
ENVIRONMENT MANAGEMENT FRAMEWORK (EMF)

1.1 Scope and Objectives

1. Rajasthan Renewable Energy Corporation Limited (RREC) is designated to act as Nodal Agency for Clearance of Projects according to the Rajasthan Solar Policy, 2014. The main objectives of RREC are :
 - Registration of Projects
 - Approval of Projects
 - Facilitating allotment of Government Land
 - Facilitating Water allocation for Solar Thermal Power Plants
 - Facilitating approval of Power Evacuation plan & allocation of bays etc.
 - facilitating execution of PPA/WBA with Discoms of Rajasthan/RPVN/NVVN (as may be applicable)
 - Accreditation and recommending the Solar Power Project for registration with Central Agency under REC mechanism
2. The Environmental Management Framework (EMF) defines policy procedures, roles, and responsibilities for managing adverse environmental impacts/risks due to projects that are being established in Rajasthan. This EMF has been prepared as part of RREC's commitment to comply with the State/GOI's policies, law and regulations, as well as to follow ADB's specific safeguard policies related to ADB financed project.
3. The objectives of EMF are
 - (i) To avoid and to minimize adverse environmental impacts/risks due to projects that will receive finance from ADB, especially in environmentally sensitive locations or areas.
 - (ii) To ensure that adverse environmental impacts/risks are well-mitigated to achieve applicable environmental standards.
 - (iii) To comply with applicable state / GOI laws and regulations, and environmental safeguards requirements of A.D.B.
 - (iv) To provide guidance to project promoters in preparing projects for submission to RREC for functioning and for subsequent monitoring, reporting, and in undertaking corrective actions.

1.2. GOI's Environmental Policy and Regulatory Framework

4. GOI has the responsibility for protection and improvement of the environment, enshrined in Articles 48A and 51A (g) in the constitution under the 42nd amendment as adopted in January 1977. These articles provide that
 - (i) The state shall endeavour to protect and to improve the environment and safeguard forests and wildlife of the country (Article 48A).
 - (ii) Every citizen is bound to protect and improve the natural environment and to have compassion for living creatures [Articles 51A (g)].
5. The Ministry of Environment and Forests (MoEF) is the prime regulatory body of GOI for formulating environmental policies, laws and rules, and accords Environmental

Clearance (EC) for any developmental project as in schedule of the Environmental Impact Assessment (EIA) Notification dated 14 September 2006 under the Environmental (Protection) Act, 1986.

6. The following are the key operational principles of GOI's Environmental Policy and Regulatory Framework.

- (i) The EIA system is concerned primarily with assessing the direct and indirect impacts of a project on the biophysical and human environment and ensuring that these impacts are addressed by appropriate environmental protection and enhancement measures.
- (ii) The EIA system aids proponents incorporating environmental considerations in planning their projects as well as in determining the environment's impact on their project.
- (iii) Project proponents are responsible for determining and disclosing all relevant information needed for a methodical assessment of the environmental impacts of their projects.
- (iv) Review of the EIA by Central Regulatory Authority/State Environmental Impact Assessment Agency (SEIAA) is guided by the following criteria (i) that environmental considerations are integrated into the overall planning, and (ii) that the assessment is sound and the proposed environmental mitigation measures are effective.
- (v) Effective regulatory review of the EIA depends largely on timely, full, and accurate disclosure of relevant information by project proponents and other stakeholders in the EIA.
- (vi) Social interaction shall be conducted by the proponent for the project is a result of a meaningful public participation, which shall be assessed as part of the EC application, based on concerns related to the project's environmental impacts.

7. To achieve effective implementation of these operational principles, GOI updated its EIA Notification in September 2006.

8. A detailed description of the EIA and EC system of GOI is presented in Annex 1. The EMF of RREC captures the improvements of the new EIA notification, as and where applicable, by following process steps as stated in Annex 1.

9. RREC's (proposed)EMF is based on Rajasthan Government's/GOI's Environmental Policy and Regulatory Framework. This EMF, in addition to Rajasthan Government's/GOI's Environmental Policy and Regulatory Framework, considers the Environment Safeguard Systems (ESS) of ADB.

10. Adoption of GOI's environmental policy and regulatory framework with procedures appropriate to RREC, and a system of prioritized monitoring, audit, and disclosure will therefore lead to a safeguard system that is equivalent to the practices followed by the A.D.B.

1.3. Structure of RREC's EMF

11. As per the ESS at the DFIs (especially ADB), RREC is obligated to develop and operate an EMS with adequate institutional capacity to ensure satisfactory implementation of A.D.B's environmental safeguards.

12. Accordingly, an EMF needs to be developed, guided by an environmental policy and procedures that will ensure that all projects implemented by RREC are compliant to

applicable environmental laws and regulations and do not result into unmitigated and significantly adverse environmental impacts/risks.

13. Given the requirement of compliance and considering the comprehensiveness of GOI's EIA and EC system, RREC's EMF has been developed around GOI's environmental policy and regulatory framework. RREC's EMF follows project categorization as per GOI (e.g. A/B1/B2) and processes like scoping, public hearing, review, monitoring, and mainstreams key outcomes like Environmental Management Plans (EMPs) in project design and implementation.
14. In order to meet the requirements of ADB, RREC's EMF has been structured to reflect the following.
 - (i) Environmental and social policy
 - (ii) Operational steps viz environmental procedures as practiced in project processing and in the project life cycle
 - (iii) Annual environmental audit and its disclosure, if required
 - (iv) Allocation of responsibilities—especially between RREC and lead banks/Solar Power Producers
 - (v) Institutional structure to operate the EMF (To Be ADDED AS Per the decision taken after the agreement with ADB, Govt. of India & Rajasthan Government)
 - (vi) Capacity development plan especially for Solar Power Producers (To Be ADDED AS Per the decision taken after the agreement with ADB, Government of India & Rajasthan Government)

15. Each of the above key elements of the EMF is explained in the sections below.

1.4. Policy Statement of RREC's EMF

16. RREC is guided by following.

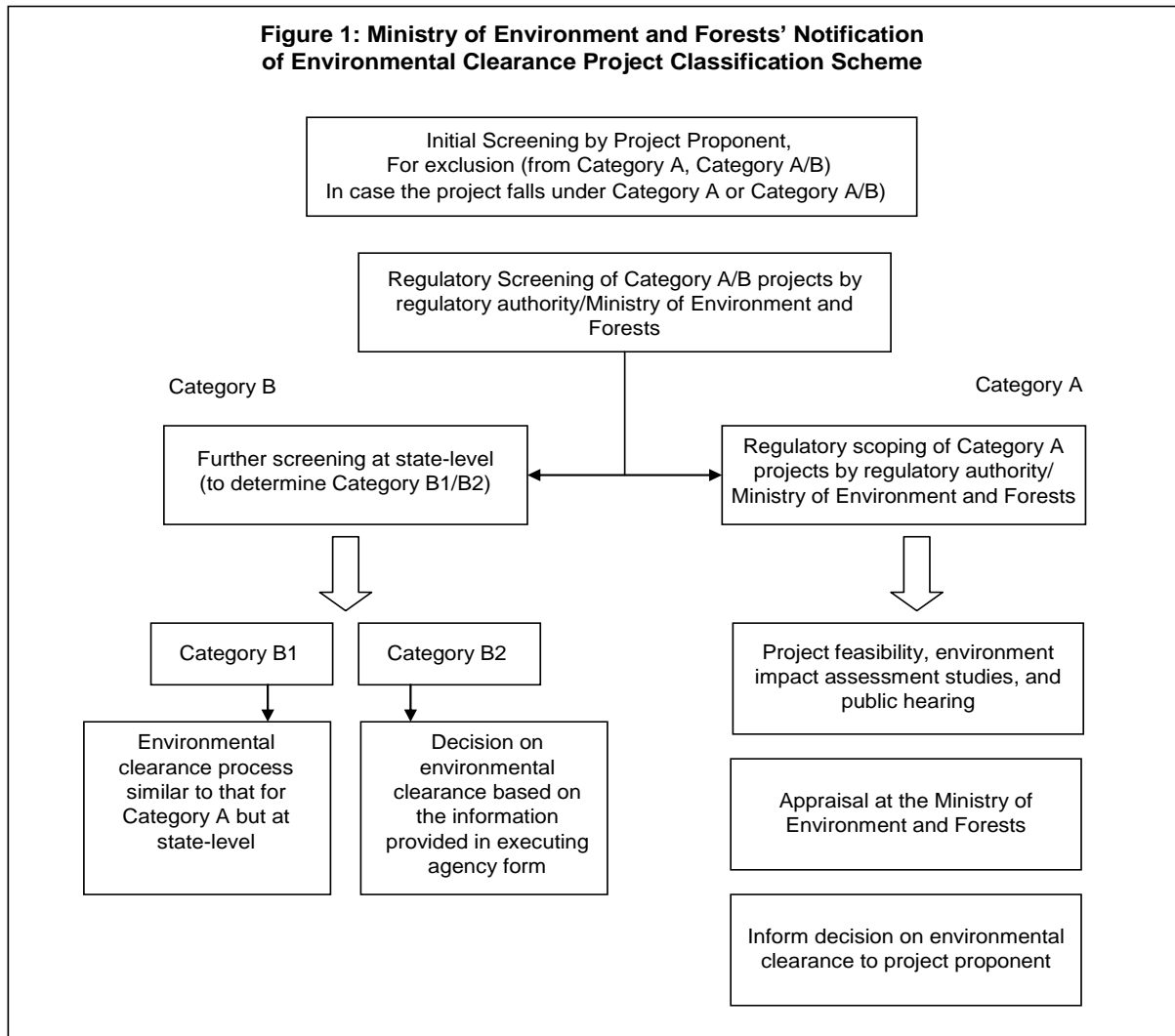
- (i) RREC gives due importance to Environmental and Social (E&S) regulations for considerations if required during appraising infrastructure projects to minimize adverse impacts and risks to the environment and people that may be affected.
- (ii) RREC is required to comply with all relevant E&S policy and legislative requirements and laws of the lands and remain responsive to the E&S requirements as stipulated, if any, by development partners (here A.D.B).

17. This policy statement emphasizes RREC's sensitivity and concern to environmental and social issues, commitment towards compliance, and responsiveness towards environmental and social requirements of its development partners.

1.5. Operational Steps of RREC's EMF

18. MoEF's notification on environmental clearance (EC) follows a project classification scheme as A, B1, and B2 (see Figure 1). This classification factors project type, size, and sensitivity of location (see Annex 2). RREC's EMS will use this categorization to prioritize the appraisal and monitoring process followed by the EMS.
19. As explained in Annex 2, projects under category A and B1 require EIA and are processed for EC at MoEF and state-level, respectively. Category B2 does not require EIA but needs information to be submitted in a prescribed format to the State Department of Environment for review. Projects under category B1 may get re-

categorized into 'A' if general conditions (GCs) are violated that consider site sensitivity.



20. The operational steps of RREC's EMF consider 2 scenarios

CASE A: Projects that have been appraised and earmarked under A.D.B before establishment and operation of EMF.

CASE B: Projects that are not yet committed for finance under ADB loan and will undergo EMF.

21. **Case A.** Projects that have been appraised and earmarked under A.D.B before establishment and operation of EMF. For this case, below are the following steps.

- (i) Categorize subprojects as per A/B1/B2 following guidelines of MoEF as in the latest EIA notification. Refer to Annex 2.
- (ii) Categorize subprojects as per ESS guidelines. If there is more than one development partner and if the categorization differs, then assign strictest of the categories.

- (uu) If there is a difference between categorization carried out by MoEF's EIA notification and categorization by the framework, then the strictest amongst the two categories will be followed.
- (uw) Wherever there is no clear guidance available in MoEF's EIA notification for subproject categorization, then the EMF scheme of categorization will be followed.
- (ux) Check whether environmental compliance¹ has been obtained by project proponent and suggest necessary action, if required for compliance.
- (uy) Identify gaps, if any, on environmental compliance. If there are no gaps, then review the EIA reports and adequacy of Environmental Management Plans (EMPs). See Annex 7 as guidance. For Category A and B1 projects, include field visit of environmental specialist.
- (uz) If there are gaps on environmental compliance, then direct lead banks/Solar Power Producer time targeted actions to attain compliance. Hold execution until compliance is achieved.
- (v) Monitor and review whether the agreed gap-filling measures are satisfactorily met in the stipulated time. If there is a consistent default, then cancel any further execution.
- (v1) For compliant projects, if review of EMP shows its adequacy and appropriate reflection in the project costs, then update legal documents to reflect applicability of RREC's EMF as binding during the period of engagement. Take appropriate approval of the board.
- (v2) If review of EMP shows its inadequacy and/or inappropriate reflection in project costs, then update PIM as well as redo financial appraisal to reflect on strengthened/improved EMP. Re-assess commercial viability of the project.

- (i) See Appendices 4, 5, 6, and 7 for applicable laws and regulations. Focus should be to verify consents from SPCB (consent to establish and operate), environmental clearance from State Department of Environment/MoEF, CRZ, and forest clearances, if applicable, and whether processes and procedures, especially related to public consultation and disclosure (e.g. public hearing) are correctly followed. On public consultation and disclosure, RREC will ensure the subproject proponent conducts consultation with affected groups and local NGOs at least twice during subproject preparation—once during the early stage of EA preparation and when the draft EA report is available. Consultation should also be ongoing during implementation. To facilitate the required consultations with project-affected groups and local NGOs, RREC will ensure that the subproject proponent provides relevant information on the subproject's environmental issues in a form and language(s) accessible to those being consulted. RREC will also ensure compliance with the 120-day disclosure requirement for category A or B subprojects deemed sensitive. Compliance should also address conformity with the standards and approaches recommended by the Pollution Prevention and Abatement Handbook of the World Bank. In case of the subproject EA report, recommend adoption of alternative emission levels and approaches to pollution prevention and abatement to best reflect national legislation and local conditions, the EA report must justify the levels and the approaches chosen for the project or site.

22. **Case B.** Projects that will be appraised under A.D.B finance after the adoption of RREC's EMF. Following steps will be followed by RREC in carrying out the requirements of EMF for projects that are not yet committed.

- (i) Categorize subprojects as per A/B1/B2 following guidelines of MoEF as in the latest EIA notification. Refer to Annex 2.
- (ii) Categorize subprojects as per ESS guidelines. If there is more than one development partner and if the categorization differs, then assign strictest of the categories.
- (iii) If there is a difference between categorization carried out by MoEF's EIA notification and categorization by the EMF, then the strictest amongst the 2 categories will be followed.
- (iv) Wherever there is no clear guidance available in MoEF's EIA notification for subproject categorization, then the EMF's scheme of categorization will be followed.
- (v) Check whether environmental compliance² has been obtained by project proponent and suggest necessary action, if required for compliance.
- (vi) Identify gaps, if any, on environmental compliance. If there are no gaps, then review the EIA report and adequacy of Environmental Management Plans (EMPs). See Annex 7 as guidance. For Category A and B1 projects, include field visit of environmental specialist.
- (vii) If there are gaps on environmental compliance, then direct lead banks/solar power proucers time targeted actions to attain compliance. Hold preparation of memo to the board until satisfactory compliance is achieved
- (viii) For compliant projects, review EMP for its adequacy and appropriate reflection in the project costs. If EMP is satisfactory, then prepare memo to the board with any additional recommendations. Ensure that legal documents reflect applicability of 's EMF as binding during the period of engagement. Take appropriate approval of board.
- (ix) If review of EMP shows its inadequacy and/or inappropriate reflection in project costs, then direct the lead banks/SPV to update PIM as well as redo

2

See Appendices 4, 5, 6, and 7 for applicable laws and regulations. Focus should be to verify consents from SPCB (consent to establish and operate), environmental clearance from State Department of Environment/MoEF, CRZ, and forest clearances, if applicable, and whether processes and procedures, especially related to public consultation and disclosure (e.g. public hearing) are correctly followed. On public consultation and disclosure, RREC will ensure the solar power producer conducts consultation with affected groups and local NGOs at least twice during subproject preparation—once during the early stage of EA preparation and when the draft EA report is available. Consultation should also be ongoing during implementation. To facilitate the required consultations with project-affected groups and local NGOs, RREC will ensure that the solar power producer provides relevant information on the project's environmental issues in a form and language(s) accessible to those being consulted. RREC will also ensure compliance with the 120-day disclosure requirement for category A or B subprojects deemed sensitive. Compliance should also address conformity with the standards and approaches recommended by the Pollution Prevention and Abatement Handbook of the World Bank. In case of the solar power producer's EA report, recommend adoption of alternative emission levels and approaches to pollution prevention and abatement to best reflect national legislation and local conditions, the EA report must justify the levels and the approaches chosen for the project or site.

financial appraisal to reflect on strengthened/improved EMP. Assess commercial viability of the revised project. Prepare memo to the board on this basis. Ensure that legal documents that reflect applicability of RREC's EMF as binding during the period of engagement.

23. For both cases

- (i) Based on categorization of the projects that are financed (i.e. A/B1/B2), conduct monitoring of compliance and effectiveness of the EMP.
- (ii) Conduct independent annual environmental audit , if required and report to the development partners.

1.6. Institutional Structure to Operate the EMF³

24. Considering the operational steps of EMS, it is proposed to set up an Environmental and Social Management Unit (ESMU) at RREC. ESMU will be supported by a consultant who will have least 10 years of experience in conducting/reviewing environmental and social assessments. Familiarity with GOI regulations and procedures will be essential and exposure to ESS at DFIs will be desirable.

25. In order to assist in the review and preparation of memos to the board, ESMU will draw specialists under a contract with a competent Project Management Consultant (PMC-I). PMC-I will be identified through competitive bidding. PMC-II will provide one full-time environmental and one full-time social assessment specialist. These two specialists will work at RREC and report to the ESMU Head. The environmental specialist should have masters in environmental science/engineering/planning with at least five years of experience. Previous experience in preparing EIAs and obtaining EC at center and state-levels for infrastructure projects will be essential. The social assessment specialists will have masters in social development and allied areas with at least five years of experience in the preparation of Resettlement Action Plans (RAP) and Indigenous Peoples Development Plans (IPDP). These specialists will deliver the following services.

- (i) Conduct compliance review.
- (ii) Check adequacy and effectiveness of EMPs/RAPs/IPDPs.
- (iii) Develop conditions as loan covenants that stipulate requirements or outcomes of EMP/RAP/IPDPs.
- (iv) Prepare memo for the board on this basis.
- (v) Prepare sector specific checklists, guidelines, monitoring, and reporting formats to strengthen EMS. These guidelines will make use of the materials developed by GOI and DFIs (Appendices 9, 10, 11, 12, 13, and 14 illustrate such guidance materials of relevance to lead banks/sub borrowers. PMC-I will build a compendium to this effect and provide to the lead banks/sub borrowers).
- (vi) Coordinate with field environmental and social specialists for assessment, monitoring, and review as required.
- (vii) Coordinate with lead banks/sub borrowers to support independent environmental and social auditors (PMC-II) for preparing RREC's Annual Environmental and Social report.

³ This has been developed with the assumption that an Environment & Social Management Unit will be established within the RREC to look after the implementation of Safeguards. But, it can be fine tuned only after a decision is taken in this regard by RREC in consultation with the Rajasthan's Energy Department(Govt. of Rajasthan) & A.D.B

- (viii) Prepare progress and performance reports for various development partners.
- (ix) Coordinate with training specialists provided by PMC-I to conduct training program for lead banks/solar power producer on project processing under EMS/Social Safeguards Framework (SSF).
- (x) Update EMS/SSF based on operational experience.

26. PMC-I will support the ESMU on a need basis for the following.

- (i) Conduct field visits for assessments, monitoring, and reviewing (especially for category A and B1 projects).
- (ii) Conduct awareness and training program on RREC's EMF for lead banks/solar power producer.

27. This support will not be in-house but provided using the pool of resources available at PMC-I.

1.7. Conduct of Annual Environmental Audit and its Disclosure

28. RREC will conduct annual environmental and social audit through independent consultants (PMC-II). The audit process will consider project categories for better focus and optimization.

29. The PMC will conduct an annual environmental and social audit with the help of Senior Environmental and Social Specialists using a combination of data reported by lead banks/subborrowers and field visits. The audit will take place in the months of January to March every year.

30. PMC will issue monitoring formats to all lead banks/solar power producer. PMC will supplement this information through field visits, where necessary, and verify submitted information. Specialists from PMC-I will be accompanied by a representative of lead bank/solar power producer during the field visits. PMC-II will prepare the annual environmental and social audit report with observations and recommendations especially if corrective actions are needed. This report will be finalized by the ESMU Head and will be submitted to the board along with actions proposed for corrective actions, if any. After board's approval, this report will be included in the annual report of RREC. A soft copy of this report will be kept on RREC's website. Annex 14 presents a typical Audit Recording Sheet. Annex 15 lists typical monitoring and report and reporting formats.

1.8. Reporting to Development Partners' Requirements

31. Apart from the annual environmental audit reports, RREC will need to prepare reports, from time to time, as required by various development partners. While making Periodic Finance Request (PFR) to ADB, for instance, reporting on environmental performance of past subprojects and correction action plans are required/proposed apart from management of environmental issues of proposed subprojects that are under preparation.

32. Such reports will be prepared by the ESMU of RREC, in consultation with the development partners, under the support of PMC-I, building on the regular monitoring and review process under EMF as well as annual environmental audit. Annex E-17 provides a reporting format.

33. Appendices 14 and 15 provide an outline of terms of references (ToRs) for contracting PMC-I and PMC-II considering their functions and roles from Sections VII to XI. RREC will call for bids from reputable environmental consulting organizations and recruit PMC-I and PMC-II. The contracts will be valid for a period of 3 years but tenable only based on performance indicators. RREC will have every right to ask for replacement of staff, if so desired.

1.9. Mainstreaming EMF in RREC’S Project Processing

34. RREC will mainstream the EMS described above in its business process.

1.9.1. Allocation of Responsibilities

35. Proposals to RREC will typically arise from lead banks/designated lead syndicator and solar power producer. Lead Bank means an FI that is funding the project and is designated as such by the inter-institutional group or consortium of FIs provided the risk exposure of RREC is less than that of the lead bank in a project.

36. The lead bank/designated lead syndicator and solar power producer shall present its appraisal of the project for the consideration of RREC. RREC will not normally be required to carry out any independent appraisal of the project. Hence, lead banks/designated lead syndicator and solar power producer will be expected to provide RREC all the required documentation (consents, clearances, EIA reports) in line with the requirements of RREC’s EMS.

37. Similarly, the lead banks/designated lead syndicator and solar power producer shall be responsible for regular monitoring and periodic evaluation of compliance of the project with agreed milestones and performance levels. It shall send periodic progress reports in such form and, at such times, as may be prescribed by RREC. The lead banks/designated lead syndicator and solar power producer will therefore be responsible to report environmental compliance of the project to RREC in the formats as prescribed by the EMF. Table 1 summarizes allocation of responsibilities on this basis.

Table 1: Allocation of Responsibilities

Tasks	Primary Responsibility	Secondary responsibility
Submit all documentation related to environmental consents, clearances, etc. and EIA/EMP reports	Lead Bank/solar power producer	
Check environmental compliance	ESMU/RREC	PMC
Check adequacy and effectiveness of EMP	ESMU/RREC	PMC
Update PIM and EMP; conduct financial appraisal	ESMU/RREC	PMC
Specify conditionalities and update legal document	ESMU/RREC	PMC
Prepare memo to RREC Board	ESMU/RREC	
Implement EMP	Lead Bank/solar power producer	
Conduct monitoring	Lead Bank/solar power producer	
Meet environmental compliance	Lead Bank/solar power producer	
Conduct monitoring and evaluation	ESMU/RREC	PMC, Lead Bank/solar power producer
Conduct annual environmental audit and disclose the annual environmental audit report	ESMU/RREC	PMC, Lead Banks/solar power producer
Conduct awareness and training	ESMU/RREC	PMC

EIA = Environmental Impact Assessment, EMP = Environmental Management Plan, EMS = Environmental Management System, ESMU = Environment and Social Safeguards Management Unit, RREC = Rajasthan Renewable Energy Corporation Limited, PIM = project information memorandum, PMC = Project Management Consultant.

38. Since the effectiveness of RREC's EMS depends considerably on the understanding and preparedness of lead banks/designated lead syndicator and solar power producer, it is important that RREC makes effort to sensitize the lead banks/solar power producer on management of environmental and social issues, provides guidance, and encourages them to build requisite capacities.
39. RREC, with the assistance of PMC, will offer lead banks/designated lead syndicator and solar power producer a short program (1 to 2 days duration), at least 2 times a year, to explain RREC's EMF, its importance and benefits. It will further encourage lead banks/solar power producer in particular to consider adopting the proposed EMS. RREC may, on this basis, provide incentives e.g. tapered monitoring and/or fast track project processing when proposals are received/approved as arising from lead banks/solar power producer that follow EMF equivalent to RREC in their operations.
40. Annex 15 provides an outline of sample training program for lead banks/solar power producer.

1.9.2. EMF Update

41. RREC's EMF will be maintained on its website for the purposes of sharing and towards receiving any comments or suggestions.
42. The EMF will be reviewed each year, especially after the results of annual environmental and social audit. Based on the experience gained and considering further changes, if any, in GOI's environmental policy and regulatory framework or in the ESS of DFIs, the EMF document will be appropriately updated. This task will be the responsibility of RREC's ESMU.

1.10. Monitoring and Evaluation

43. Monitoring and evaluation requirements will be defined as part of each I.E.E and/or E.I.A. In addition, each subborrower will engage an external independent monitoring agent to undertake external monitoring of the plan(s). Reporting and monitoring formats will be prepared for both internal and external monitoring. Annual external monitoring reports will be submitted to the lenders. One key function of the external monitoring would be to ascertain whether any unanticipated impacts on tribal peoples or unanticipated resettlement effects become apparent during project implementation. In such cases, the external monitor would assist the solar power producer to assess the significance of the impacts and identify measures to mitigate any adverse impacts and ensure that benefits accrue to the tribal peoples. RREC's EMU would be informed of and review such measures and their implementation. The external monitor would also certify compliance with the requirements of the I.E.E and/or E.I.A. The EMU will prepare an annual report to participating development partners summarizing
 - (i) Progress reports based on each solar power producer's operations which have IR impacts and/or impacts on tribal people
 - (ii) List of pipeline investments with likely environmental impacts, for the forthcoming year