factory such number of welfare officers as may be prescribed.	All
<b>Working Hours and Overtime</b>	Factories Act, 1948	1948	1987	Labour Department	Section 51, 53, 54, 55, 56, 57, 58, 59 and 61 1) No adult worker shall be required or allowed to work in a factory for more than forty-eight hours in any week. 2) No adult worker shall be required or allowed to work in a factory for more than nine hours in any day: 3) no worker shall work for more than five hours before he has had an interval for rest of at least half an hour 4) The periods of work of an adult worker in a factory shall be so arranged that inclusive of his intervals for rest, they shall not spread over more than ten and a half hours in any day 5) No adult worker shall be required or allowed to work in a factory on the first day of the week unless-- (a) he has or will have a holiday for a whole day on one of the three days immediately before or after the said day, and (b) the manager of the factory has, before the said day or the substituted day (c) Provided that no	All



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					<p>substitution shall be made which will result in any worker working for more than ten days consecutively without a holiday for a whole day.</p> <p>6) Where a worker is deprived of any of the weekly holidays he shall be allowed, within the month in which the holidays were due to him or within the two months immediately following that month, compensatory holidays of equal number of the holidays so lost.</p> <p>7) Where a worker in a factory works on a shift which extends beyond midnight:</p> <p>(a) for the purposes of sections 52 and 53, a holiday for a whole day shall mean in his case a period of twenty four consecutive hours beginning when his shift ends;</p> <p>(b) the following day for him shall be deemed to be the period of twenty-four hours beginning when such shift ends, and the hours he has worked after midnight shall be counted in the previous day.</p> <p>8) Work shall not be carried on in any factory by means of a system of shifts so arranged that more than one relay of workers is engaged in work of the same kind at the same time.</p> <p>9) Where a worker works in a factory for more than nine hours in any day or for more than forty eight hours in</p>	

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					any week, he shall, in respect of overtime work, be entitled to wages at the rate of twice his ordinary rate of wages. 10) There shall be displayed and correctly maintained in every factory, a notice of periods of work for adults, showing clearly for every day the periods during which adult workers may be required to work.	
<b>Employment and Working Conditions</b>	Factories Act, 1948	1948	1987	Labour Department	Section 66 1) no woman shall be 2*[required or allowed to work in any factory] except between the hours of 6 A.M. and 7 P.M.	All
<b>Protection of Workforce</b>	Factories Act, 1948	1948	1987	Labour Department	Section 67, 68, 71 1) Prohibition of employment of young children. No child who has not completed his fourteenth year shall be required or allowed to work in any factory. 2) A child who has completed his fourteenth year or an adolescent shall not be required or allowed to work in any factory unless-- (a) a certificate of fitness granted with reference to him under section 69 is in the custody of the manager of the factory, and	All

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					<p>(b) such child or adolescent carries while he is at work a token giving a reference to such certificate.</p> <p>3) No female adolescent or a male adolescent who has not attained the age of seventeen years but who has been granted a certificate of fitness to work in a factory as an adult, shall be required or allowed to work in any factory except between 6 A.M. and 7 P.M:</p> <p>4) No child shall be employed or permitted to work in any factory for more than 4 and a half hours in any day or during the night</p> <p>5) The manager of every factory in which children are employed shall maintain a register of child workers, to be available to the Inspector at all times during working hours or when any work is being carried on in a factory, showing-</p> <p>(a) the name of each child worker in the factory,</p> <p>(b) the nature of his work,</p> <p>(c) the group, if any, in which he is included,</p> <p>(d) where his group works on shifts, the relay to which he is allotted, and</p> <p>(e) the number of his certificate of fitness</p>	

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<b>Protection of Workforce</b>	Child Labour (Prohibition and Regulation) Act, 1986 and the Child labour (prohibition and regulation) rules 1988	1986	2015	department of labour	<p>1) To prohibit employment of children below 14 and 15 years of age and also to regulate the working conditions in which children are employed or if working under exploitative conditions.</p> <p>2) These laws are applicable to the labour employed also during the construction phase of the project.</p> <p>3) The Act prohibits employment of adolescents in hazardous occupations including inflammable substances and hazardous processes</p> <p>4) Every child employed in an establishment shall be allowed in each week, a holiday of one whole day, which day shall be specified by the occupier. The day so specified shall not be altered by the occupier more than once in 3 months</p> <p>5) Every occupier to an establishment who employs or permits to work any child shall within a period of 30 days from the date of such employment, send to the Inspector within whose local limits the establishment is situated, a written notice containing the following particulars:</p> <p>(a) The name and situation of the establishment</p> <p>(b) The name of the person in actual management of the establishment</p>	All

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					<p>(c) The address to which communications relating to the establishment should be sent</p> <p>(d) The nature of the occupation or process carried on in the establishment</p> <p>6) Every occupier shall maintain a register in respect of children employed or permitted to work in the establishment. This has to be available for inspection by an inspector at all times during the working hours or when work is being carried on in any establishment. This register should have the following details:</p> <p>(a) The name and date of birth of every child so employed or permitted to work</p> <p>(b) Hours and periods of work of any such child and the intervals of rest to which he is entitled</p> <p>(c) The nature of work of any such child</p> <p>(d) Such other particulars as may be prescribed</p>	
<b>Labour</b>	Equal Remuneration Act, 1976 (Amended 1987) and Equal Remuneration Rules 1976	1976	1987	department of labour	<p>1) No discrimination is to be made on the ground of sex in the matter of employment, wages and for matters connected therewith</p> <p>2) It shall be the duty of the employer to pay equal remuneration to men and women workers for same work or work of similar nature.</p> <p>3) Women personnel</p>	All

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					will not be discriminated against during recruitment.	
<b>labour</b>	Minimum Wages Act, 1948 and Minimum Wages Rules 1950	1948	NA	department of labour	<p>1) This is applicable on any employer who employs, directly or through another person, one or more employees in any scheduled employment in respect of which minimum rates of wages have been fixed under this act.</p> <p>2) Ensuring payment a minimum living wage to a worker, where applicable, in order to provide for bare subsistence and a basic standard of living with amenities including good health, education etc.</p> <p>3) Payment of wages below the fixed minimum wage rate accounts as forced labour.</p>	All
<b>labour</b>	Payment of Wages Act, 1936 and the Payment of Wages (Procedure) Rules, 1937	1936	2005	department of labour	<p>1) This Act was passed with the aim of regulating the payment of wages but excluding bonus/pension/PF/gratuity etc. to persons employed in any factory, either directly or indirectly through a sub-contractor.</p> <p>2) The Act holds the employer solely responsible for the payment of wages to the employees.</p> <p>3) The Act also specifies the need for a timeline for the wage payment, and the provisions for fines and deductions amongst other details pertaining to wages</p>	All

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					4) No wage period shall exceed one month	
<b>Labour</b>	Payment of Bonus Act, 1965 and the Payment of Bonus Rules, 1975	1965	NA	department of labour	1) This involves payment of bonus to persons in an establishment/factory in which twenty or more persons are employed. 2) Every employee shall be entitled to be paid by his employer in an accounting year, bonus, provided he has worked in the establishment for not less than thirty working days in that year. 3) Every employer shall be bound to pay to every employee a minimum bonus which shall be 8.33 per cent. of the salary or wage earned by the employee during the accounting year or one hundred rupees, whichever is higher, whether or not the employer has any allocable surplus in the accounting year	All
<b>Labour</b>	Payment of Gratuity Act, 1972 and Payment of Gratuity (central) Rules 1972	1972	2010	department of labour	1) To provide for a scheme for the payment of gratuity to employees of any establishment/factory (in which ten or more employees are employed). 2) Every employer shall obtain an insurance for his liability for payment towards the gratuity from the Life Insurance Corporation of India 3) Gratuity shall be payable to an employee on the termination of	All

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					his employment after he has rendered continuous service for not less than 5 years- (a) On his superannuation, or (b) On his retirement or resignation, or (c) On his death or disablement due to accident or disease 4) As soon as gratuity becomes payable, the employer shall determine the amount of gratuity and give notice in writing to the person to whom the gratuity is payable and also to the controlling authority specifying the amount of gratuity so determined	
<b>Labour</b>	the Employee State Insurance Act 1948, ESI Central Rules, 1950	1948	2010	department of labour	1) It applies to all non-seasonal factories 2) To provide benefits in case of sickness, maternity and employment injury' and to make provision for certain other matters in relation thereto. 3) All employees in factories or establishments to which this Act applies shall be insured in the manner provided by this Act. 4) The contribution payable under this Act in respect of an employee shall comprise contribution payable by the employer (hereinafter referred to as the employer's contribution) and contribution payable by the employee (hereinafter referred to as the employee's contribution) and shall	All



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					be paid to the Corporation.	
<b>Labour</b>	Employee Provident Fund and Miscellaneous Provisions Act, 1952 and Rules, 2015	1952	NA	department of labour	1) This Act is applicable to every factory or establishment employing 20 or more persons. 2) This Act requires the employer to provide for provident fund as under the scheme to the general public 3) The contribution which shall be paid by the employer to the Fund shall be ten percent. Of the basic wages, dearness allowance and retaining allowance, if any, for the time being payable to each of the employees whether employed by him directly or by or through a contractor, and the employee's contribution shall be equal to the contribution payable by the employer in respect of him and may, if any employee so desires, be an amount exceeding ten percent of his basic wages, dearness allowance and retaining allowance if any,	All
<b>Employment and Working Conditions</b>	Maternity Benefit Act, 1961, amended 2008 and Rules, 1961	1961	2008	department of labour	1) This act is applicable to every establishment being a factory, mine or plantation and shop or establishment in which 10 or more persons are employed or were employed on any day of the preceding 12 months. .	All

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					<p>2) no employer shall knowingly employ a woman in any establishment during the six weeks immediately following the day of her delivery or miscarriage.</p> <p>3) Also, no pregnant women shall, on a request being made by her, be required to do any work of arduous nature or which involves long hours of standing or which in any manner is likely to interfere with her pregnancy, result in miscarriage or interfere with the normal development of her foetus or impact her health in any negative manner.</p>	
<b>Labour</b>	Workmen's Compensation Act, 1923 and Rules, 1924	1923	2010	department of labour	1) Payment of compensation amount as applicable at the time of the accident resulting in a temporary or a permanent disablement such that it reduces the earning potential of workman in any employment. Or contracts an occupational disease peculiar to that employment	All
<b>Labour</b>	Employment Exchanges Act, 1959 and Rules 1960	1959	NA	department of labour	<p>1) This is applicable to any establishment with 25 or more persons are employed come within the purview of the Act.</p> <p>2) To provide for compulsory notification of any vacancies to the employment exchanges and for the rendition of returns relating to employment situation by the employers.</p>	All

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<b>Labour</b>	Shops and Establishment Act 1953	1953	NA	department of labour	<p>1) This is a state legislation act and each state has framed its own rules for the Act.</p> <p>2) The act lays down rules regarding working hours, guidelines for national holidays and rules of leave etc.</p> <p>3) The employer must send a statement in prescribed form along with prescribed fee to inspector of local area within 30 days of the commencement of the establishment, containing:</p> <p>(a) Name of employer or manager</p> <p>(b) The postal address of the establishment</p> <p>(c) Category of the establishment</p> <p>(d) Any other particulars as may be prescribed</p> <p>4) Any change in the statement submitted to the Inspector must be notified in prescribed form , including closing of establishment</p> <p>5) No employee is allowed to work more than 9 hours in a day or 48 hours in a week</p> <p>6) An employee may be allowed to work upto 3 hours a week over this limit and upto 26 hours of 6 days in a year for purposes of making of accounts, stock taking settlements</p> <p>7) No employee is allowed to work for more than 5 hours at a stretch unless he is given rest for half an hour in case the establishment is</p>	All

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					<p>engaged in manufacturing process and 1 hour in any other cases</p> <p>8) Every establishment shall remain close on any one day of the week</p> <p>9) No child may be allowed to work in any establishment</p> <p>10) No young person is allowed to work in any establishment for more than 3 hours in a day unless he has an interval of rest of atleast 30 mins</p> <p>11) No young person or women is allowed to work before 1.00am and after 7.00 pm in any establishment and to perform any such work as may be declared by the State Govt. to be involving danger of life, health or morale.</p> <p>12) Premises should be clean and free from effluvia arising from any drain or privy or other nuisance and shall be cleaned at such times and by such methods as may be described which may include, lime washing, color washing, painting, varnishing, disinfecting and deodorizing.</p> <p>13) Every establishment should be well lighted and 'd also provide prescribed precautions against fire.</p> <p>14) A first aid box should be maintained at every establishment where manufacturing process is carried out.</p> <p>15) An employee who has worked for not less</p>	

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					<p>than 3 months in a year is allowed for leave not less than 5 days for every 60 days on which he has worked and for a period of not less than 21 days for every 240 days on which he works during an year. Such leave may be accumulated for a maximum of 63 days.</p> <p>16) In addition every employee is entitled to:</p> <p>(a) casual leave for 7 days a year;</p> <p>(b) medical leave for 7 days a year;</p> <p>(c) leave for not more than 4 days a year on any of national or</p> <p>(d) festival holidays as specified by State Govt. These leaves are with wages.</p> <p>17) If an employee has been in continuous employment for not less than one year, employer can dispense his services only by giving minimum of 30 days' notice in writing or wages in lieu of such notice.</p>	
<b>Labour</b>	Indian Trade Union Act, 1926	1926	2001	Registrar of Trade Unions	1) This act deals with the registration of trade unions, their rights, their liabilities and responsibilities as well as ensures that their	All

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					funds are utilised properly. 2) This act is applicable not only to the union of workers but also to the association of employers.	
<b>Labour</b>	Industrial Disputes Act, 1947 and Industrial Disputes (Central) Rules 1957	1947	2014	department of labour	1) This law is applicable only to the organized sector in the context of an establishment. 2) No employer, who proposes to effect any change in the conditions of service applicable to any workman in respect of any matter specified in the Fourth Schedule, shall effect such change,-- (a) without giving to the workmen likely to be affected by such change a notice in the prescribed manner of the nature of the change proposed to be effected; or (b) within twenty-one days of giving such notice: 3) Where in any case, a Labour Court, Tribunal or National Tribunal by its award directs reinstatement of any workman and the employer prefers any proceedings against such award in a High Court or the Supreme Court, the employer shall be liable to pay such workman, during the period of pendency of such proceedings in the High Court or the Supreme Court, full wages last drawn by him, inclusive of any maintenance allowance	All

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					<p>admissible to him under any rule if the workman had not been employed in any establishment during such period and an affidavit by such workman had been filed to that effect in such Court</p> <p>4) it shall be the duty of every employer to maintain a muster roll and to provide for the making of entries therein by workmen who may present themselves for work at the establishment at the appointed time during normal working hours.</p> <p>5) No workman employed in any industry who has been in continuous service for not less than one year under an employer shall be retrenched by that employer until--</p> <p>(a) the workman has been given one month's notice in writing indicating the reasons for retrenchment and the period of notice has expired, or the workman has been paid in lieu of such notice, wages for the period of the notice:</p> <p>(b) the workman has been paid, at the time of retrenchment, compensation which shall be equivalent to fifteen days' average pay 2*[for every completed year of continuous service] or any part thereof in excess of six months; and</p> <p>(c) notice in the</p>	

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					prescribed manner is served on the appropriate Government 3*[or such authority as may be specified by the appropriate Government by notification in the Official Gazette].	
<b>Labour</b>	Persons with Disabilities Act, 1995 and Persons with Disability Rules 1996	1995	2014	Disability Rights Authority, Chief Commissioner for Persons with Disabilities	1) Give effect to the proclamation on the full participation and equality (equal opportunities) of people with disabilities and protection of rights 2) The employer in every establishment shall furnish such information or return as may be prescribed in relation to vacancies appointed for person, with disability that have occurred or are about to occur in that establishment to such Special Employment Exchange as may be prescribed and the establishment shall thereupon comply with such requisition. 3) Every employer shall maintain such record in relation to the person. With disability employed in his establishment in such form and in such manner as may be	All



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					<p>prescribed by the appropriate Government</p> <p>4) Every appropriate Government shall appoint in every establishment such percentage of vacancies not less than three per cent. for persons or class of persons with disability of which one per cent. Each shall be reserved for persons suffering from-</p> <p>(a) Blindness or low vision;</p> <p>(b) Bearing impairment;</p> <p>(c) Loco motor disability or cerebral palsy, in the posts identified for each disability:</p> <p>5) Provided that the appropriate Government may, having regard to the type of work carried on in any department or establishment, by notification subject to such conditions, if any, as may be specified in such notification, exempt any establishment from the provisions of this section.</p>	
<b>Nuisance &amp; Complaints</b>	Information Technology Act, 2000 and Information Technology Rules 2011	2000	2008	Cyber Appellate Tribunal, Adjudicating Officer	1) This act includes legal recognition of electronic documents and legal recognition of digital signatures in the context of any e-transactions in an establishment.	All
<b>Labour</b>	Official Secrets Act, 1923	1923	NA	Home Ministry	1) Prevent disclosure of any information that is likely to affect the sovereignty and integrity of India, the	All

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					security of state, or friendly relations with foreign states, is punishable.	
<b>Labour</b>	The Contract Labour (Regulation and Abolition) Act, 1970 and Central Rules 1975	1970	NA	department of labour	<p>1) The Act specifically applies to establishments employing more than twenty workers.</p> <p>2) The Act puts the onus on the principal employer to ensure that the provisions in the Act for the safety and welfare of the workers employed are upheld.</p> <p>3) Every principal employer of an establishment to which this Act applies shall, within such period as the appropriate Government may, by notification in the Official Gazette, fix in this behalf with respect to establishments generally or with respect to any class of them, make an application to the registering officer in the prescribed manner for registration of the establishment</p> <p>4) Every application for the grant of a license shall be made in the prescribed form and shall contain the particulars regarding the location of the establishment, the nature of process, operation or work for which contract labor is to be employed and such other particulars as may be prescribed.</p> <p>5) no contractor to whom this Act applies, shall undertake or</p>	All

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					<p>execute any work through contract labour except under and in accordance with a licence issued in that behalf by the licensing officer.</p> <p>6) wherein contract labour numbering one hundred or more is ordinarily employed by a contractor, one or more canteens shall be provided and maintained by the contractor for the use of such contract labour.</p> <p>7) in which work requiring employment of contract labour is likely to continue for such period as may be prescribed, there shall be provided and maintained by the contractor for the use of the contract labour such number of rest-rooms or such other suitable alternative accommodation within such time as may be prescribed.</p> <p>8) The rest rooms or the alternative accommodation to be provided shall be sufficiently lighted and ventilated and shall be maintained in a clean and comfortable condition.</p> <p>9) It shall be the duty of every contractor employing contract labour in connection with the work of an establishment to which this Act applies, to provide and maintain--</p> <p>(a) a sufficient supply of wholesome drinking</p>	

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					<p>water for the contract labour at convenient places;</p> <p>(b) a sufficient number of latrines and urinals of the prescribed types so situated as to be convenient and accessible to the contract labour in the establishment; and</p> <p>(c) washing facilities.</p> <p>10) There shall be provided and maintained by the contractor so as to be readily accessible during all working hours a first-aid box equipped with the prescribed contents at every place where contract labour is employed by him.</p> <p>11) Contractor shall be responsible for payment of wages to each worker employed by him as contract labour and such wages shall be paid before the expiry of such period as may be prescribed.</p> <p>12) Every principal employer shall nominate a representative duly authorized by him to be present at the time of disbursement of wages by the contractor and it shall be the duty of such representative to certify the amounts paid as wages in such manner as may be prescribed.</p> <p>13) Every principal employer and every contractor shall maintain such registers and records giving such particulars of contract</p>	

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					labour employed, the nature of work performed by the contract labour, the rates of wages paid to the contract labour and such other particulars in such form as may be prescribed.	
<b>Labour</b>	The Apprentices Act 1961 and Rules 1991	1961	2014	department of labour	1) the Act was enacted to supplement the programme of Industrial training with on-the-job training and to regulate the training arrangements in the Industry. The Act imposes statutory obligations on all employers in the notified industries to engage apprentices in the ratio prescribed for designated trades	All

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<b>Labour</b>	Building and Other Construction workers(regulation of Employment and Conditions of Service) act 1996 and Rules 2006	1996	NA	department of labour	<p>1) This act is geared towards providing protection to the labourers involved in a project against exploitation, preventing unacceptable forms of labour and ensuring that the labourers are provided with decent working conditions, which allow for the exercise of their rights.</p> <p>2) It applies to every establishment which employs, or had employed on any day of the preceding twelve months, ten or more building workers in any building or other construction work.</p> <p>3) Every employer shall make an application to the registering officer for the registration of the establishment:</p> <p>4) Where, after the registration of an establishment under this section, any change occurs in the ownership or management or other prescribed particulars in respect of such establishment, the particulars regarding such change shall be intimated by the employer to the registering officer within thirty days of such change in such form as may be prescribed</p> <p>5) Where any building worker is required to work on any day in excess of the number of hours constituting a normal working day he shall be entitled to</p>	All

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					<p>wages at the rate of twice his ordinary rate of wages.</p> <p>6) Every employer shall maintain such registers and records giving such particulars of building workers employed by him, the work performed by them, the number of hours of work which shall constitute a normal working day for them, in day of rest in every period of seven days which shall be allowed to them, tile wages paid to them, the receipts given by them and such other particulars in such form as my be prescribed.</p> <p>7) No person about whom the employer knows or has reason to believe that he is a deaf or he has a defective vision or he has a tendency to giddiness shall bc required or allowed to work in any such operation of building or other construction work which is likely to involve a risk of any accident either to the building worker himself or to any other person.</p> <p>8) The employer shall make in every place where building or other construction work is in progress, effective arrangements to provide and maintain at suitable points conveniently situated for all persons employed there in, a sufficient supply of</p>	

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					<p>wholesome drinking water.</p> <p>9) In every place where building or other construction work is carried on, the employer shall provide sufficient latrine and urinal accommodation of such types as may be prescribed and they shall be so conveniently situated as may be accessible to the building workers at all times while they are in such place</p> <p>10) The employer shall provide, free of charges and within the work site or as near to it as may be possible temporary living accommodation to all building workers employed by him for such period as the building or other construction work is in progress. The temporary accommodation shall have separate cooking place bathing, washing and lavatory facilities</p> <p>11) As soon as may be, after the building or other construction work is over, the employer shall, at his own cost, cause removal or demolition of the temporary structures erected by him for the purpose of providing living accommodation cooking place or other facilities to the building workers and restore the ground in good level and clean condition.</p> <p>12) In every place where in more them fifty</p>	



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					<p>female building workers are ordinarily employed, there shall be provided and maintained, a suitable room or rooms for the use of children under the, age of six years of such female workers</p> <p>13) Every employer shall provide in all the places where building or other construction work is carried on such first-aid facilities as may be prescribed.</p> <p>14) The employer shall need to provide and maintain in every place wherein not less than two hundred and fifty building workers are ordinarily employed, a canteen for the use of the workers</p> <p>15) An employer shall be responsible for payment of wages to each building worker employed by him and such wages shall be paid on or before such date as may be prescribed.</p> <p>16) An employer shall, at least thirty days before the commencement of any building or other construction work, send or cause to be sent to the Inspector having jurisdiction in the area where the proposed building or other construction work is to be executed, a written notice containing-</p> <p>(a) the name and situation of the place where the building or other construction work is proposed to be</p>	

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					<p>carried on;</p> <p>(b) the name and address of the person who is undertaking the building or other construction work;</p> <p>(c) the address to which communications relating to the building or other construction work may be sent;</p> <p>(d) the nature of the work involved and the facilities, including any plant and machinery, provided;</p> <p>(e) the arrangements for the storage of explosives, if any, to be used in the building or other construction work;</p> <p>(f) the number of workers likely to be employed during the various stages of building or other construction work;</p> <p>(g) the name and designation of the person who will be in overall charge of the building or other construction work at the site;</p> <p>(h) the approximate duration of the work;</p> <p>(i) such other matters as may be prescribed.</p>	
<b>Labour</b>	Inter-state Migrant Workers Act, 1979 and Rules 1980	1979	NA	department of labour	<p>1) This act is applicable to every establishment and contractor who employed 5 or more inter-state migrant workers on any day of the preceding 12 months. The purpose of this Act is to regulate the condition of service of inter-state labourers in the country by protecting the dignity of</p>	All

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					<p>life and interests of the workers.</p> <p>2) The Act requires for the migrant workers to be paid equal or better wages in comparison to the local workmen along with displacement allowance, home journey allowance, free residential accommodation and medical facilities.</p> <p>3) Every principal employer of an establishment to which this Act applies shall, within such period as the appropriate Government may, by notification in the Official Gazette, fix in this behalf with respect to establishments generally or with respect to any class of them, make an application to the registering officer, in such form and manner and on payment of such fees as may be prescribed, for the registration of the establishment:</p>	
<b>Labour</b>	Bonded Labour (Abolition) Act 1976 and Rules 1976	1976	1992	District Magistrate	1) the Act was aimed at abolishing the bonded labour system in the country. It freed all the bonded labourers from bondage and made the practice of bondage a cognizable offence punishable by law	All
<b>Labour</b>	The Employee's Compensation Act 1923	1923	2009	Department of labour	1) The employer should be liable to pay compensation to employees in case of injury by accident arising out of and in course of his	All

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					employment or where the employee contracts any occupational disease peculiar to the employment. This compensation is payable in cases where ESIC (Employee State Insurance Corporation) cannot be provided. This compensation is to be paid in all cases when the injury results in total or partial disablement of the worker for a period exceeding three days.	
<b>General Management</b>	The Companies Act 2013 and Rules 2014	2013	2015	Department of Public Enterprises, SEBI	1) This Act aims to protect and empower investors and other stakeholders while bringing in greater transparency in corporate governance. 2) This section is applicable on companies having a: (a) net worth of Rs 500 crore or more during any financial year, or (b) turnover of Rs 1000 crore or more, or (c) net profit of Rs 5 crore or more. 3) the companies meeting the threshold criteria specified should spend in every financial year, at least 2% of the average net profits of the company made during the three immediately preceding financial years, in pursuance of CSR Policy.	All
<b>Land</b>	Right to Fair Compensation and Transparency in Land Acquisition 2014	2014	2015	District Collector and Revenue Department	1) The Act is applicable to the land acquisition being undertaken for the purpose of industrialisation, urbanization and the	All

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	and Rules Rules 2014, Land Revenue Code of specific states				development of essential infrastructural facilities. 2) The aim of the Act is to ensure least disturbances to the owner of the land and other families and to ensure that the cumulative outcome of the acquisition should result in an improvement from the pre-acquisition status. 3) The state level wind energy policies require the state land revenue codes to be followed for the purpose of land procurement.	
<b>Rehabilitation and Resettlement</b>	National Policy for Rehabilitation and Resettlement 2007	2007	NA	District Collector and Revenue Department	1) The Policy outlines the minimum benefits to be ensured for persons displaced due to acquisition of land for public purposes for projects displacing 400 or more families en masse in the plains or 200 or more families in tribal or hilly areas. 2) According to this Policy, Social Impact Assessments are mandatory in projects where the policy is applicable. This is most specifically applicable in projects impacting large numbers of Scheduled Tribes people. 3) These projects thus include new projects, expansions of existing projects including involuntary displacement, projects falling in DDP Blocks or areas mentioned in the Schedule V or Schedule VI of the Constitution.	All

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<b>Non Discrimination and Equal Opportunity</b>	The Panchayati Raj (extended to Scheduled Areas) Act (PESA) 1996	1996	NA	Ministry of Tribal Affairs	<p>1) The PESA Act was enacted with the aim of enabling Tribal Self Rule in the tribal areas of the nine states having a Fifth Schedule status. The nine states are Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Maharashtra, Madhya Pradesh, Orissa and Rajasthan.</p> <p>2) This act requires that the Gram Sabha or Panchayats be consulted before acquiring land in the Scheduled areas for development projects and before resettling or rehabilitating people affected by such project in Schedule areas.</p> <p>3) This act gives the Gram Sabhas the power to prevent alienation of land in the Scheduled Areas and to take appropriate action to restore any unlawfully alienated land of a Scheduled Tribe</p>	All
<b>Non Discrimination and Equal Opportunity</b>	Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006	2006	NA	Ministry of tribal affairs	<p>1) The act is aimed at recognizing forest rights and vesting the same in the forest dwelling Scheduled Tribes and other traditional dwellers who have been residing in such forests for generations, but whose rights could not be recorded.</p> <p>2) According to the act, in case any forest land is required, then an NoC from the relevant Gram Panchayat or Sabha is required to ensure that no</p>	All

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					community or individual claims on the forest land will be affected.	
<b>Non Discrimination and Equal Opportunity</b>	Scheduled Castes and Scheduled Tribes (Prevention of Atrocities Act), 1989 and Rules 1995	1989	2014	Ministry of Tribal Affairs, Schedules Castes and Scheduled Tribes Protection Cell, Nodal Officer or Specific Officer	1) This is applicable in case of personnel/staff employed in an establishment or labourers employed during construction phases. 2) This act seeks to prohibit any discrimination and prevent atrocities on marginalized communities.	All
<b>Non Discrimination and Equal Opportunity</b>	Fifth Schedule of the Constitution of India	NA	NA	Ministry of Tribal Affairs, Schedules Castes and Scheduled Tribes Protection Cell, Nodal Officer or Specific Officer	1. The Fifth Schedule of the Constitution deals with the administration and control of Scheduled Areas as well as of Scheduled Tribes in States other than Assam, Meghalaya and Tripura. The features of the schedule are as follows: a) The Executive power of the Union shall extend to giving directions to the respective States regarding the administration of the Scheduled Areas. b) Tribes Advisory Councils are to be constituted to give advice on such matters as welfare and advancement of the Scheduled Tribes. c) The Governor is authorised to direct that any particular Act of Parliament or of the Legislature of the State shall not apply to a Scheduled Area or shall apply, only subject to	

E&S Topics	Title of the Legislation	Date of Promulgation	Date of Update	Competent Authority	Summary of the Legislation	Sector
					exceptions or modifications. d) The Governor is authorised to make regulations to prohibit or restrict transfer of land by or among the members of Scheduled Tribes, to regulate the allotment of land and the business of money-lending. All such regulations made by the Governor must have the assent of the President; e) Tribes Advisory Councils have to be constituted to advise the government on the matters relating to the welfare and advancement of the Schedules Tribes-these matters are those which may have been referred to the councils by the Governor;	
<b>Cultural heritage</b>	Ancient Monuments and Archaeological Sites and Remains Act 1958	1958	NA	Archaeological Survey of India	1) This Act places restrictions on the destruction, alteration, defacement or removal of monuments and on construction on or near the site of any protected monument. 2) No person, including the owner or occupier of a protected area, shall construct any building within the protected area or carry on any mining, quarrying, excavating, blasting or any operation of a like nature in such area, or utilise such area or any part thereof in any other manner without the permission of the Central Government	All



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<b>Wind power policy</b>	State Wise Wind Power Project policy	NA	NA	New and Renewable Energy Department	<p>1) Most states have put in place individual wind energy policies in order to govern the development of wind energy projects in their states. These policies provide details in terms of project allotment, development, approval and clearance process for projects, permission for land procurement and use, evacuation arrangements, transmission and distribution, sale of power, incentives of project development and terms and the process of regulatory monitoring of these projects</p> <p>2) These policies require the state wise land revenue code to be followed for the procurement of land. In case of requirement of Forest land, the provisions of the Forest (Conservation) Act 1980 and its rules are to be followed</p>	All