

**ENVIRONMENTAL AND SOCIAL SAFEGUARDS FRAMEWORK (ESSF)**  
**India Infrastructure Financing Company Limited (IIFCL)**

**I. Introduction**

**A. About IIFCL**

1. IIFCL was incorporated on 5 January 2006 under the Companies Act 1956 as a wholly government-owned company.

2. IIFCL is an apex financial intermediary for purposes of the development and financing of infrastructure projects and facilities in the country. IIFCL renders financial assistance through

- (i) Direct lending to eligible projects
- (ii) Refinance to banks and financing institutions (FIs) for loans with a tenor of 5 years or more
- (iii) Any other method approved by the Government of India (GOI)

3. IIFCL is adopting a focused approach by addressing projects from the following sectors.

- (i) Roads & bridges, railways, seaports, airports, inland waterways, other transportation projects
- (ii) Power
- (iii) Urban transport, water supply, sewerage, solid waste management, and other physical infrastructure in urban areas
- (iv) Gas pipelines
- (v) Infrastructure projects in special economic zones
- (vi) International convention centres, other tourism-related infrastructure
- (vii) Infrastructure projects in Special Economic Zones
- (viii) Other infrastructure projects, as may be determined from time to time

4. In order to be eligible for funding under the “Scheme for Financing Viable Infrastructure Projects through the India Infrastructure Finance Company Limited” (the Scheme), a project shall meet the following criteria:

- (i) The project shall be implemented (i.e., developed, financed, and operated for the project term) by
  - (a) a public sector company
  - (b) a private sector company selected under a private-public partnership (PPP) initiative
  - (c) a private sector company
- (ii) Provided that the Special Purpose Vehicle (SPV) shall assign overriding priority to PPP projects that are implemented by private sector companies selected through a competitive bidding process.
- (iii) Provided further that a private sector company, other than that defined in the first proviso above, would not be eligible for direct lending by the SPV and may be funded only through the refinance mode (see Annex 1, Schedule 4, Framework Financing Agreement for amendment).
- (iv) The total lending for such private projects shall not exceed 20% of the lending program of the SPV in any accounting year. The eligibility for direct lending and/or raising the limit of 20% will be reviewed at the end of one year having regard to the progress made in funding public sector and PPP infrastructure

projects (see Annex 1, Schedule 4, Framework Financing Agreement for amendment).

5. IIFCL shall finance only commercially viable projects.
6. The ESSF shall be composed of the Environmental Management System Framework (EMS) and the Social Safeguards Framework (SSF).
7. Both the EMS and SSF are applicable for all subprojects financed from Asian Development Bank (ADB) resources by IIFCL, through direct lending and refinance operations and to both public and private sector companies. All lead banks and subborrowers interested in seeking financial assistance from IIFCL, where finance from ADB is used, will therefore need to conduct business in a manner such that IIFCL can be compliant with this EMS and SSF.

#### **B. Purpose of the EMS**

8. The Environmental Management System (EMS) Framework defines policy procedures, roles, and responsibilities for managing adverse environmental impacts/risks due to projects that are financed by IIFCL.
9. This EMS has been prepared as part of IIFCL's commitment to comply with the GOI's policies, law and regulations, as well as to follow the development partners' (e.g., ADB, World Bank, Kreditstalt für Wiederaufbau (KfW), and Japan Bank for International Cooperation (JBIC)) safeguard policies.

#### **C. Purpose of the SSF**

10. The Social Safeguards Framework (SSF) defines and outlines policies, procedures, roles, and responsibilities for managing involuntary resettlement (IR) impacts and risks, and effects on indigenous (tribal) peoples of subprojects that are financed by IIFCL through the India Infrastructure Project Financing Facility (the Facility).
11. This SSF is a part of the commitment of IIFCL to comply with the GOI's policies, law and regulations, and to comply with external lenders/development partners' (e.g. ADB, World Bank, KfW, and JBIC) safeguard policies ("Lenders' policies"). The SSF provides guidelines for the Environmental and Social Safeguards Management Unit (ESMU) to be established by IIFCL to fulfill the social commitments.

## **II. Environmental Management System (EMS)**

### **A. Objectives of EMS**

12. The objectives of EMS are
  - (i) To avoid and to minimize adverse environmental impacts/risks due to projects that will receive finance from IIFCL, 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 GOI state laws and regulations, and environmental safeguards requirements of development partners.
  - (iv) To provide guidance to lead banks/designated lead syndicator and subborrowers in preparing projects for appraisal at IIFCL and in conducting subsequent monitoring, reporting, and in undertaking corrective actions.

## B. GOI's Environmental Policy and Regulatory Framework

13. GOI has the responsibility for protection and improvement of the environment, enshrined in Articles 48A and 51A (g) in the constitution under the 42<sup>nd</sup> amendment as adopted in January 1977. These articles provide that

- (i) The state shall endeavor 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)].

14. 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.

15. 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.

16. To achieve effective implementation of these operational principles, GOI updated its EIA Notification in September 2006. Table 1 provides highlights of the major improvements.

**Table 1: Major improvements in New EIA notification 2006 as compared to old notification (1994)<sup>1</sup>**

EIA Notification 2006	EIA Notification 1994 (including amendments)
<b>Decentralization of Clearance Process.</b>	Projects Proponent desiring to undertake any project

<sup>1</sup> This comparison is based on info.

EIA Notification 2006	EIA Notification 1994 (including amendments)
<p>in Schedule 1 have been divided into two categories, category A and B. Category A project will require clearance from the central government (MoEF). Category B will require clearance from the state government. State governments will first classify if the B project falls under B1 or B2 category. B1 projects will require preparation of EIA reports while remaining projects will be termed as B2 projects and will not require EIA report.</p>	<p>listed in Schedule 1 had to obtain clearance from the central government.</p>
<p><b>Screening Process.</b> Well-defined screening process with projects divided into two categories.</p>	<p>The project proponent assesses/screens if the proposed activity/project falls under the purview of environmental clearance, than the proponent conducts an EIA study either directly or through a consultant.</p>
<p><b>Scoping Defined.</b> The new notification defines and includes scoping. The entire responsibility of determining the Terms of Reference (ToR) will depend on the Expert Appraisal Committee. This will be done in cases of Category A and Category B1 projects. The final ToR shall be displayed on the website of the MoEF and concerned State/Union Territory Environment Impact Assessment Authority (SEIAA).</p>	<p>Scoping was not applicable. The ToR was completely decided by the proponent without any public consultation.</p>
<p><b>Public Consultation.</b> All Category A and Category B1 projects or activities have to undertake public consultation except for six activities for which public consultation has been exempted. Some of the projects exempted include expansion of roads and highways, modernization of irrigation projects, etc. Some of these may have potential social and environmental impacts.</p>	<p>The project proponent has to write to SPCB to conduct public hearing.</p>
<p>The responsibility for conducting the public hearing still lies with the state PCBs.</p>	<p>The state boards would be responsible for publishing notices for environmental public hearings in at least two newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned.</p>
<p>The public consultation will essentially consist of two components—a public hearing to ascertain the views of local people and obtaining written responses of interested parties.</p>	
<p>The notification makes provision that MoEF shall promptly display the summary of draft EIA report on its website and also make the full draft EIA available in the ministry's library at New Delhi for reference.</p>	
<p>No postponement of the time, venue of the public hearing shall be undertaken, unless some untoward emergency situation occurs and only on the recommendation of the concerned district magistrate. This was not a part of the earlier notification.</p>	
<p>The SPCBs or Union Territory Pollution Control Committee shall arrange to video film the entire proceedings. This was also absent in the earlier notification and may be considered as a good move to ensure that public hearing is proper.</p>	

EIA = Environment Impact Assessment, MoEF = Ministry of Environment and Forests, PCB = pollution control board, SEIAA = State/Union Territory Environment Impact Assessment Authority, SPCB = State Pollution Control Boards, ToR = terms of reference.

17. A detailed description of the EIA and EC system of GOI is presented in Appendix 1. The EMS of IIFCL captures the improvements of the new EIA notification by following process steps as stated in Appendix 1.

### C. Commonality of GOI'S Framework with Environmental Safeguard Systems of Development Financing Institutions (DFIs)

18. IIFCL'S EMS is based on GOI'S Environmental Policy and Regulatory Framework as outlined in Section III. This EMS, in addition to GOI'S Environmental Policy and Regulatory Framework, considers the Environment Safeguard Systems (ESS) of its development partners, notably development financing institutions (DFIs) such as the World Bank (WB), Asian Development Bank (ADB), Kreditanstalt für Wiederaufbau (KfW), and Japan Bank for International Cooperation (JBIC).

19. In order to assess equivalence between GOI'S Environmental Policy and Regulatory Framework (as specific to environmental clearance process) and ESS of the above development partners, IIFCL considered elements as outlined in Table 2.

**Table 2: Elements considered to assess equivalence between GOI'S Environmental Policy and Regulatory Framework and ESS of Key Development Partners to IIFCL**

Item	
Overview	<ul style="list-style-type: none"> <li>• Purpose of their application</li> <li>• Topic/Scope</li> <li>• Projects requiring environmental assessment (EA)</li> <li>• Legal requirements/standards applied</li> <li>• General responsibilities</li> <li>• Timing</li> </ul>
Screening	<ul style="list-style-type: none"> <li>• Screening process</li> <li>• Screening tools</li> <li>• Categories</li> <li>• Overriding criterion for categorization</li> <li>• EA activities as a result of screening</li> <li>• Screening responsibilities</li> </ul>
Terms of Reference (ToR) for EA	<ul style="list-style-type: none"> <li>• Responsibilities for ToR preparation and review</li> <li>• Tools and method to be used</li> <li>• Standards applied</li> </ul>
EA documentation	<ul style="list-style-type: none"> <li>• Contents</li> <li>• Responsibilities for preparation of EA studies</li> <li>• Responsibilities for reviewing EA studies</li> <li>• Language in which EA studies are reported</li> </ul>
Impact mitigation	<ul style="list-style-type: none"> <li>• Principles of mitigation</li> <li>• Environmental Management Plan (EMP)</li> </ul>
Consultation and disclosure	<ul style="list-style-type: none"> <li>• Public consultation requirements</li> <li>• Information disclosure requirements</li> </ul>
Implementation and monitoring	<ul style="list-style-type: none"> <li>• Responsibilities for ensuring implementation of EMP</li> </ul>

EA = environmental assessment, EMP = Environmental Management Plan, ToR = terms of reference.

20. Appendix 2 presents a detailed comparison between GOI's Environmental Policy and Regulatory Framework and ESS of key DFIs on this basis. This comparison shows that GOI's Environmental Policy and Regulatory Framework have significant commonalities with the ESS of WB, ADB, KfW, and JBIC. The differences are limited to categorization, public consultation, references to the standards and can be closed through stepping up and customizing the EMS as per the operational experience.<sup>2</sup> The scope of the EMS may also be broadened at a later date to explicitly address other related safeguards of DFIs, for instance safeguards on Natural Habitat, Dam Safety, and Cultural Properties of WB.

21. Adoption of GOI's environmental policy and regulatory framework with procedures appropriate to IIFCL, supported by guidance to lead banks/subborrowers 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 DFIs.

#### **D. Structure of IIFCL's EMS**

22. As per the ESS at the DFIs (especially WB and ADB), IIFCL falls into category FI (financial intermediary) and is obligated to develop and operate an EMS with adequate institutional capacity to ensure satisfactory implementation of DFI's environmental safeguards.

23. Accordingly, an EMS needs to be developed, guided by an environmental policy and procedures that will ensure that all projects processed and financed by IIFCL are compliant to applicable environmental laws and regulations and do not result into unmitigated and significantly adverse environmental impacts/risks.

24. Given the requirement of compliance and considering the comprehensiveness of GOI's EIA and EC system (as outlined in section IV), IIFCL's EMS has been developed around GOI's environmental policy and regulatory framework. IIFCL's EMS 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.

25. In order to meet the requirements of category FI (especially that of WB and ADB), IIFCL's EMS 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
- (iv) Allocation of responsibilities—especially between IIFCL and lead banks/subborrowers
- (v) Institutional structure to operate the EMS
- (vi) Capacity development plan especially for lead banks and subborrowers

26. Each of the above key elements of the EMS is explained in the sections below.

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<sup>2</sup> GOI uses thresholds for categorization in addition to project type and location. Some DFIs like the World Bank and Asian Development Bank recommend a two-stage public consultation process as against single step public hearing followed by GOI. In addition, there is a period of 120 days of disclosure for category A and select category B (B-sensitive) projects as per the World Bank/Asian Development Bank. The World Bank/Asian Development Bank recommended standards as per the Pollution Prevention Abatement Handbook (PPAH). The GOI follows national standards as prescribed by the Central Pollution Control Board (CPCB). The State Pollution Control Boards (SPCB) can, however, specify stricter standards than the national standards depending on the sensitivity of the location.

**E. Policy Statement of IIFCL's EMS**

27. IIFCL's EMS is guided by IIFCL's environmental and social policy as below.

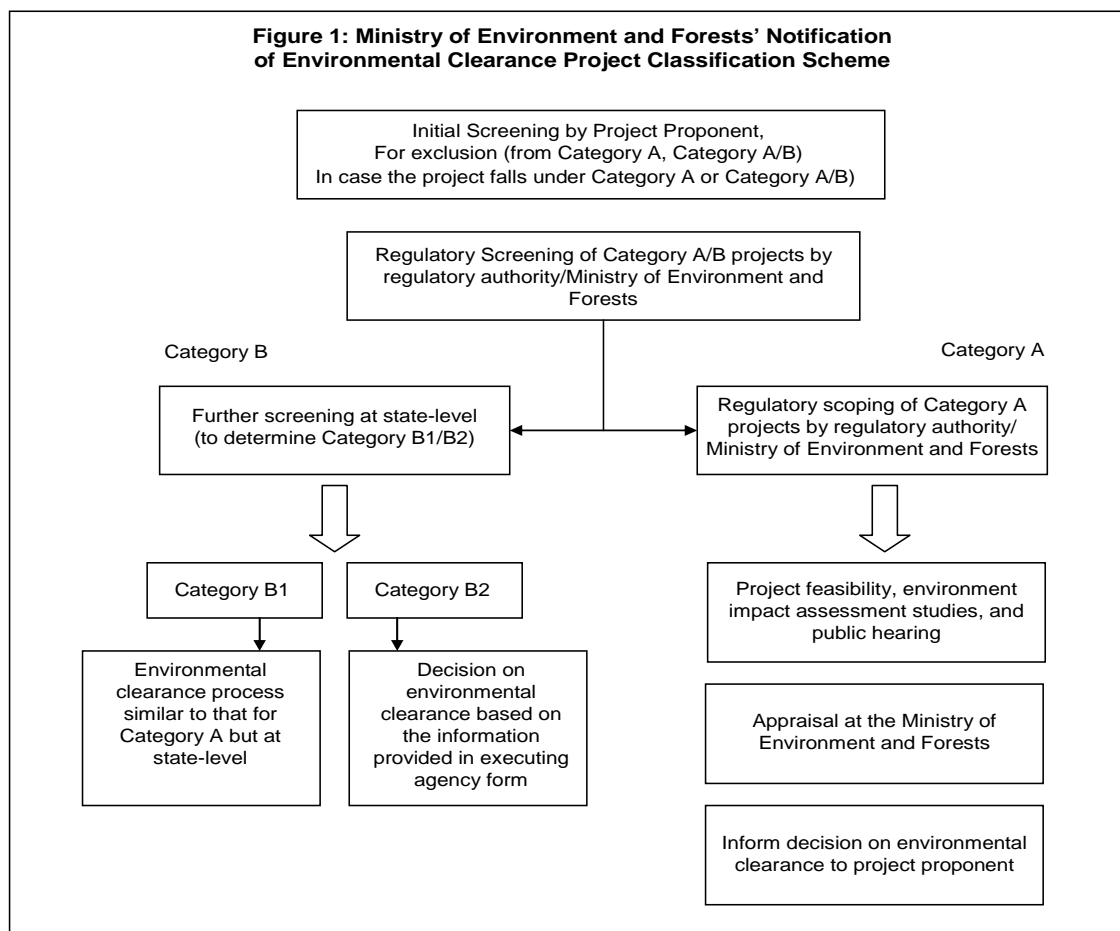
- (i) IIFCL gives due importance to Environmental and Social (E&S) considerations in appraising and financing infrastructure projects to minimize adverse impacts and risks to the environment and people that may be affected.
- (ii) IIFCL is committed to comply with all relevant E&S policy and legislative requirements and laws of the lands with which it engages and remain responsive to the E&S requirements of its development partners.

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

**F. Operational Steps of IIFCL's EMS**

29. 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 Appendix 3). IIFCL's EMS will use this categorization to prioritize the appraisal and monitoring process followed by the EMS.

30. As explained in Appendix 3, 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.

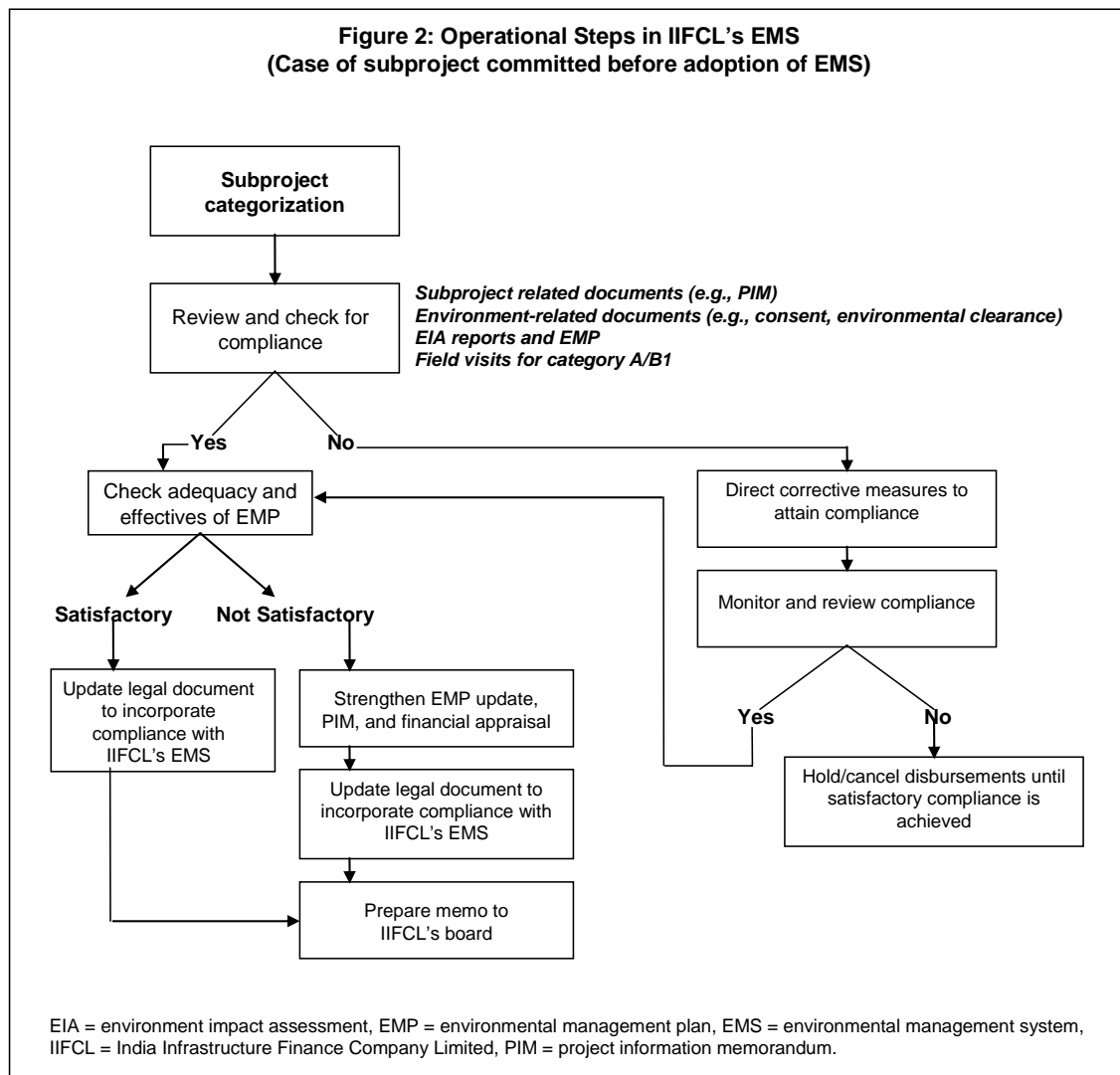


31. The operational steps of IIFCL's EMS consider 2 scenarios.
- (i) Projects that have been appraised and agreed to be financed before establishment and operation of EMS.
  - (ii) Projects that are not yet committed for finance and will undergo EMS.
32. Steps for each of the above are described below.
33. **Case A.** Projects that have been appraised and agreed to be financed before establishment and operation of EMS.
34. 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 Appendix 3.
  - (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 framework, then the strictest amongst the two categories will be followed.
  - (iv) Wherever there is no clear guidance available in MoEF's EIA notification for subproject categorization, then the ESSF scheme of categorization will be followed.



- (v) Check for environmental compliance. 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, IIFCL 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, IIFCL 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. IIFCL 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.
- (vi) 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 Appendix 8 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/subborrowers time targeted actions to attain compliance. Hold disbursements until compliance is achieved.
- (viii) 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 disbursements.
- (ix) 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 IIFCL's EMS as binding during the period of engagement. Take appropriate approval of the board.
- (x) 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.
- (xi) Obtain board approval for the revisions. Update legal documents that reflect applicability of IIFCL's EMS as binding during the period of engagement.

35. Figure 2 describes the above steps.



36. **Case B.** Projects that will be appraised after the adoption of IIFCL's EMS.

37. Following steps will be followed by IIFCL in carrying out the requirements of EMS 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 Appendix 3.
- (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 ESSF, 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 ESSF's scheme of categorization will be followed.
- (v) Check for environmental compliance. See Appendix 4, 5, 6, and 7 and for applicable laws and regulations. Focus will 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,

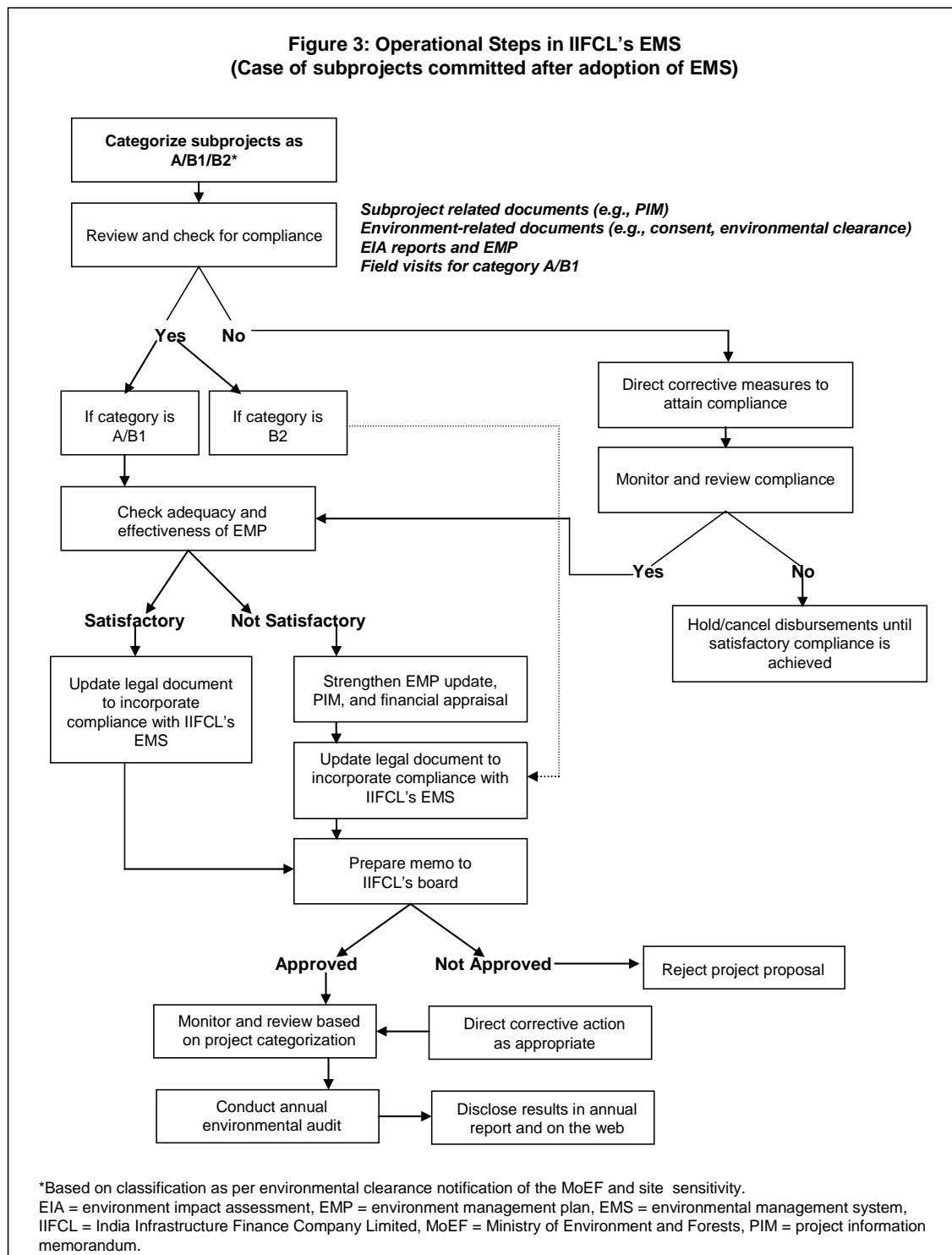
and whether processes and procedures, especially related to public consultation and disclosure (e.g. public hearing) are correctly followed. On public consultation and disclosure, IIFCL will ensure the subproject proponent conducts consultation with affected groups and local NGOs at least twice during 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, IIFCL 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. IIFCL 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 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.

- (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 Appendix 8 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/subborrowers 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 IIFCL's EMS 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 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 IIFCL's EMS as binding during the period of engagement.

38. Figure 3 describes the above steps.

39. 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 and report to the board and development partners.

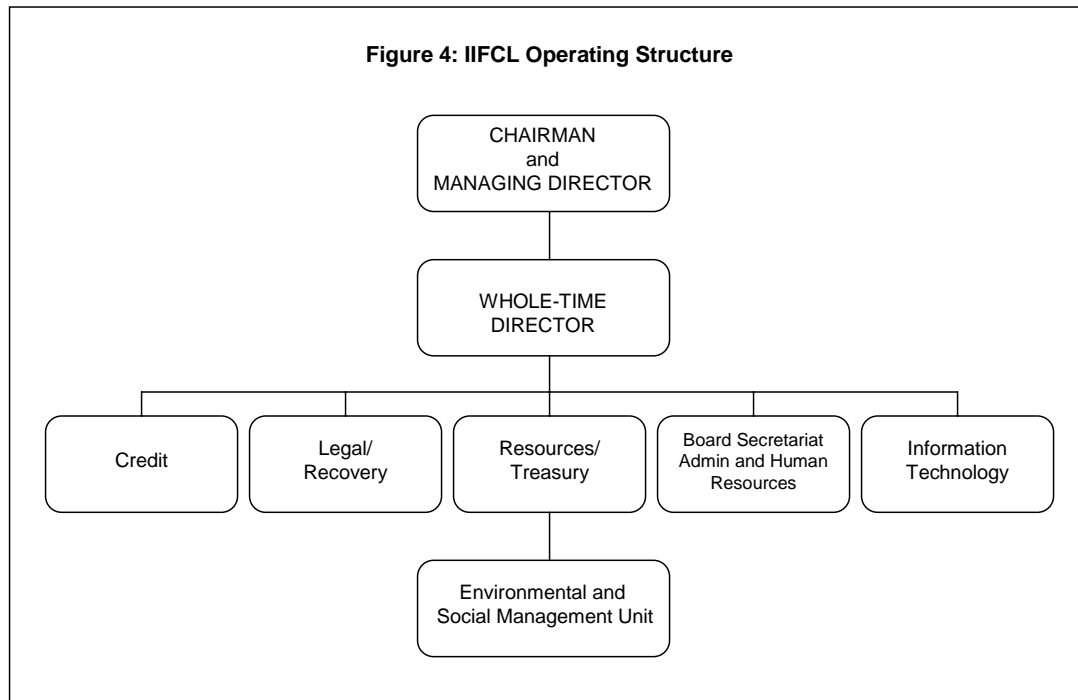


### G. Institutional Structure to Operate the EMS

40. IIFCL's board comprises a Chairman and Managing Director (CMD) and a whole-time Director (WTD) nominated by GOI. Apart from these two WTDs, GOI has nominated 3 experts and 2 officials as part-time directors of the company.

41. IIFCL operates with a lean and thin structure to keep overheads to the minimum. The operating team comprises dedicated professionals drawn from different banks, FIs, and government departments.

42. Keeping this in mind and considering the operational steps of EMS, it is proposed to set up an Environmental and Social Management Unit (ESMU) at IIFCL. Figure 4 shows the organizational structure.

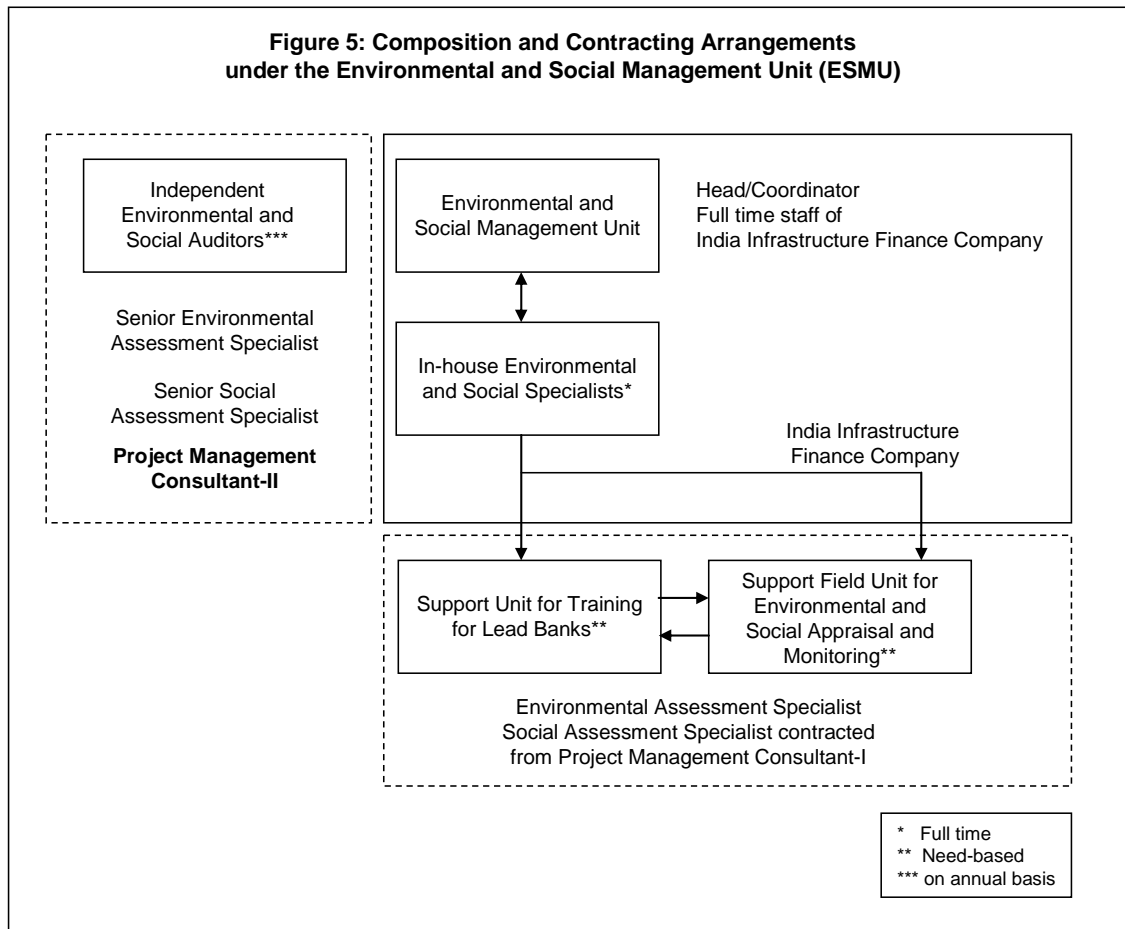


43. Figure 5 shows the composition and contracting arrangements under ESMU. As shown in this figure, ESMU will be headed by a full time staff of IIFCL who could be either invited on deputation from other organizations or recruited. This person should have masters in environmental science/engineering/planning with at 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.

44. 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 IIFCL 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.

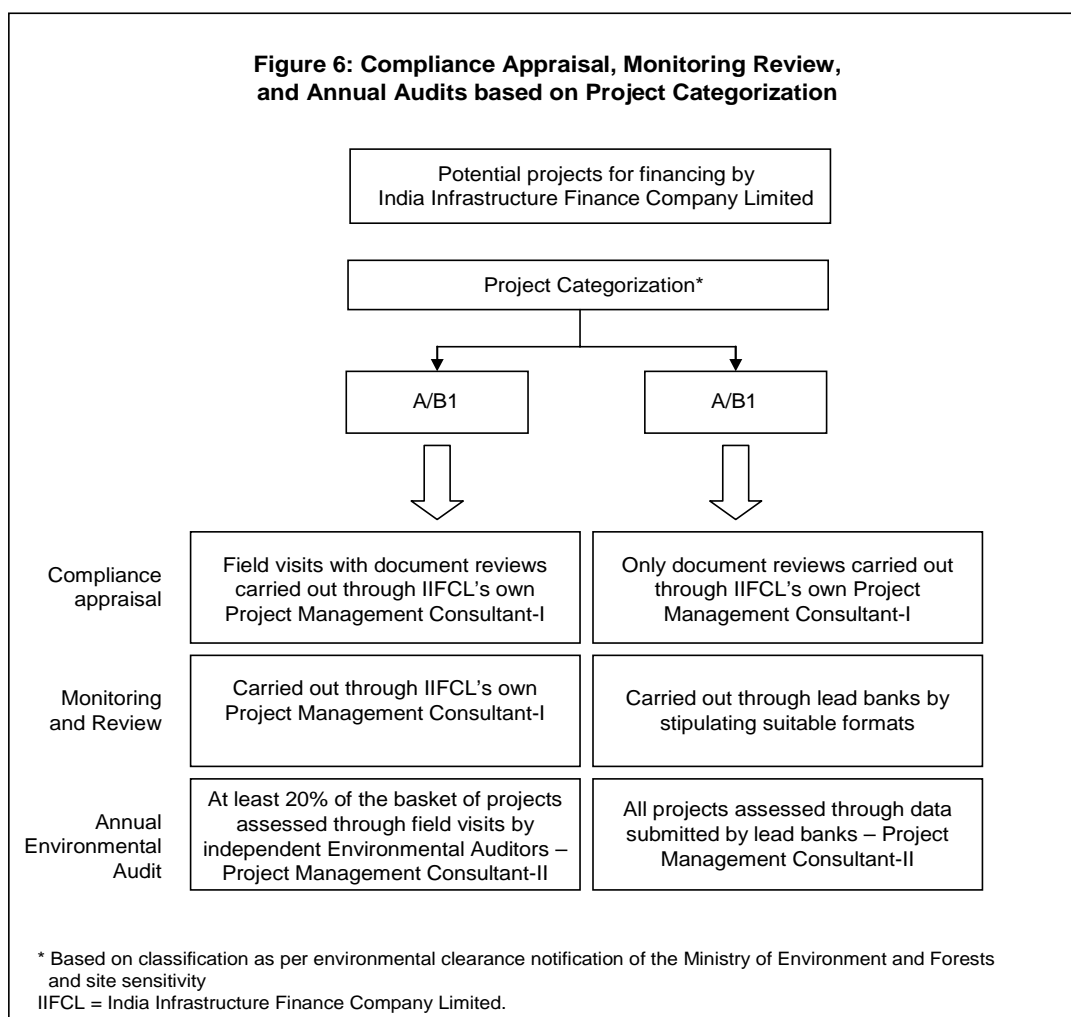
- (i) Conduct compliance review.
- (ii) Check adequacy and effectiveness of EMPs/RAPs/IPDPs.
- (iii) Develop conditions as loan covenants that stipulate requirements or outcomes of EMP/RAP/IPDPs.
- (iv) Prepare memo for the board on this basis.

- (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/subborrowers. PMC-I will build a compendium to this effect and provide to the lead banks/subborrowers).
  - (vi) Coordinate with field environmental and social specialists for assessment, monitoring, and review as required.
  - (vii) Coordinate with lead banks/subborrowers to support independent environmental and social auditors (PMC-II) for preparing IIFCL's Annual Environmental and Social report.
  - (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/subborrowers on project processing under EMS/Social Safeguards Framework (SSF).
  - (x) Update EMS/SSF based on operational experience.
45. 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 IIFCL's EMS for lead banks/subborrowers.
46. This support will not be in-house but provided using the pool of resources available at PMC-I.
47. Figure 5 below provides the details.



## H. Conduct of Annual Environmental Audit and its Disclosure

48. IIFCL will conduct annual environmental and social audit through independent consultants (PMC-II). The audit process will consider project categories for better focus and optimization. Figure 6 below explains this concept.



49. The PMC-II 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.

50. PMC-I will issue monitoring formats to all lead banks/subborrowers. PMC-II 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/subborrowers 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 IIFCL. A soft copy of this report will be kept on IIFCL's website. Appendix 15 presents a typical Audit Recording Sheet. Appendix 16 lists typical monitoring and report and reporting formats.

#### I. Reporting to Development Partners' Requirements

51. Apart from the annual environmental audit reports, IIFCL 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



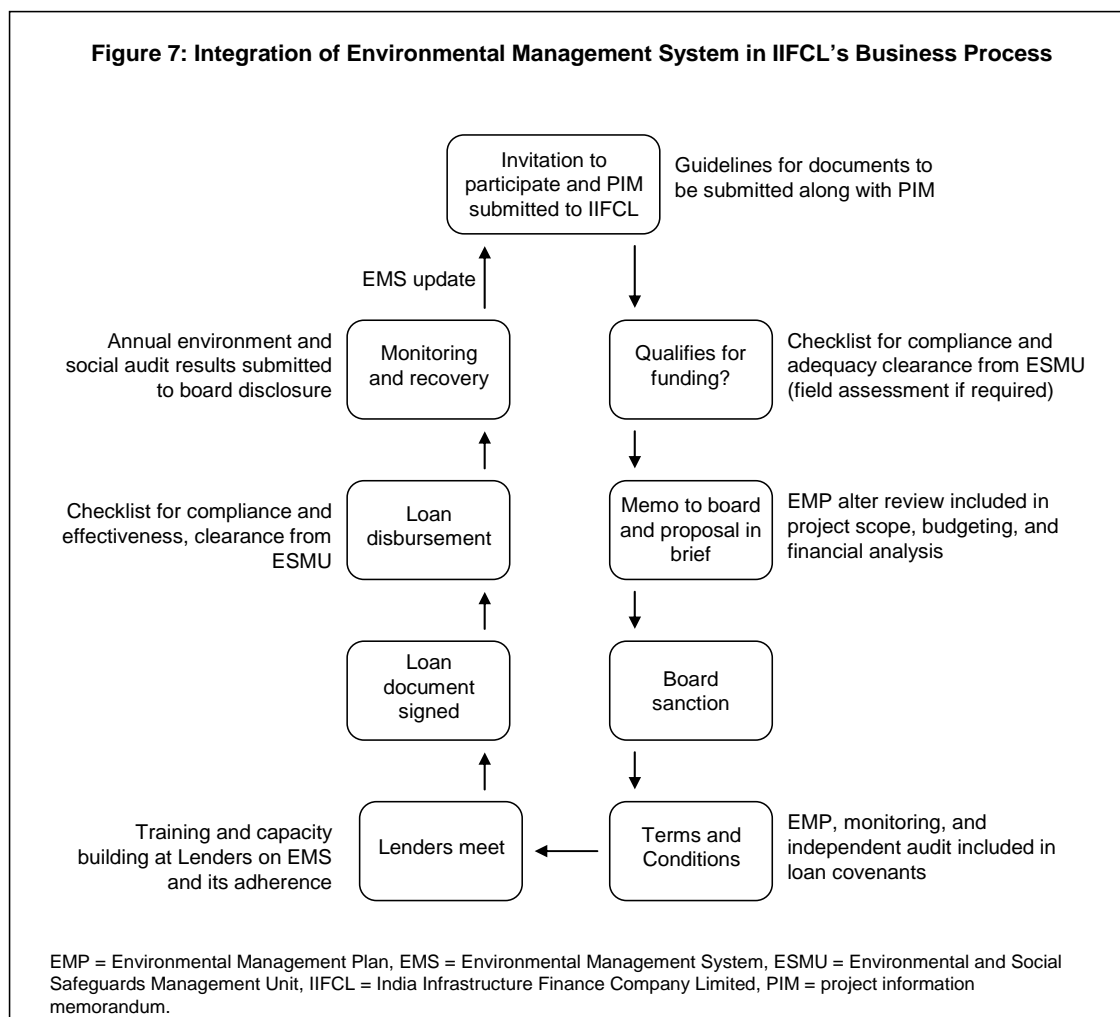
past subprojects and correction action plans are required/proposed apart from management of environmental issues of proposed subprojects that are under preparation.

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

53. Appendices 18 and 19 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. IIFCL 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. IIFCL will have every right to ask for replacement of staff, if so desired.

## J. Mainstreaming EMS in IIFCL'S Project Processing

54. IIFCL will mainstream the EMS described above in its business process. Figure 7 below shows such an integration of EMS.



## K. Allocation of Responsibilities

55. Proposals to IIFCL will typically arise from lead banks/designated lead syndicator and subborrowers either for seeking direct lending or for refinance.

56. 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 IIFCL is less than that of the lead bank in a project.

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

58. Similarly, the lead banks/designated lead syndicator and subborrowers shall be responsible for regular monitoring and periodic evaluation of compliance of the project with agreed milestones and performance levels particularly for purposes of disbursement of IIFCL funds. It shall send periodic progress reports in such form and, at such times, as may be prescribed by IIFCL. The lead banks/designated lead syndicator and subborrowers will therefore be responsible to report environmental compliance of the project to IIFCL in the formats as prescribed by the EMS. Table 3 summarizes allocation of responsibilities on this basis.

**Table 3: Allocation of Responsibilities**

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

EIA = Environmental Impact Assessment, EMP = Environmental Management Plan, EMS = Environmental Management System, ESMU = Environment and Social Safeguards Management Unit, IIFCL = India Infrastructure Finance Company Limited, PIM = project information memorandum, PMC = Project Management Consultant.

## L. Capacity Development Plan

59. IIFCL has signed a Memorandum of Understanding (MOU) for cooperation/participation in infrastructure finance together with several banks/FIs. These include Andhra Bank, Bank of Baroda, Canara Bank, Corporation Bank, HUDCO, IDBI Bank, IDFC, IL&FS, Indian Bank, Indian Overseas Bank, Oriental Bank of Commerce, Syndicate Bank, UTI Bank, Vijaya Bank, and Punjab National Bank.

60. Except IL&FS and IDFC, none of the above banks have environmental and social safeguard frameworks.

61. Since the effectiveness of IIFCL's EMS depends considerably on the understanding and preparedness of lead banks/designated lead syndicator and subborrower, it is important that IIFCL makes effort to sensitize the lead banks/subborrowers on management of environmental and social issues, provides guidance, and encourages them to build requisite capacities.

62. IIFCL, with the assistance of PMC-I, will offer lead banks/designated lead syndicator and subborrowers a short program (1 to 2 days duration), at least 2 times a year, to explain IIFCL's EMS, its importance and benefits. It will further encourage lead banks/subborrowers in particular to consider adopting the proposed EMS. IIFCL 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/subborrowers that follow EMS equivalent to IIFCL in their operations.

63. Appendix 20 provides an outline of sample training program for lead banks/subborrowers.

#### **M. EMS Update**

64. IIFCL's EMS will be maintained on its website for the purposes of sharing and towards receiving any comments or suggestions.

65. The EMS 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 EMS document will be appropriately updated. This task will be the responsibility of IIFCL's ESMU.

## **ANNEX E-1: OVERVIEW OF THE ENVIRONMENT IMPACT ASSESSMENT (EIA) PROCESS OF GOVERNMENT OF INDIA (GOI)**

### **A. EIA as a Planning and Management Tool**

1. The EIA System is being implemented both as planning, management, and as regulatory tool. To be effective as a planning and management tool, the EIA system should be implemented at the earliest possible stage of project development. It allows the cost of mitigating and positive impact enhancement measures to be incorporated in the total cost analysis. The environmental objectives are made part of the project objective. This is an improvement over that of the old way of looking at the overall cost of the project where environmental costs are not included. The EIA as a planning and management tool is best used by the project proponent. The internalization of the environment costs becomes imperative when the project proponent knows that the ministry of Environment and Forests (MoEF) using the EIA as a regulatory tool will impose conditions such that the cost of environmental protection will be borne by the project proponent.

#### **1. EIA as a Regulatory Tool**

2. After the project is subjected to an EIA and the application for clearance is submitted and approved, MoEF issues an Environmental Clearance (EC). The EC normally lists down a set of conditions for it to be valid. These conditions stipulate under what conditions will the project operate and clearance granted. In this way, the MoEF is able to regulate the operations of all environmentally critical projects and projects within environmentally critical areas.

#### **2. Operational Framework of the EIA System**

1. The EIA process in India is made up of the following phases:

- (i) Screening
- (ii) Scoping and consideration of alternatives
- (iii) Baseline data collection
- (iv) Impact prediction
- (v) Assessment of alternatives, delineation of mitigation measures, and environmental impact statement
- (vi) Public hearing
- (vii) Environment Management Plan
- (viii) Decision making
- (ix) Monitoring the clearance conditions

2. Each of these phases are explained below

##### **(i) Screening**

3. Screening is carried out to see whether a project requires EC as per the statutory notifications. Screening Criteria<sup>1</sup> are based upon:

- (i) Scales of impact;
- (ii) Severity of impact; and
- (iii) Location of development.<sup>2</sup>

<sup>1</sup> EIA Notification dated 14 September 2006.

<sup>2</sup> The site of a project (e.g., in ecologically sensitive areas) is an important factor which decides whether an EC is required. Ecologically sensitive areas include coastal areas (protected by the CRZ Notification), forests (protected by the Forest Conservation Act), various areas notified by MoEF as Ecologically Sensitive Zones (ESZs) areas

4. All projects and activities are broadly categorized into 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.

5. In case of Category 'B' projects or activities, this stage will entail the scrutiny of an application seeking prior EC by the concerned SEAC for determining whether or not the project or activity requires further environmental studies for preparation of an EIA for its appraisal prior to the grant of EC depending upon the nature and location specificity of the project. The projects requiring an EIA report shall be termed Category 'B1' and the remaining projects shall be termed Category 'B2' and will not require an EIA report. For categorization of projects into B1 or B2 except item 8 (b), the MoEF shall issue appropriate guidelines from time to time. (See Annex E-2).

6. A Project requires statutory EC only if the provisions of EIA notification and/or one or more statutory notification mentioned in Table SAG.1 cover it.

<b>Table SAG.1 : Siting Criteria Delineated by MOEF<sup>3</sup></b>	
1.	As far as possible, prime agricultural land/forest land may not be converted into an industrial site.
2.	Land acquired should be at a minimum but sufficient to provide for a green belt wherein the treated wastewater, if possible/suitable, could be utilized from wastewater treatment systems.
3.	Enough space may be provided for storing solid wastes. The space and the waste can be made available for possible reuse in future.
4.	Layout and form of the project must conform to the landscape of the area without unduly affecting the scenic features of that place.
5.	Associated township of the project, if any, to be created must provide for space for phyto-graphic barrier between the project and the township and should take into account predominant wind direction.
6.	Coastal Areas: at least 1/2 kilometer (km) from the high tide line (within 0.5 km of high tide line, specified activities as per coastal regulation zones notification, 1991 are permitted. The high tide line is to be delineated by the authorized agency only).
7.	Estuaries: At least 200 meters from the estuary boundaries.
8.	Flood Plains of the Riverine systems: at least 500 meters from flood plain or modified flood plain or by flood control systems.
9.	Transport/Communication System: at least 500 meters from highway and railway.
10.	Major Settlements (with populations of 300,000) at least 25 km from the projected growth boundary of the settlement.

7. The EIA Notification also makes prior EC mandatory for all new projects listed in the schedule, expansion or modernization of existing projects or activities listed in the schedule, and any change in the product mix in an existing manufacturing units included in the schedule beyond the specified limit . The prior EC granted for a project or activity shall be valid for a period of ten years in the case of River Valley projects (item 1(c) of the Schedule), project life as estimated by EAC or SEAC subject to a maximum of thirty years for mining projects and five years in the case of all other projects and activities. However, in the case of Area Development projects and Townships [item 8(b)], the validity period shall be limited only to such activities as may be the responsibility of the applicant as a developer. This period of validity may be extended by the regulatory authority concerned by a maximum

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from, for example, Doon valley, Dahanu taluka, etc.) to wetlands, deserts, national parks, sanctuaries, corals, etc. (which are not protected by any specific Notification). In case of industries, the Environmental Guidelines for Siting of Industry (framed in 1985) and the Environment (Siting for Industrial Projects) Rules, 1999 (presently in draft form) have to be complied.

<sup>3</sup> Source: Siting Criteria Delineated by MoEF.

period of five years provided an application is made to the regulatory authority by the applicant within the validity period. To obtain this, the project proponent has to furnish information in an environmental appraisal questionnaire issued by MoEF.

### (ii) Scoping

8. Scoping<sup>4</sup> is a process of detailing the terms of reference of EIA. It refers to the process by which the EAC/SEAC<sup>5</sup> determine detailed and comprehensive Terms Of Reference (TOR) addressing all relevant environmental concerns for the preparation of an EIA Report with respect to the project or activity for which prior EC is sought.

9. The MoEF has published guidelines for different sectors which outline the significant issues to be addressed in the EIA studies. Quantifiable impacts are to be assessed on the basis of magnitude, prevalence, frequency and duration, and non-quantifiable impacts (such as aesthetic or recreational value), significance is commonly determined through the socio-economic criteria. After the areas where the project could have significant impact are identified, the baseline status of these should be monitored and then the likely changes in these on account of the construction and operation of the proposed project should be predicted.

### (iii) Baseline Data

10. Baseline data describes the existing environmental status of the identified study area. The site-specific primary data should be monitored for the identified parameters and supplemented by secondary data if available.

### (iv) Impact Prediction

11. Impact prediction is a way of 'mapping' the environmental consequences of the significant aspects of the project and its alternatives. Environmental impact can never be predicted with absolute certainty and this is all the more reason to consider all possible factors and take all possible precautions for reducing the degree of uncertainty.

12. The impacts that should be assessed have been shown in the following table (Table SAG.2).

**Table 1: Parameters for Assessment of Impacts**

<b>Impacts</b>	<b>Parameters</b>
Air	<ul style="list-style-type: none"> <li>• changes in ambient levels and ground level concentrations due to total emissions from point, line and area sources</li> <li>• effects on soils, materials, vegetation, and human health</li> </ul>
Noise	<ul style="list-style-type: none"> <li>• changes in ambient levels due to noise generated from equipment and movement of vehicles</li> <li>• effect on fauna and human health</li> </ul>
Water	<ul style="list-style-type: none"> <li>• availability to competing users</li> <li>• changes in quality</li> <li>• sediment transport</li> <li>• ingress of saline water</li> </ul>
Land	<ul style="list-style-type: none"> <li>• changes in land use and drainage pattern</li> </ul>

<sup>4</sup> All projects and activities listed as Category 'B' in Item 8 of the Schedule (Construction/Township/Commercial Complexes /Housing) shall not require Scoping and will be appraised on the basis of Form 1/ Form 1A and the conceptual plan.

<sup>5</sup> The composition of the EAC will be as given in the EC Notification dated 14 September 2006. The SEAC at the State or the Union territory level shall be constituted by the Central Government in consultation with the concerned State Government or the Union territory Administration with identical composition.

Impacts	Parameters
	<ul style="list-style-type: none"> <li>• changes in land quality including effects of waste disposal</li> <li>• changes in shoreline/riverbank and their stability</li> </ul>
Biological	<ul style="list-style-type: none"> <li>• deforestation/ tree-cutting and shrinkage of animal habitat.</li> <li>• impact on fauna and flora (including aquatic species if any) due to contaminants/pollutants</li> <li>• impact on rare and endangered species, endemic species, and migratory path/route of animals.</li> <li>• impact on breeding and nesting grounds</li> </ul>
Socio-Economic	<ul style="list-style-type: none"> <li>• impact on the local community including demographic changes.</li> <li>• impact on economic status</li> <li>• impact on human health.</li> <li>• impact of increased traffic</li> </ul>

**(v) Assessment of Alternatives, Delineation of Mitigation Measures and EIA Report**

13. For every project, possible alternatives should be identified and environmental attributes compared. Alternatives should cover both project location and process technologies. Alternatives should consider 'no project' option also. Alternatives should then be ranked for selection of the best environmental option for optimum economic benefits to the community at large.

14. Once alternatives have been reviewed, a mitigation plan should be drawn up for the selected option and is supplemented with an Environmental Management Plan (EMP) to guide the proponent towards environmental improvements. The EMP is a crucial input to monitoring the clearance conditions and therefore details of monitoring should be included in the EMP.

15. An EIA report should provide clear information to the decision-maker on the different environmental scenarios without the project, with the project and with project alternatives. Uncertainties should be clearly reflected in the EIA report.

**(vi) Public Consultation<sup>6</sup>**

16. Law requires that the locally affected persons and other stakeholders must be informed and consulted on a proposed development with a view to taking into account all the material concerns in the project or activity design as appropriate.

17. Any one likely to be affected by the proposed project is entitled to have access to the Executive Summary of the EIA. The affected persons may include

- (i) bonafide local residents,
- (ii) local associations,
- (iii) environmental groups active in the area, and
- (iv) any other person located at the project site / sites of displacement.

<sup>6</sup> The following categories of projects/activities are exempt from Public Consultation as notified by EC Notification dated 14th September 2006: (a) modernization of irrigation projects (item 1(c) (ii) of the Schedule), (b) all projects or activities located within industrial estates or parks (item 7(c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals, (c) expansion of Roads and Highways (item 7 (f) of the Schedule) which do not involve any further acquisition of land, (d) all Building/Construction projects/Area Development projects and Townships (item 8), (e) all Category 'B2' projects and activities, and (e) all projects or activities concerning national defense and security or involving other strategic considerations as determined by the Central Government.

18. They are to be given an opportunity to make oral/written suggestions to the SPCB/regulatory agency.

**(vii) Decision Making**

19. The regulatory authority shall consider the recommendations of the EAC or SEAC concerned and convey its decision to the applicant in the stipulated time from the receipt of the recommendations of the EAC or SEAC concerned or in other words, within one hundred and five days of the receipt of the final EIA Report, and where EIA is not required, within one hundred and five days of the receipt of the complete application with requisite documents.

20. The decision on EC is arrived at through a number of steps including evaluation of EIA and EMP.

**(viii) Monitoring the Clearance Conditions**

21. It is mandatory for the project management to submit semi-annually, compliance reports with respect to the stipulated prior EC terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.

22. All such compliance reports submitted by the project management shall be public documents. Copies of the same shall be given to any person on application to the concerned regulatory authority. The latest such compliance report shall also be displayed on the web site of the concerned regulatory authority. Monitoring will enable the regulatory agency to review the validity of predictions and the conditions of implementation of the EMP.

**(ix) EIA Review**

23. All project proposals requiring EA may be examined according to the following review process.

24. Appraisal is the detailed scrutiny by the EAC or SEAC of the application and other documents like the Final EIA report, outcome of the public consultations including public hearing proceedings submitted by the applicant to the regulatory authority concerned for grant of EC. This appraisal shall be made by EAC or SEAC concerned in a transparent manner in a proceeding to which the applicant shall be invited for furnishing necessary clarifications in person or through an authorized representative. On conclusion of this proceeding, the EAC or SEAC concerned shall make categorical recommendations to the regulatory authority concerned either for grant of prior EC on stipulated terms and conditions, or rejection of the application for prior EC, together with reasons for the same.

25. The appraisal of all projects or activities which are not required to undergo public consultation or submit an Environment Impact Assessment report, shall be carried out on the basis of the prescribed application Form 1 and Form 1A as applicable, any other relevant validated information available and the site visit wherever the same is considered as necessary by the EAC or SEAC concerned.



**Table 3: The Impact Assessment Agency**

The Impact Assessment Agency (IAA) is the Union Ministry of Environment and Forests (MoEF). EIA Reports submitted along with the application for clearance are evaluated and assessed by the IAA, and if deemed necessary, it may consult a Committee of Experts.

Role of the IAA:

- (i) the IAA will evaluate and assess the EIA report. In this process, the project proponent will be given a chance to present his proposal (where a proponent is required to obtain environmental clearance).
- (ii) the IAA will also prepare a set of recommendations and conditions for its implementation based on this assessment (if a project is accepted).
- (iii) the IAA will also be responsible for the environmental monitoring process (during the implementation and operation of the project).

Earlier, the 1994 EIA Notification made it mandatory for the IAA, i.e., MoEF to consult a Committee of Experts before granting environmental clearance to a particular project. However, in its present amended form, the notification states that the IAA may consult the Committee of experts if deemed necessary. The new notification also leaves it to the discretion of the IAA to make complaint reports publicly available, "subject to public interest." Thus, the recent amendments are resulting in the dilution of the law on EIAs.

A draft memorandum suggesting changes to the environmental clearance procedures in India following the EIA Notification of 2006 recommends the creation of an autonomous and decentralized EIA Authority under the Union Government that has environment clearance granting powers.

As per this draft memorandum, an EIA Authority (EIAA) shall replace the MoEF/SEIA structure specified by MoEF's September 2006 EIA Notification. This EIAA shall be an autonomous body with the same powers as the Election Commission with concomitant accountability to discharge their duties with due diligence and within timeframes defined by the EPA Act/ Rules, in particular, regarding taking decisions on proposed projects/ facilities. It will have a decentralized structure similar to that of the SEIAAs in the MoEF September 2006 EIA Notification. The link ministry for the EIAA shall be MoEF.

### **3. Clearance of Projects**

26. The following projects or activities require prior EC from the concerned regulatory authority, which shall hereinafter referred to be as the Central Government in the MoEF for matters falling under Category<sup>7</sup> 'A' in the Schedule<sup>8</sup> (see Annex E-3) and at State level, the SEIAA<sup>9</sup> for matters falling under Category 'B' in the said Schedule, before any construction work or preparation of land by the project management except for securing the land, is started on the project or activity:

- (i) All new projects or activities listed in the Schedule to this notification;

<sup>7</sup> 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.

<sup>8</sup> EC notification dt. 14<sup>th</sup> September 2006.

<sup>9</sup> A State level EIA Authority hereinafter referred to as the SECA shall be constituted by the Central Government under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 comprising of three Members including a Chairman and a Member – Secretary to be nominated by the State Government or the Union territory Administration concerned.

- (ii) Expansion and modernization of existing projects or activities listed in the Schedule to this notification with addition of capacity beyond the limits specified for the concerned sector, that is, projects or activities which cross the threshold limits given in the Schedule, after expansion or modernization;
- (iii) Any change in product mix in an existing manufacturing unit included in Schedule beyond the specified range.

#### **4. Follow up and Monitoring Activities**

27. It shall be mandatory for the project management to submit semi-annually, compliance reports with respect to the stipulated prior EC terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.

28. All such compliance reports submitted by the project management shall be public documents. Copies of the same shall be given to any person on application to the concerned regulatory authority. The latest such compliance report shall also be displayed on the web site of the concerned regulatory authority.

#### **5. Penalty**

29. Concealing factual data or submission of false, misleading data/reports, decisions or recommendations would lead to the project being rejected. Approval, if granted earlier on the basis of false data, would also be revoked. Misleading and wrong information will cover the following:

- (i) False information,
- (ii) False data,
- (iii) Engineered reports,
- (iv) Concealing of factual data, or
- (v) False recommendations or decisions

## ANNEX E- 2: COMPARATIVE ASSESSMENT OF ENVIRONMENTAL SAFEGUARD PROCESS, PROCEDURES AND PRACTICES

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
Purpose	<ul style="list-style-type: none"> <li>To evaluate potential environmental risks and impacts in a projects' area of influence, project alternatives, ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, or compensating of adverse environmental impacts and enhancing positive impacts.</li> </ul>	<ul style="list-style-type: none"> <li>To analyze, manage, and plan to address environmental impacts of development policies, strategies, programs, and projects.</li> </ul>	<ul style="list-style-type: none"> <li>To ensure that environmental and social aspects are considered in all projects supported by JBIC and appropriate measures are taken to prevent negative impacts and improve positive impacts.</li> </ul>	<ul style="list-style-type: none"> <li>Aims to ensure KfW Development financed projects are appropriately analyzed and results of these analyses are taken into account during project preparation and decision making, implementation and operation.</li> </ul>	<ul style="list-style-type: none"> <li>The objective of EIA is to foresee and address potential environmental problems/concerns at an early stage of project planning and design.</li> <li>EIA/EMP should assist planners and government authorities in the decision making process by identifying the key impacts/issues and formulating mitigation measures.</li> </ul>
Topics/Scope	<ul style="list-style-type: none"> <li>Natural environment, human health and safety, social aspects, trans-boundary, and global environmental aspects.</li> </ul>	<ul style="list-style-type: none"> <li>Physical and biological environment, and social, health, and economic conditions.</li> </ul>	<ul style="list-style-type: none"> <li>Natural environment, human health (including occupational health), quality of life, cultural assets, and related social aspects in particular, involuntary resettlement.</li> </ul>	<ul style="list-style-type: none"> <li>Natural environment, human health, and safety and social issues.</li> </ul>	<ul style="list-style-type: none"> <li>Physical and biological environment and social, health, and economic conditions.<sup>1</sup></li> <li>The impacts that should be assessed include air, noise, land, water, biological and socio-economic.</li> </ul>
Project Requiring EIA	<ul style="list-style-type: none"> <li>Any project with potential to cause significant adverse</li> </ul>	<ul style="list-style-type: none"> <li>Any project with potential cause significant adverse</li> </ul>	<ul style="list-style-type: none"> <li>Any project with potential to cause significant adverse</li> </ul>		<ul style="list-style-type: none"> <li>These projects are well defined in EIA Notification (2006) as Schedule – I. Criteria such as</li> </ul>

<sup>1</sup> EIA Notification, 2006 (MoEF, GoI). Available at: <http://envfor.nic.in/legis/eia/so1533.pdf>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	impacts that are sensitive, diverse or unprecedented. Affect broad areas and cannot easily be predicted, prevented, or mitigated.	environmental impacts.	impacts that are sensitive, diverse, or unprecedented. Affect broad areas and cannot easily be predicted, prevented or mitigated.		Project type, size and location are considered in stipulating EIA requirements.
Legal requirements/ Standards Applied	<ul style="list-style-type: none"> <li>Must comply with national and WB standards and take account of national and international obligations and commitments.</li> </ul>	<ul style="list-style-type: none"> <li>National and/or WB standards (whichever are the most stringent) must be met. Alternative standards must be fully justified.</li> </ul>	<ul style="list-style-type: none"> <li>Environmental laws and standards of the host national and local government as well as their environmental policies and plans.</li> </ul>	<ul style="list-style-type: none"> <li>National standards of the host country must be met. If these are lacking or considered inadequate, other international standards - e.g., from WB, EU, and Germany shall be used. Emission (ambient value) standards are primarily guiding. Emission standards are used complementarily.</li> </ul>	<ul style="list-style-type: none"> <li>Standards at National level are issued by Central Pollution Control Board (CPCB). These standards are generally at par (and in cases even stricter) than the international standards.</li> <li>Standards can be made stricter by State Pollution Control Board based on location specific considerations.</li> </ul>
General Responsibilities	<ul style="list-style-type: none"> <li>Borrower is responsible for ensuring that all EA activities are carried out in accordance with national and WB requirements. Borrower is also</li> </ul>	<ul style="list-style-type: none"> <li>Borrower is responsible for doing the EA in accordance with national and ADB's EA requirements. The borrower is also responsible for</li> </ul>	<ul style="list-style-type: none"> <li>Project Proponent/borrower is responsible for ensuring that environmental considerations, in accordance with national, local, and</li> </ul>	<ul style="list-style-type: none"> <li>Project proponent is responsible for carrying out national and KfW Development Bank EA requirements and presenting such information to KfW</li> </ul>	<ul style="list-style-type: none"> <li>Responsibilities for preparing EIA are with the project proponent. MoEF and State Departments of Environment have responsibility finalizing TOR, review, and take a decision on EC.</li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>responsible for ensuring that the EMP is fully implemented and reported.</p> <ul style="list-style-type: none"> <li>Bank will review and agree screening category with Borrower, review TOR of EIA studies, review EIA report and EMP, and require borrower to submit monitoring reports to Bank showing compliance with national and WB standards. WB will also carry out review missions to ensure compliance with EMP.</li> </ul>	<p>implementing the recommendations of the EA.</p> <ul style="list-style-type: none"> <li>The ADB will screen the project and is responsible for ensuring that the EA report meets the ADB's requirements and provides a sound basis for project processing and implementation. ADB will monitor implementation of agreed environmental mitigation measures by borrower.</li> </ul>	<p>JBIC requirements are undertaken and reported to JBIC. They are also responsible for reporting to JBIC how environmental and social considerations are being monitored and managed during project implementation.</p> <ul style="list-style-type: none"> <li>JBIC will screen the project, disclose environmental impact information to the public via its website, review the environmental and social impacts when making its decision to approve funding and will monitor/to follow up after a decision on funding has been made.</li> </ul>	<p>Development Bank. They must also monitor and report to KfW Development Bank environmental issues during project implementation and operation as agreed to in contractual obligations.</p> <ul style="list-style-type: none"> <li>KfW Development Bank will screen and categorize all projects, review the environmental assessment work carried out and monitor implementation of contractual conditions.</li> </ul>	
Timing	<ul style="list-style-type: none"> <li>EA should be initiated "as early as possible" in the project cycle. Note that Category A EA Reports must be received at least 60</li> </ul>	<ul style="list-style-type: none"> <li>EA activities begin as soon as potential projects for ADB financing are identified. EA studies are carried</li> </ul>	<ul style="list-style-type: none"> <li>Environmental and social considerations should be examined at the "earliest possible stage" in project planning.</li> </ul>	<ul style="list-style-type: none"> <li>Screening occurs "at an early stage" in project preparation. For financial Cooperation projects/programs</li> </ul>	<ul style="list-style-type: none"> <li>Timing of EIA is concurrent to project development.</li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	days before Board approval is due (and in some cases 120 days before).	out simultaneously with pre-feasibility and feasibility studies. EA activities should also continue throughout the project cycle - not a one-off report.		(including FI projects), KfW Development Bank explicitly requires that EIA should be seen as an integral part of the project design procedure and should influence the project from its preparation through to its conclusion.	
<b>Screening</b>					
Screening Process	<ul style="list-style-type: none"> <li>Each proposed project is screened to determine appropriate extent and type of EA. Projects are classified into 1 to 4 categories depending on type, location, sensitivity and scale of project, and nature and magnitude of its environmental impacts. For Dam and Reservoir Projects, the</li> </ul>	<ul style="list-style-type: none"> <li>Each proposed project is scrutinized as to its type, location, the sensitivity, scale, nature and magnitude of potential environmental impacts and the availability of cost-effective mitigation measures.</li> </ul>	<ul style="list-style-type: none"> <li>Each proposed project is screened to determine appropriate extent and type of EA. Projects are classified into 1 to 4 categories depending on type, location, sensitivity and scale of project, and nature and magnitude of its</li> </ul>	<ul style="list-style-type: none"> <li>Screening is carried out by KfW based on information provided by project proponent. All projects are screened based on an OECD list of projects for which major impacts can be expected (depending on type of project, resources that will be used/affected and</li> </ul>	<ul style="list-style-type: none"> <li>Screening is done to see whether a project requires EC as per the statutory notifications. Screening Criteria<sup>2</sup> are based upon: <ol style="list-style-type: none"> <li>Scales of impact;</li> <li>Severity of impact; and,</li> <li>Location of development.<sup>3</sup></li> </ol> </li> </ul>

<sup>2</sup> In the EIA Notification dated 14<sup>th</sup> September 2006.

<sup>3</sup> The site of a project (e.g. in ecologically sensitive areas) is an important factor which decides whether an EC is required. Ecologically sensitive areas include coastal areas (protected by the CRZ Notification), forests (protected by the Forest Conservation Act), various areas notified by MOEF as Ecologically Sensitive Zones (ESZs) areas from, for example, Doon valley, Dahanu taluka, etc.) to wetlands, deserts, national parks, sanctuaries, corals, etc (which are not protected by any specific Notification). In case of industries, the Environmental Guidelines for Siting of Industry (framed in 1985) and the Environment (Siting for Industrial Projects) Rules, 1999 (presently in draft form) have to be complied.

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>borrower must engage independent expert/s whose qualifications and TOR are acceptable to the Bank, review the project BEFORE screening.</p>		<p>environmental impacts. For Dam and Reservoir Projects, the borrower must engage independent expert/s whose qualifications and TOR are acceptable to the Bank, review the project BEFORE screening.</p>	<p>area to be affected) and activities where KfW support is prohibited as well as opinion of internal experts.</p>	
Screening Tools	<ul style="list-style-type: none"> <li>• Guidance is given on screening, area considered sensitive, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Screening Checklist.</li> <li>• Rapid Environment Assessment (REA) Checklists.</li> <li>• Guidance is available to help classify/screen projects in the EA guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>• Guidance is given on screening, area considered sensitive, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Above mentioned OECD list of project sensitivities and actions considered unacceptable on environmental grounds and expert opinions.</li> </ul>	<ul style="list-style-type: none"> <li>• Checklist and maps are used as screening tools</li> </ul>
Categories	<ul style="list-style-type: none"> <li>• A: Likely to have significant adverse impacts that are sensitive, diverse, or unprecedented and may affect a broad area.</li> <li>• B: Potential impacts are less adverse than</li> </ul>	<ul style="list-style-type: none"> <li>• A: Potential to have significant adverse environmental impacts.</li> <li>• B: Some environmental impact but less significant than</li> </ul>	<ul style="list-style-type: none"> <li>• A: Likely to have significant adverse impacts that are sensitive, diverse, or unprecedented and may affect a broad area.</li> <li>• B: Potential impacts are less adverse</li> </ul>	<ul style="list-style-type: none"> <li>• Programmatic approach: Screening either results in projects that are Environmentally Relevant (i.e., further investigation needed or projects are rejected with this</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>for Category A, they are site specific, few if any are irreversible and in most cases, mitigatory measures can be designed more readily than for Category A projects.</p> <ul style="list-style-type: none"> <li>• C: Minimal or no adverse environmental impacts.</li> <li>• FI: May result in adverse environmental impacts financed through a financial intermediary.</li> </ul>	<p>Category A.</p> <ul style="list-style-type: none"> <li>• C: Unlikely to have adverse environmental impacts</li> <li>• FI: Involve investment through an FI. Financial intermediary must apply an environmental management system unless all subprojects will result in insignificant impacts. Categorization can be changed if necessary.</li> </ul>	<p>than for Category A, they are site specific, few if any are irreversible and in most cases, mitigatory measures can be designed more readily than for Category A projects.</p> <ul style="list-style-type: none"> <li>• C: Minimal or no adverse environmental impacts.</li> <li>• FI: May result in adverse environmental impacts financed through a financial intermediary.</li> </ul>	<p>concept) or are Environmentally Irrelevant (no or insignificant environmental impacts are expected and no particular protective, supervisory, and/or compensatory measures are required).</p> <ul style="list-style-type: none"> <li>• There is no formal categorization for screening.</li> <li>• Categorization takes place after appraisal according to future action needed during implementation and operation (such action comprise measures of mitigation, monitoring, or compensation)</li> </ul>	
Overriding criterion for categorization	<ul style="list-style-type: none"> <li>• Multiple component projects are categorized according to the component with potentially most serious adverse</li> </ul>	<ul style="list-style-type: none"> <li>• EA category is determined by the category of its most environmentally sensitive</li> </ul>	<ul style="list-style-type: none"> <li>• EA requirements apply to the whole project, not just the parts financed by FC funds e.g., rehabilitation or</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple component projects are categorized according to the component with potentially most</li> </ul>	<ul style="list-style-type: none"> <li>• Not addressed nor applicable in EC</li> </ul>



EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	effects. Dual categories are not used.	components including direct and indirect impacts.	expansion of existing facilities.	serious adverse effects. Dual categories are not used.	
EA Activities as a result of screening	<ul style="list-style-type: none"> <li>• A: Requires detailed assessment of impacts.</li> <li>• B: Requires less detailed assessment than Category A.</li> <li>• C: Screening is required and decision recorded.</li> <li>• FI: FI must carry out EA Procedures in accordance with OP 4.01. If subprojects are of category A or B type, FI must demonstrate to the Bank its commitment and capability to carrying out necessary Environmental Safeguard work.</li> </ul>	<ul style="list-style-type: none"> <li>• A: Requires EIA</li> <li>• B: Requires Initial Environmental Examination (IEE) and if necessary an EIA thereafter</li> <li>• C: No EA required but environmental implications must be reviewed and recorded.</li> <li>• FI: must apply an environmental management system acceptable to ADB to ensure environmental aspects of projects are adequately considered.</li> </ul>	<ul style="list-style-type: none"> <li>• A: Requires detailed assessment of impacts.</li> <li>• B: Require less detailed assessment than Category A.</li> <li>• C: Screening is required and decision recorded.</li> <li>• FI: FI must carry out EA Procedures in accordance with OP 4.01. If subprojects are of category A or B type, FI must demonstrate to the Bank its commitment and capability to carrying out necessary Environmental Safeguard work.</li> </ul>	<ul style="list-style-type: none"> <li>• EA study is required only for those screened as “environmentally relevant.” “Irrelevant” projects must check/monitor whether environmentally relevant changes occur during implementation and operation.</li> </ul>	
<b>EA TOR and Methodology</b>					
Responsibilities for TOR preparation and review	<ul style="list-style-type: none"> <li>• For Category A projects, a field visit by an environmental specialist should be</li> </ul>	<ul style="list-style-type: none"> <li>• For Category A project, an initial fact finding mission by the project</li> </ul>	<ul style="list-style-type: none"> <li>• No specifications are given on who prepares the TOR for an EA study or</li> </ul>	<ul style="list-style-type: none"> <li>• Responsibility for preparation of TORs for EIA studies rests with the project</li> </ul>	<ul style="list-style-type: none"> <li>• All project proposals requiring EA may be examined according to the following review process. <ol style="list-style-type: none"> <li>1. Appraisal is the detailed</li> </ol> </li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>carried out to prepare the scope, procedures, schedule, and outline for the EA study. Project affected people and local NGOs should be consulted before the TOR is finalized.</p> <ul style="list-style-type: none"> <li>For all other projects, borrower must discuss and agree EIA scope and TOR with the Bank. The Bank will help in drafting TOR as necessary.</li> </ul>	<p>preparation team (ADB) should include review of screening category and preparation of necessary TOR for the EIA study. For both Category A and B projects, TOR must be discussed and agreed with the National Environment Agency and the borrower. Project affected people and local NGOs must also be consulted about the TOR and their views/concerns reflected before the TOR is approved by the ADB.</p>	<p>whether JBIC checks and approves this.</p>	<p>proponent but they must be agreed with KfW (this same rule is applied for the TOR of Feasibility Studies). Specific guidance is given on how TORs should be prepared in the Environmental Handbook of MBZ Vol. 1, section 0.</p>	<p>scrutiny by the EAC or SEAC of the application and other documents like the Final EIA report, outcome of the public consultations including public hearing proceedings, submitted by the applicant to the regulatory authority concerned for grant of EC. This appraisal shall be made by EAC or SEAC concerned in a transparent manner in a proceeding to which the applicant shall be invited for furnishing necessary clarifications in person or through an authorized representative. On conclusion of this proceeding, the EAC or SEAC concerned shall make categorical recommendations to the regulatory authority concerned either for grant of prior EC on stipulated terms and conditions, or rejection of the application for prior EC, together with reasons for the same.</p> <p>2. The appraisal of all projects or activities which are not required to undergo public consultation, or submit an Environment Impact Assessment report, shall</p>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
					be carried out on the basis of the prescribed application Form 1 and Form 1A as applicable, any other relevant validated information available and the site visit wherever the same is considered as necessary by the EAC or SEAC concerned.
Tools and methods to be used	<ul style="list-style-type: none"> <li>Advice on pollution abatement measures, guidance on impact etc. are provided in World Bank Pollution Abatement Handbook and Environment Assessment Sourcebook (and updates).</li> </ul>	<ul style="list-style-type: none"> <li>Some guidance on the approach to completing EA studies is provided in the ADB's Environmental Assessment Guidelines. ADB follows standards and approach laid down in the World Bank's Pollution Abatement Handbook.</li> </ul>	<ul style="list-style-type: none"> <li>Generic guidance is given on the underlying principles which should be adopted in preparing EA studies. Analyses of environmental impacts must for example include an analysis of costs and benefits in as quantitative terms as possible.</li> </ul>	<ul style="list-style-type: none"> <li>Guidance on tools, methods, and standards are provided in BMZ's Environmental Handbook. Reference is also made to the World Bank's Industrial Pollution Abatement Handbook and the OECD DAC Guideline for Environment and Aid No. 1 (on EIA).</li> </ul>	<ul style="list-style-type: none"> <li>Scoping<sup>4</sup> is a process of detailing the terms of reference of EIA. It refers to the process by which the EAC/SEAC<sup>5</sup> determine detailed and comprehensive Terms Of Reference (TOR) addressing all relevant environmental concerns for the preparation of an EIA Report with respect to the project or activity for which prior EC is sought.</li> <li>The MoEF has published guidelines for different sectors, which outline the significant issues to be addressed in the EIA studies.</li> </ul>
Standards applied	<ul style="list-style-type: none"> <li>Emissions and environmental quality standards as per Pollution Abatement</li> </ul>	<ul style="list-style-type: none"> <li>Emissions and environmental quality standards as per World Bank</li> </ul>	<ul style="list-style-type: none"> <li>Environmental standards of host national and local governments and</li> </ul>	<ul style="list-style-type: none"> <li>National and local environmental standards of the partner/recipient</li> </ul>	<ul style="list-style-type: none"> <li>National standards as stipulated by CPCB. These standards can be tightened by SPCBs depending on the sensitivity of the location.</li> </ul>

<sup>4</sup> All projects and activities listed as Category 'B' in Item 8 of the Schedule (Construction/Township/Commercial Complexes /Housing) shall not require Scoping and will be appraised on the basis of Form 1/ Form 1A and the conceptual plan.

<sup>5</sup> The composition of the EAC will be as given in the EC Notification dt. 14th September 2006. The SEAC at the State or the Union territory level shall be constituted by the Central Government in consultation with the concerned State Government or the Union territory Administration with identical composition

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	<p>Handbook and/or national standards whichever are the most stringent.</p> <ul style="list-style-type: none"> <li>Alternative standards may be proposed but their application must be fully justified.</li> </ul>	<p>Pollution Abatement Handbook and/or national standards whichever are the most stringent. Alternative standards may be proposed but their application must be fully justified.</p>	<p>also standards and/or good practice from international and regional organizations and Japan as benchmarks. Any deviation from these must be fully justified.</p>	<p>country. Where specific standards are not developed or are deemed inappropriate, other international standards (EU, Germany, World Bank) should be applied. Guidance on standards is given in Volume 3 of BMZ's Environmental Handbook.</p>	
EA Documentation					
Contents	<p>Detailed guidance on contents of Category A EA reports. Should include chapters on</p> <ul style="list-style-type: none"> <li>Executive Summary</li> <li>Policy, Legal, and Administrative Framework</li> <li>Project Description</li> <li>Baseline Data</li> <li>Environmental Impacts</li> <li>Analysis of Alternatives</li> <li>Environmental Management Plan (including mitigation measures)</li> </ul>	<ul style="list-style-type: none"> <li>Guidance on contents of Category A and B reports. Category A EIA Report should contain</li> <li>Project Description</li> <li>Description of the Environment</li> <li>Anticipated environmental impacts and mitigation measures</li> <li>Alternatives</li> <li>Economic</li> </ul>	<p>JBIC suggests that the following contents for a Category A EIA report is desirable:</p> <ul style="list-style-type: none"> <li>Executive Summary</li> <li>Policy, legal, and administrative framework</li> <li>Project description</li> <li>Baseline data</li> <li>Environmental impacts</li> <li>Analysis of alternatives</li> <li>Environmental Management Plan</li> </ul>	<p>No report formats are prescribed for EA studies or EMPs although a master format is recommended in the Environmental Handbook, Vol. 1, Section 0. However, there is a specific format required for the project appraisal report which KfW Development Bank must submit to the German Government—this requires the</p>	<ul style="list-style-type: none"> <li>Contents of the report defined by MoEF and maintained on its website. The contents are equivalent to those of MDBs</li> </ul>

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	<ul style="list-style-type: none"> <li>• Appendices</li> </ul>	<p>Assessment</p> <ul style="list-style-type: none"> <li>• Environmental Management Plan including Institutional requirements and monitoring programs</li> <li>• Public consultation and disclosure</li> <li>• Conclusion</li> <li>• Category B IEE Report (except projects deemed environmentally sensitive) should contain the same as Category A but with less detail, limited consideration of alternatives and description of institutional arrangements and environmental monitoring plan rather than an EMP.</li> </ul>	<ul style="list-style-type: none"> <li>• Record of Consultation</li> </ul>	<p>following information:</p> <ul style="list-style-type: none"> <li>• Description of the Project Area (environmental/ecological situation and legal context)</li> <li>• Project description (of relevance to environment)</li> <li>• Identification and assessment of environmental impacts and a description of mitigation, monitoring, and compensation measures.</li> <li>• Summary on whether project is acceptable and classification of project based on impacts predicted in the EIA study</li> </ul>	
Responsibilities for preparation	<ul style="list-style-type: none"> <li>• Borrower is responsible for carrying out the EA. For</li> </ul>	<ul style="list-style-type: none"> <li>• Borrower is responsible for preparing the EIA</li> </ul>	<ul style="list-style-type: none"> <li>• The borrower or related parties must complete EIA reports</li> </ul>	<ul style="list-style-type: none"> <li>• The project proponent/investor is responsible for</li> </ul>	<ul style="list-style-type: none"> <li>• Responsibility of preparation of EIA is with the project proponent</li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>Category A projects, independent EA experts not affiliated with the project should be retained.</p>	<p>reports for Category A and IEE report for Category B projects.</p> <ul style="list-style-type: none"> <li>Borrower must also prepare EIA (SEIA) or summary IEE (SIEE) reports highlighting the main findings of the EIA and IEE Reports.</li> </ul>	<p>for Category A projects.</p>	<p>preparing EIA documentation for local/national approval of the project/activity. However, KfW Development Bank will provide professional advice to its partner country on environmental issues and financial assistance (similar approach as for feasibility studies).</p>	
<p>Responsibilities for Review</p>	<ul style="list-style-type: none"> <li>All EA studies are first reviewed by borrower and accepted by them. For Category A projects of highly risky or contentious nature, borrower should also engage an advisory panel of independent, internationally recognized specialists. The Bank then reviews the findings and recommendations of the EA to determine whether they provide an adequate basis for</li> </ul>	<ul style="list-style-type: none"> <li>The executing agency and ADB review the draft EIA or IEE report to ensure that it meets ADB requirements and provides sound basis for project processing and implementation. Consistent with the environmental requirements of the borrowing country, the national environmental</li> </ul>	<p>For Category A and B projects, JBIC carries out an environmental review to ensure that its procedures have been complied with.</p> <ul style="list-style-type: none"> <li>For Category A: Borrowers and related parties must submit their locally approved EIA report to JBIC for review plus any other relevant reports (e.g., Resettlement Plans etc.). JBIC uses a sector checklist tool</li> </ul>	<ul style="list-style-type: none"> <li>Projects/investment activity must receive formal environmental approval as required under national legal systems in the recipient country before KfW can approve the loan/investment. During implementation and operation, KfW together with the subborrower and relevant host country ministries will review</li> </ul>	<ul style="list-style-type: none"> <li>MoEF and State Departments of Environment have responsibility for review. Review is carried out by appointing multi-disciplinary and multi-institutional representatives consisting research/academia, environmental NGOs, planners and administrators.</li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>decision-making. If a borrower has already prepared EA studies prior to the Bank's involvement, the Bank will review this work for consistency against OP 4.01. If necessary, the Bank may then require additional work including consultation and disclosure.</p>	<p>agency and project executing agency must clear the EA and summary reports before EIA, IEE, and summary reports (SEIA and SIEE) are submitted to the Bank for disclosure. The views of the national environmental agency, the ADB, project executing agency and affected groups and local NGOs on the draft EIA should be incorporated before formal submission on the Bank for disclosure.</p>	<p>to review these documents and the project.</p> <ul style="list-style-type: none"> <li>• For Category B: similar checklist approach is used based on available information about the project—this may include EIA studies but is not a mandatory requirement.</li> <li>• For Category C: no environment review is required beyond screening.</li> <li>• For Category FI: JBIC will review the FI to check whether appropriate environmental and social considerations required by JBIC are ensured for projects.</li> </ul>	<p>the environmental aspects of the project and determine whether impacts have been sufficiently minimized.</p>	
Language	<p>EA reports submitted to the Bank must be in English, French, or Spanish and the executive summary in English. For disclosure</p>	<ul style="list-style-type: none"> <li>• For Category A projects, the Borrower must translate the SEIA into the local language.</li> </ul>	<ul style="list-style-type: none"> <li>• For Category A projects, EIA reports must be written in official language or language widely used in the country</li> </ul>	<ul style="list-style-type: none"> <li>• No mention is made about language of environmental safeguard activities.</li> </ul>	<ul style="list-style-type: none"> <li>• English and summary in local language (s) during Public Hearing</li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	purposes, summaries must also be prepared in the local language of project affected people/local NGOs.	<ul style="list-style-type: none"> <li>No other specifications are given on language</li> </ul>	where the project is implemented. When explaining projects to local residents, written materials must be provided in a language and form understandable to them.		
Impact Mitigation					
Principles of Mitigation	<ul style="list-style-type: none"> <li>Preventative measures are favored over mitigatory or compensation measures.</li> </ul>	<ul style="list-style-type: none"> <li>No detail is given on preferred mitigation hierarchy.</li> </ul>	<ul style="list-style-type: none"> <li>Priority is given to impact, prevention, and where this is not possible, minimization and reduction of impacts must be considered next. Compensation should be considered a last resort.</li> </ul>	<ul style="list-style-type: none"> <li>No detail is given on preferred mitigation hierarchy. In principle, integrated approaches-where possible are preferred. Generally, the precautionary principle is the overarching concept.</li> </ul>	<ul style="list-style-type: none"> <li>For every project, possible alternatives should be identified and environmental attributes compared. Alternatives should cover both project location and process technologies. Alternatives should consider 'no project' option also. Alternatives should then be ranked for selection of the best environmental option for optimum economic benefits to the community at large.</li> </ul>
Environmental Management Plan	<ul style="list-style-type: none"> <li>Integral part of the EA study. Should be prepared as part of Category A EA study. Category B projects, EA may result in an EMP only. Consists of full set of mitigation,</li> </ul>	<ul style="list-style-type: none"> <li>EMPs must be prepared for Category A and environmentally sensitive Category B projects. Must outline specific mitigation</li> </ul>	<ul style="list-style-type: none"> <li>Environmental Management Plans and Monitoring Plans must be developed where appropriate (and are required for Category A projects) and should include</li> </ul>	<ul style="list-style-type: none"> <li>No specific mention is made to an EMP and its format, as necessary measures for appropriate mitigation, monitoring and compensation must be included in</li> </ul>	<ul style="list-style-type: none"> <li>Once alternatives have been reviewed, a mitigation plan should be drawn up for the selected option and is supplemented with an Environmental Management Plan (EMP) to guide the proponent towards environmental improvements.</li> </ul>



EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>monitoring, and institutional measures to be taken during implementation and operation of the project.</p>	<p>measures, environmental monitoring requirements, and related institutional arrangements including budget requirements. Detailed guidance is provided on contents.</p>	<p>the costs of implementing such plans and financial funds and methods to be used to do this. Illustrative guidance is given on what should be monitored.</p>	<p>any EIA study as a standard element.</p>	<ul style="list-style-type: none"> <li>The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire.</li> </ul>
Consultation and Disclosure					
<p>Public Consultation requirements</p>	<ul style="list-style-type: none"> <li>Borrower must consult with project affected groups and local NGOs about the project's aspects and take their views into account for all Category A and B projects. For Category A projects, consultation must happen at least twice: (a) shortly after screening and before TOR for EA study reports is prepared. The borrower must</li> </ul>	<ul style="list-style-type: none"> <li>Borrower must consult with project affected groups and local NGOs for all Category A and B projects. Must be carried out as early as possible in the project cycle so that views are taken into account in project design and mitigation measures. Consultation</li> </ul>	<ul style="list-style-type: none"> <li>For Category A projects, stakeholders such as local residents must be consulted during preparation of EIA after sufficient information has been disclosed to them.</li> <li>Consultations must be recorded. Consultation should also continue if necessary throughout</li> </ul>	<ul style="list-style-type: none"> <li>Very little specific information regarding public consultation is explicitly provided. However, KfW Development Bank does require that information for and the interest of people affected (e.g., as represented by local NGOs, municipalities, or cooperatives) must be include in the</li> </ul>	<ul style="list-style-type: none"> <li>Requires that the locally affected persons and other stakeholders must be informed and consulted on a proposed development with a view to taking into account all the material concerns in the project or activity design as appropriate.</li> <li>Any one likely to be affected by the proposed project is entitled to have access to the Executive Summary of the EIA.</li> <li>The affected persons may include: bonafide local residents; local associations; environmental groups: active in the area; and any</li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>also consult with these groups during project implementation. During EA review by the Bank, special attention is paid to the nature of consultations and the extent to which views of affected people and local NGOs have been taken into account.</p>	<p>should continue into project implementation to identify and help address environmental issues that arise.</p> <ul style="list-style-type: none"> <li>• Category A projects, consultation must occur at least twice: (a) during early stage of EIA field work (the TOR for the EIA study should be disclosed to and discussed with affected groups/local NGOs) and (b) when draft EIA report is available and before the loan is appraised. The public consultation process must be described in the EIA and IEE reports.</li> <li>• If an EIA report has been completed</li> </ul>	<p>preparation and implementation of the project.</p> <ul style="list-style-type: none"> <li>• JBIC considers it highly desirable to engage stakeholders twice: during scoping of the EIA and when the draft report is being prepared. Where indigenous people may be affected adversely, efforts must be made to obtain the consent of such peoples after they have been fully informed.</li> <li>• JBIC may seek the opinion of concerned organizations and stakeholders when reviewing projects.</li> </ul>	<p>planning and decision-making process where possible e.g., through public participation or hearings.</p>	<p>other person located at the project site / sites of displacement</p> <ul style="list-style-type: none"> <li>• They are to be given an opportunity to make oral/written suggestions to the SPCB/regulatory agency.</li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
		<p>before ADB involvement, ADB will review the public consultation and disclosure carried out. If it does not meet ADB requirements, the borrower must carry out supplemental activities which will then be reported in revised EA reports and submitted to the Bank.</p>			
<p>Information Disclosure Requirements</p>	<ul style="list-style-type: none"> <li>To enable meaningful consultation, the borrower must provide project-affected groups and local NGOs on all Category A and B projects (proposed for IBRD and IDA financing) relevant material in a timely manner in a form and language understandable and accessible to groups</li> </ul>	<ul style="list-style-type: none"> <li>To facilitate meaningful consultation with project affected groups and local NGOs, the borrower must provide information on the project's environmental issues in a form and language(s) accessible to those being consulted.</li> </ul>	<p>JBIC will disclose information as follows:</p> <ul style="list-style-type: none"> <li>On completion of screening, the project name, country, location, an outline and sector of project, its screening category and reasons for this classification.</li> <li>For Category A and B projects, status of major documents on</li> </ul>	<ul style="list-style-type: none"> <li>No explicit requirement for information disclosure is given as all information for an appraisal report to the responsible German Federal Ministry (BMZ) has to be kept confidential.</li> </ul>	<ul style="list-style-type: none"> <li>An EIA report should provide clear information to the decision-maker on the different environmental scenarios without the project, with the project and with project alternatives. Uncertainties should be clearly reflected in the EIA report.<sup>6</sup></li> </ul>

<sup>6</sup> The Structure of the EIA Report has been provided in the Annexure to the EIA Notification (Appendix III). Available at: <http://envfor.nic.in/legis/eia/so1533.pdf>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>consulted.</p> <ul style="list-style-type: none"> <li>For Category A projects and any separate Category B report, the borrower must provide an initial summary of project activities and potential impacts for consultation before EA preparation and a summary of EA conclusions on completion of the draft EA. In addition, draft EA report must be made available at a public place accessible to project affected groups and local NGOs. The Bank will not consider appraisal of the project until this has been done.</li> <li>WB requires that the EIA be disclosed prior to the project appraisal mission and for a minimum of 60 days (Category A) or 30 days (Category B) prior to the date of Board</li> </ul>	<p>For Category A EIA studies, the TOR for such studies must be disclosed to affected people and local NGOs and their views and concerns sought before the TOR is finalized.</p> <ul style="list-style-type: none"> <li>On completion of the EIA and IEE Reports, the Borrower must submit summary reports (SEIA and SIEE) to the Bank for public disclosure via a depository library system and on the ADB website. The full EIA or IEE are also made available to interested parties on request.</li> <li>For all Category A projects and Category B projects deemed</li> </ul>	<p>environmental and social considerations by borrowers related parties e.g., EIA reports and environmental permit certificates. EIA reports will be made available.</p> <ul style="list-style-type: none"> <li>Result of environmental reviews of project after executing the Loan Agreement (provided on JBIC website).</li> <li>For Category A projects, the Borrower or project proponent must ensure that written materials used to explain the project to local residents are provided in a language and form understandable to them. EIA Reports must then be made available in the country and to the local residents where</li> </ul>		

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>approval. Note that for projects that have potentially significant environmental impacts, the WB may require that the EIA or a summary thereof be submitted to the US Executive Director 120 days prior to Board approval.</p>	<p>environmentally sensitive, the SEIA or SIEE must be disclosed to the public for 120 days before ADB's Board of Directors considers the loan or before approval of significant change in scope of project or subprojects.</p>	<p>the project is to be implemented. They must be available at all times for perusal by project stakeholders and copying must be permitted. It is also desirable that project proponent make monitoring results available to project stakeholders.</p>		
Implementation and Monitoring					
<p>Responsibilities ensuring implementation of EMP</p>	<p>The Borrower must report to the Bank on:</p> <ul style="list-style-type: none"> <li>• compliance with measures agreed with the Bank based on findings of the EA including implementation of the EMP</li> <li>• status of mitigatory measures</li> <li>• findings of monitoring plans</li> <li>• The Bank supervises the borrower to ensure that procurement</li> </ul>	<ul style="list-style-type: none"> <li>• For Category A and all environmentally sensitive Category B projects, the borrower must submit semi-annual reports on the implementation of EMPs as required in the loan agreement. ADB will conduct an annual review mission of environmental aspects of the</li> </ul>	<ul style="list-style-type: none"> <li>• Project proponent is responsible for implementing environmental and social considerations for the project. JBIC in principles confirms through the borrower that the project proponent is undertaking commitments associated with environmental and social consideration for category A and B projects. The</li> </ul>	<ul style="list-style-type: none"> <li>• The project proponent/investor is responsible for delivering regular project progress reports and implementing any recommendations for environmental protection and monitoring outlined in the EIA report and loan agreement. KfW Development Bank will agree specific actions to be taken which will be</li> </ul>	<ul style="list-style-type: none"> <li>• It is mandatory for the project management to submit half-yearly compliance reports with respect to the stipulated prior EC terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.</li> <li>• All such compliance reports submitted by the project management shall be public documents. Copies of the same shall be given to any person on application to the concerned regulatory authority. The latest such compliance report shall also be displayed on the web site of the</li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
	<p>arrangements are consistent with the environmental requirements set out in projects legal agreements. The Bank will carry out supervision missions incorporating suitable environmental expertise.</p>	<p>project.</p>	<p>information necessary for monitoring by JBIC needs to be supplied by the borrower and related parties by appropriate means. If JBIC judges that there is a need for improvement in the situation with respect to environmental and social considerations, it may ask the project proponent, through the borrower, to take appropriate action in accordance with the loan agreement.</p> <ul style="list-style-type: none"> <li>The project proponent is requested to monitor (a) whether any situations that were previously unforeseen arise and (b) to check the implementation and effectiveness of mitigation measures. It is desirable that</li> </ul>	<p>incorporated in contract documentation.</p> <ul style="list-style-type: none"> <li>KfW Development Bank will monitor the implementation of such commitments receiving above mentioned monitoring reports or may other agreed means. In principle, the implementation of a Resettlement Action Plan (RAP) has to be completed before the start of construction.</li> </ul>	<p>concerned regulatory authority.</p> <ul style="list-style-type: none"> <li>Monitoring will enable the regulatory agency to review the validity of predictions and the conditions of implementation of the EMP.</li> </ul>

EA Process, Procedure and Practices	World Bank	Asian Development Bank	JBIC	KfW Development Bank	GOI EIA/EC System
			such results are made available to stakeholders.		

**ANNEX E-3: SPECIFIED REQUIREMENTS FOR ENVIRONMENTAL CLEARANCE AS LISTED IN THE ENVIRONMENT IMPACT ASSESSMENT NOTIFICATION, MoEF, 2006**

1. The following projects or activities shall require prior environmental clearance from the concerned regulatory authority, i.e. the Central Government in the MoEF for matters falling under Category 'A' in the Schedule (see below) and at State level the State Environment Impact Assessment Authority (SEIAA) for matters falling under Category 'B' in the Schedule, before any construction work, or preparation of land by the project management except for securing the land, is started on the project or activity:

- (i) All new projects or activities listed in the Schedule to the notification;
- (ii) Expansion and modernization of existing projects or activities listed in the Schedule to the notification with addition of capacity beyond the limits specified for the concerned sector, that is, projects or activities which cross the threshold limits given in the Schedule, after expansion or modernization;
- (iii) Any change in product-mix in an existing manufacturing unit included in the Schedule beyond the specified range.

Schedule – List of Projects/Activities Requiring Environmental Clearance

Project or Activity		Category with threshold limit		Conditions if any
		A	B	
1		<b>Mining, extraction of natural resources and power generation (for a specified production capacity)</b>		
(1)	(2)	(3)	(4)	(5)
1a	Mining of minerals	<p>≥ 50 ha. of mining lease area</p> <p>Asbestos mining irrespective of mining area</p>	<p>&lt;50 ha</p> <p>≥ 5 ha .of mining lease area</p>	<p>General Condition shall apply</p> <p><u>Note</u> Mineral prospecting (not involving drilling) are exempted provided the concession areas have got previous clearance for physical survey</p>
1b	Offshore and onshore oil and gas exploration, development and production	All projects	-	<p><u>Note</u> Exploration Surveys (not involving drilling) are exempted provided the concession areas have got previous clearance for physical survey</p>
1c	River valley projects	<p>(i) ≥ 50 MW hydroelectric power generation;</p> <p>(ii) ≥ 10,000 ha. of culturable command area</p>	<p>(i) &lt; 50 MW ≥25 MW hydroelectric power generation;</p> <p>(ii) &lt; 10,000 ha. of culturable command area</p>	General Condition shall apply
1d	Thermal power plants	<p>≥ 500 MW (coal/lignite/naphtha and gas based);</p> <p>≥ 50 MW (pet coke diesel and all</p>	<p>&lt; 500 MW (coal/lignite/naphtha and gas based);</p> <p>&lt;50 MW ≥ 5MW (pet coke ,diesel</p>	General Condition shall apply



Project or Activity		Category with threshold limit		Conditions if any
1		A	B	
<b>Mining, extraction of natural resources and power generation (for a specified production capacity)</b>				
(1)	(2)	(3)	(4)	(5)
		other fuels )	and all other fuels )	
1e	Nuclear power projects and processing of nuclear fuel	All projects	-	
2	<i>Primary processing</i>			
2a	Coal washeries	≥1 million ton/annum throughput of coal	<1million ton/annum throughput of coal	General Condition shall apply (If located within mining area the proposal shall be appraised together with the mining proposal)
2b	Mineral beneficiation	≥0.1million ton/annum mineral throughput	< 0.1million ton/annum mineral throughput	General Condition shall apply (Mining proposal with Mineral beneficiation shall be appraised together for grant of clearance)
3	<i>Materials production</i>			
3a	Metallurgical industries (ferrous and non-ferrous)	a)Primary metallurgical industry  All projects  b) Sponge iron manufacturing ≥200TPD  c)Secondary metallurgical processing industry  All toxic and heavy metal producing units ≥20,000 tonnes /annum  -  ii)All other non – toxic secondary metallurgical processing industries>5,000 tonnes/annum	Sponge iron manufacturing <200TPD  Secondary metallurgical processing industry  i)All toxic and heavy metal producing units <20,000 tonnes /annum	General Condition shall apply for Sponge iron manufacturing
3b	Cement plants	≥ 1.0 million tonnes/annum production capacity	<1.0 million tonnes/annum production capacity. All Stand alone grinding units	General Condition shall apply
4	<i>Materials processing</i>			
4a	Petroleum refining industry	All projects	-	-

Project or Activity		Category with threshold limit		Conditions if any
		A	B	
1		<b>Mining, extraction of natural resources and power generation (for a specified production capacity)</b>		
(1)	(2)	(3)	(4)	(5)
4b	Coke oven plants	≥2,50,000 tonnes/annum -	<2,50,000 and ≥25,000 tonnes/annum	-
4c	Asbestos milling and asbestos based products	All projects	-	-
4d	Chlor-alkali industry	≥300 TPD production capacity or a unit located out side the notified industrial area/estate	<300 TPD production capacity and located within a notified industrial area/estate	Specific Condition shall apply  No new Mercury Cell based plants will be permitted and existing units converting to membrane cell technology are exempted from this Notification
4e	Soda ash Industry	All projects	-	-
4f	Leather/skin/hide processing industry	New projects outside the industrial area or expansion of existing units out side the industrial area	All new or expansion of projects located within a notified industrial area/estate	Specific Condition shall apply
5	<i>Manufacturing/fabrication</i>			
5a	Chemical fertilizers	All projects	-	-
5b	Pesticides industry and pesticide specific intermediates (excluding formulations)	All units producing technical grade pesticides	-	-
5c	Petro-chemical complexes (industries based on processing of petroleum fractions and natural gas and/or reforming to aromatics)	All projects	-	-
5d	Manmade fibres manufacturing	Rayon	Others	General Condition shall apply
5e	Petrochemical based processing (processes other than cracking and reformation and not covered under the complexes)	Located out side the notified industrial area/estate	Located in a notified industrial area/estate	Specific Condition shall apply
5f	Synthetic organic chemicals industry (dyes and dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	Located out side the notified industrial area/estate	Located in a notified industrial area/estate	Specific Condition shall apply

Project or Activity		Category with threshold limit		Conditions if any
1		A	B	
<b>Mining, extraction of natural resources and power generation (for a specified production capacity)</b>				
(1)	(2)	(3)	(4)	(5)
5g	Distilleries	(i) All Molasses based distilleries  (ii) All Cane juice/ non-molasses based distilleries $\geq 30$ KLD	All Cane juice/non-molasses-based distilleries <30 KLD	General Condition shall apply
5h	Integrated paint industry	-	All projects	General Condition shall apply
5i	Pulp and paper industry excluding manufacturing of paper from waste paper and manufacture of paper from ready pulp with out bleaching	Pulp manufacturing and Pulp and Paper manufacturing industry	Paper manufacturing industry without pulp manufacturing	General Condition shall apply
5j	Sugar Industry	-	$\geq 5000$ TCD cane crushing capacity	General Condition shall apply
5k	Induction/arc furnaces/cupola furnaces 5TPH or more	-	All projects	General Condition shall apply
6	<i>Service sectors</i>			
6a	Oil and gas transportation pipe line (crude and refinery/ petrochemical products), passing through national parks /sanctuaries/coral reefs /ecologically sensitive areas including LNG Terminal	All projects	-	
6b	Isolated storage and handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 and 3 of MSIHC Rules 1989 amended 2000)	-	All projects	General Condition shall apply
7	<i>Physical infrastructure including environmental services</i>			
7a	Air ports	All projects	-	-
7b	All ship breaking yards including ship breaking units	All projects	-	-
7c	Industrial estates/parks/ complexes/areas, Export Processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes	If at least one industry in the proposed industrial estate falls under the Category A, entire industrial area shall be treated as Category A, irrespective of the area.	Industrial estates housing at least one Category B industry and area <500 ha.	Special Condition shall apply  <b>Note:</b> Industrial Estate of area below 500 ha. and not housing any industry of category A or B does not require clearance.

Project or Activity		Category with threshold limit		Conditions if any
1		A	B	
<i>Mining, extraction of natural resources and power generation (for a specified production capacity)</i>				
(1)	(2)	(3)	(4)	(5)
		Industrial estates with area greater than 500 ha. and housing at least one Category B industry.	Industrial estates of area > 500 ha. and not housing any industry belonging to Category A or B.	
7d	Common hazardous waste treatment, storage and disposal facilities (TSDFs)	All integrated facilities having incineration and landfill or incineration alone	All facilities having landfill only	General Condition shall apply
7e	Ports and Harbours	≥ 5 million TPA of cargo handling capacity (excluding fishing harbours)	< 5 million TPA of cargo handling capacity and/or ports/ harbours ≥ 10,000 TPA of fish handling capacity	General Condition shall apply
7f	Highways	i) New National Highways; and ii) Expansion of National Highways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State.	i) New State Highways; and ii) Expansion of National / State Highways greater than 30 km involving additional right of way greater than 20m involving land acquisition.	General Condition shall apply
7g	Aerial ropeways	-	All projects	General Condition shall apply
7h	Common Effluent Treatment Plants (CETPs)	-	All projects	General Condition shall apply
7i	Common Municipal Solid Waste Management Facility (CMSWMF)	-	All projects	General Condition shall apply
7j	Building and construction projects	-	≥ 20000 sq. m. and < 1,50,000 sq. m. of built-up area#	#(built up area for covered construction; in the case of facilities open to the sky, it will be the activity area)
7k	Townships and Area Development projects	-	Covering an area ≥ 50 ha and / or built up area ≥ 1,50,000 sq. m.++	++All projects under Item 8(b) shall be appraised as Category B1

Notes:

General Condition (GC):

Any project or activity specified in Category B will be treated as Category A, if located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time-to-time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries

Specific Condition (SC):

If any Industrial Estate/Complex/Export Processing Zone/ Special Economic Zone/Biotech Park/Leather Complex with homogeneous type of industries such as Items 4(d), 4(f), 5(e), 5(f), or those Industrial estates with pre-defined set of activities (not necessarily homogeneous), obtains prior environmental clearance, individual industries including proposed industrial housing within such estates / complexes will not be required to take prior environmental clearance, so long as the terms and conditions for the industrial estate / complex are complied with. Such estates/complexes must have a clearly identified management with the legal responsibility of ensuring adherence to the terms and conditions of prior environmental clearance, and must indicate the authority to be held responsible for violation of the same throughout the life of the complex / estate

#### ANNEX E-4: SUMMARY OF KEY E&S LEGISLATIONS IN INDIA

NAME	SCOPE AND OBJECTIVE	OPERATIONAL AGENCIES/KEY PLAYERS
1. Water (Prevention and Control of Pollution) Act, 1974, amended, 1988	To provide for the prevention and control of water pollution and enhancing the quality of water	Central and State Pollution Control Boards
2. Air (Prevention and Control of Pollution) Act, 1981, amended, 1987	To provide for prevention, control and abatement of air pollution	Central and State Pollution Control Boards
3. Indian Forest Act, 1927	To consolidate acquisition of common property such as forests	State Government, Forest Settlement Officers
4. Forest Conservation Act, 1980, amended, 1988	To halt India's rapid deforestation and resulting environmental degradation	Central Government
5. Wildlife Protection Act, 1972, amended, 1993	To protect wildlife	Wildlife Advisory Boards, Central Zoo Authorities
6. Environment (Protection) Act, 1986, amended, 1991	To provide for the protection and improvement of the environment under an umbrella legislation	Central Government, nodal agency MoEF, can delegate powers, State Departments of Environment
7. Land Acquisition Act, 1894, amended 1985	To set out rules for the acquisition of land by the Government	Ministry of Rural Development (Department of Land Resources)
8. National Resettlement and Rehabilitation (R & R) Policy, 2003	To provide guidelines and for planning and implementation for the R&R component of the project	Ministry of Rural Development (Department of Land Resources)
9. Various Panchayat Acts <sup>1</sup>	To provide for planning the development at district level and the roles and responsibilities of Panchayats for planning and implementing the project	Directorate of Town Panchayats

<sup>1</sup> For a State-wise Profile on Panchayats, refer to <http://www.iespanchayat.net.in/database-panchayat-profile.htm>

## ANNEX E-5: ENVIRONMENTAL RULES AND NOTIFICATIONS RELEVANT TO INFRASTRUCTURE PROJECTS<sup>1</sup>

1. The Central and State Governments have the authority to regulate any operation relevant to infrastructure projects that are not in keeping with the following rules.

2. **The Environment (Protection) Act, 1986, amended 1991.** This Act is an umbrella legislation providing a single focus in the country for the protection of environment and seeks to plug the loopholes of earlier legislation relating to environment. Several sets of Rules relating to various aspects of management of hazardous chemicals, wastes, micro-organisms etc. have been notified under this Act. Some important points of this Act are

- (i) The Central Government may also put restrictions on an area in which any industry, operation or process or class of industries or operations shall not be carried out. If they are to be carried out, they may be permitted with certain safeguards.
- (ii) Emissions and effluent standards with respect to 60-odd categories of industries have been evolved and notified so far
- (iii) The standards with respect to pollutants are to be achieved within a period of one year from the date of their notification, especially by those industries identified as highly polluting.
- (iv) However, if a particular State Pollution Control Board (SPCB) / Union Territory Pollution Control Committee (UTPCC)<sup>2</sup> may so desire, it may reduce the time limit and also specify more stringent standards with respect to a specified category of industries within their jurisdiction. The SPCB however cannot relax either the time limit or the standards.
- (v) Those industries that require consent under the Water Act, Air Act or both, or authorisation under the Hazardous Waste (Management and Handling) Rules, 1989, are required to submit an environmental audit report to the concerned SPCB/PCC on or before 30<sup>th</sup> September every year.

3. **The Water (Prevention and Control of Pollution) Act, 1974, amended 1988.** The main provisions of this Act aim at prevention and control of water pollution as well as restoration of water quality, through the establishment of SPCB. Some salient features of this Act

- (i) No persons shall knowingly cause or permit any poisonous, noxious or polluting matter determined in accordance with such standards as may be laid down by the SPCB to enter (whether directly or indirectly) into any stream or well or sewer or on land
- (ii) No person shall knowingly cause or permit to enter into any stream any other matter which may tend, either directly or in combination with similar matters, to impede the proper flow of the water of the stream in a matter leading or likely to lead to a substantial aggravation of pollution due to other causes or of its consequences
- (iii) No person shall, without the previous consent of the SPCB:
  - 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

<sup>1</sup> Adapted from: (1) **Legislations on Environment, Forests, and Wildlife** [Updated on 27/11/2006] at <http://envfor.nic.in/legis/legis.html#K> (2) **Environmental Procedures: Guidelines and Clearances**. Available at [www.tidco.com/tn\\_policies/SIPB/enviro\\_clear.PDF](http://www.tidco.com/tn_policies/SIPB/enviro_clear.PDF)

<sup>2</sup> Hereafter referred to as "SPCB" only.

- hereafter in this section referred to as discharge of sewage) or
- Bring into use any new or altered outlets for the discharge of sewage or
- Begin to make any new discharge of sewage

4. An investor intending to set up an industry is required to apply in the prescribed form to the SPCB concerned to obtain the consent to establish as well as the consent to operate the industry after establishment. While granting the consent, the SPCB also stipulates specific conditions relating to the temperature, volume, composition, rate and point of discharge of emissions, effluents etc. The consent to operate an industry is granted for a specific period after which the conditions stipulated at the time of granting consent are reviewed by the SPCB. Even before the expiry of the consent period, the SPCB is authorised to carry out random checks on any industry to check if the standards prescribed are being complied with by the industry; in case the standards are not being met, the SPCB is authorised to serve a notice to the concerned person.

5. The owner of a defaulting industry may be required to construct a sewage/effluent treatment system. In the event of non-compliance of the standards, the SPCB may issue directions for disconnecting electricity and water supply or any other services to the industry, in extreme cases even to close down the unit.

6. Stringent penalties are prescribed in this Act for those who operate their industry without the valid consent or in violation of consent conditions. Any person aggrieved by an order of the SPCB in the above context may appeal to the Appellate Authority constituted by the concerned State Government. As per the provisions under the Water Act and the Air Act, all State Governments, are required to constitute Appellate Authorities for addressing the appeals received against SPCB. While some State Governments have separate Appellate Authorities under the two Acts, a single Appellate Authority may also exist in other states.

7. **The Air (Prevention and Control of Pollution) Act, 1981, amended 1987.** The objective of the Air Act is to prevent, control and reduce air pollution including noise pollution and to establish Boards at the States/UTs for this. Under the provisions of this Act, no person shall establish or operate any industrial plant without the consent of the SPCB. For obtaining consent to establish an industry, the investor has to apply to the SPCB in the prescribed form accompanied by the prescribed fees. The Board is required to grant consent within 4 months of receipt of the application. The consent would contain conditions relating to specifications of pollution control equipment to be installed.

8. The other Provisions of the Act are similar to those of the Water Act, 1974.

9. **The Public Liability Insurance Act, 1991.** This Act imposes on the owner the liability to provide immediate relief with respect to death or injury to any person or damage to any property resulting from an accident while handling any of the notified hazardous chemicals. This relief has to be provided on 'on fault' basis. To be able to meet this liability, the owner handling hazardous chemicals has to take an insurance policy of an amount equal to its 'paid up capital' or up to Rs.500 million, whichever is less. The policy has to be renewed every year. New undertakings will have to take this policy before starting their activity. For existing plants the policy was to be taken within one year of the Act coming into force i.e. up to 31st March, 1992. The owner also has to pay an amount equal to its annual premium to the Central Government's Environment Relief Fund (ERF). The reimbursement of relief to the extent of Rs25,000 per person is admissible in case of fatal accidents in addition to the reimbursement of medical expenses up to Rs12,500. The liability of the insurer is limited to Rs50 million per accident up to Rs150 million per year or up to the tenure of the policy. Any claims in excess of this liability will be paid from the ERF. In case the award still exceeds, the remaining amount shall have to be met by the owner. The payment



under the Act is only for the immediate relief; owners shall have to provide the final compensation, if any, arising out of legal proceedings.

10. **The Environmental Impact Assessment Notification, 2006.** This notification lays down specific project categories that require environmental clearance from the from the Central Government or as the case may be, by the State Level Environment Impact Assessment Authority, duly constituted by the Central Government, prior to establishing an industrial unit (see “Specified Requirements for Environmental Clearance as listed in the Environment Impact Assessment Notification, 2006, MoEF” in this document). It also addresses the composition of Screening, Scoping and Appraisal Committees, stages prior to environmental clearance, including public consultation and post-environmental clearance monitoring as well as transferability of environmental clearance.

11. **Forests Clearance.** Under Forests (Conservation) Act, 1980, de-reservation of forests, transfer to forest land by way of lease and clearing of trees for the purposes of reforestation during the undertaking of any infrastructure projects requires prior approval from the MoEF.

12. **Environment (Siting for Industrial Projects) Rules, 1999.** These are the various environmental guidelines mandated by the MoEF for siting of industries. Topics addressed include (i) prohibition for setting up of certain industries, (ii) establishment of new units with certain conditions, (iii) restrictions on the units in Taj Trapezium and (iv) establishment of new units around archaeological monuments.

13. **Notifications concerning Ecosensitive Zones.** The MoEF has prohibited and/or restricted specified industrial activities in certain areas of the country. These zones are also called ecosensitive zones and are listed below:

- (i) Matheran and surrounding region
- (ii) Mahabaleswar Panchgani region
- (iii) Pachmarhi region
- (iv) Taj Trapezium Zone
- (v) Dahanu Taluka, District Thane, Maharashtra
- (vi) Numaligarh, East of Kaziranga
- (vii) Aravalli Range
- (viii) Doon Valley (Uttar Pradesh)
- (ix) Murud-Janjira, Raigadh District, Maharashtra

14. **Notifications concerning Coastal Regulation Zones.** To further supplement the law on site clearance, there is a notification declaring coastal stretches in various States and Union Territories (namely, Gujarat, Daman and Diu, Maharashtra, Goa, Kerala, Karnataka, Pondicherry, Tamil Nadu, Orissa, West Bengal, Lakshadweep, Andhra Pradesh and Andaman and Nicobar) as Coastal Regulation Zones (CRZs). The notifications aim at regulating activities in the CRZs.

15. **Noise Pollution (Control and Regulation) Rules, 2000, amended 2002.** As per these rules, the noise levels in any area/zone shall not exceed the ambient air quality standards with respect to noise as specified in the Schedule.

16. **The Environmental Audit Notification, 1992.** This notification directs that an environmental audit report be submitted yearly to the Pollution Control Board in cases where consent is required under the Water/Air Act or authorisation under the Hazardous Wastes (Management and Handling) rules.

17. **Manufacture, Use, Import, Export and Storage of Hazardous Micro-Organisms and Genetically Engineered Organism or Cell Rules, 1989.** The Department of Bio-Technology under the Ministry of Science and Technology is the nodal agency for granting licences for manufacture, import and export of micro-organisms and genetically engineered organisms. However, such licences are issued only after the proposal is cleared from the environmental angle by the Ministry of Environment and Forests. For according such clearances, the Ministry has notified the 'Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Micro-organisms and Genetically Engineered Organisms or Cells' in 1989 under the EPA, 1986.

18. The investor is required to submit an application in the prescribed proforma to the Ministry of Environment and Forests. The Genetic Engineering Approval Committee (GEAC) constituted by the MoEF examines the application form and makes recommendations.

19. All industries involving hazardous micro-organisms or genetically engineered organisms, are required to constitute an Institutional Bio-Safety Committee (IBSC) to oversee the planning and execution of various operations in a safe manner and to prepare an on-site emergency plan to deal with any accident which may occur due to a hazardous micro-organism.

20. These rules will apply to infrastructure projects such as those requiring bioremediation of contaminated sites.

21. **The Hazardous Wastes (Management and Handling) Rules, 1989, amended 2003.** These rules lay down the responsibility of the 'occupier' of the infrastructure project for the handling of wastes. The occupier shall take all practical steps to ensure that such wastes are properly handled and disposed of without any adverse effects which may result from such wastes. The occupier shall also be responsible for proper collection, reception, treatment, storage and disposal of these wastes either himself or through the operator of a facility. The rules also specify criteria for the grant of authorizations for the handling of hazardous wastes, rules to be followed during the packaging, labelling and transport of hazardous wastes, inventory of disposal sites, generation and maintenance of records, accident reporting and follow-up.

22. **The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, amended 2000.** These rules apply to an industrial activity in which a hazardous chemical, which satisfies any of the criteria laid down in the rules, and/or isolated storage in which there is involved a threshold quantity of a hazardous chemical are involved. The occupier (who has control of an industrial activity) has to provide evidence to show that he has identified the major accident hazards and taken adequate steps to prevent such major accidents and limit their consequences to persons and the environment and provide the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety. These rules also lay down the criteria for the notification of major accidents, notification of sites and the updating the site notification following changes in the threshold quantity, safety reports, and preparation of on-site and off-site emergency plans by the occupier, as well as information disclosure.

23. **The Biomedical Waste (Management and Handling) Rules, 1998, amended 2003.** These rules apply to all projects which generate, collect, receive, store, transport, treat, dispose, or handle bio medical waste in any form. They deal with the various categories of biomedical waste, segregation, packaging, transportation, storage and disposal of such waste.

24. **Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.** These rules concern chemical accidents - any accident involving a 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. Schedules 2 and 3 of the Rules list the threshold quantities and names of the various chemicals to which they are applicable.

25. **The Batteries (Management and Handling) Rules, 2001.** 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.

**ANNEX E-6:  
E&S REGULATIONS AND OBLIGATIONS, AND AREAS OF APPLICABILITY AT PROJECT SITES**

<b>E&amp;S Regulation</b>	<b>Areas of Applicability at Project Sites</b>	<b>Obligations</b>
The Water (Prevention and Control of Pollution) Act, 1974, amended 1988	Wastewater effluent from camp and construction activities	As per Rule/Clause 20(3), provide PCB information sought by it for preventing or controlling pollution of water regarding the construction, installation, operation or the treatment and disposal systems of the factory (site)
The Water (Prevention and Control of Pollution) Rules, 1975		<p>As per Rule/Clause 21(1), provide access to the PCB or any officer empowered by it for taking samples of water or effluents from the factory for analysis</p> <p>As per Rule/Clause 23 (1) (C), allow entry to the PCB or any person empowered by it, at any time, for the purpose of performing any of the entrusted functions, or for inspecting to ascertain the provisions of the Act are being complied with, or for seizing any plant records, registers, documents or any material object, in case there are reasons to believe that provisions of the Act are being contravened</p> <p>As per Rule/Clause 24 (1), do not knowingly discharge any effluent into the stream, sewer or on land, of quality which is not conforming to the standards prescribed by the PCB</p> <p>As per Rule/Clause 31(1), furnish information to the PCB and other designated agencies, of any accidental or unforeseen event, in which effluents not conforming to the prescribed standards are being discharged, or likely to be discharged into a stream or sewer or on land</p> <p>As per Rule/Clause 33(A), comply with the directions issued in writing by the PCB, within the specified time, as mentioned in the order. The directions may include, i) the closure, prohibition or regulation of any industry, operation or process, or ii) the stoppage or regulation of supply of electricity, water or any other service, and (iii) comply with the conditions as prescribed in the "Consent to Establish" or "Consent to Operate" for discharge of effluents into a stream or sewer or on land</p> <p>As per Rule/Clause 25(1), obtain "Consent to establish" prior to taking any steps to establish any industry, operation or process or any treatment and disposal system which is likely to</p>

E&S Regulation	Areas of Applicability at Project Sites	Obligations
		<p>discharge effluents</p> <p>As per Rule/Clause 26, (i) obtain "Consent to operate" prior to commencing operations of any industry, or any treatment and disposal system which is likely to discharge effluents (ii) apply for renewal of the consent to operate before the expiry of validity period, as specified in the consent granted earlier, in the prescribed form and along with the prescribed fees</p>
The Water (Prevention and Control of Pollution) Cess Act, 1977, amended 2003	Consumption of water for camp and construction activities	As per Section 3(2), 5(1) and Rules 3 & 4, pay water cess, as prescribed within the specified time as indicated in the assessment order, if the industry is included in the specified schedule under the Act
The Water (Prevention and Control of Pollution) Cess Rules, 1978		<p>As per Section 4(1) and Rule 7, affix meters of the prescribed standards for water consumption measurements at places specified by the PCB</p> <p>As per Section 9(a) and Rule 7, provide access to PCB, at all reasonable times, for implementing the provisions of the Act, including testing of the meters for their accuracy</p> <p>As per Section 10 and Rule 8, pay interest at the prescribed rates, in case of delay in paying water cess</p> <p>As per Section 11 and Rule 8, pay penalty for non-payment of cess, within the specified time, not exceeding the amount of cess, in arrears, after being given a reasonable opportunity of hearing</p> <p>As per Section 3(2), 5(1) and Rule 4, (i) submit the "Water Cess Return" in the prescribed form at specified intervals, to the PCB (ii) submit analytical report of the treated waste sample/s for the assessment month along with the form of Cess return and claim the rebate of 25%</p>
The Air (Prevention and Control of Pollution) Act, 1981, amended 1987	Plants and equipment releasing emissions	Comply with the conditions as prescribed in the "Consent to Establish" or "Consent to Operate" for emissions
The Air (Prevention and Control of Pollution)		As per Rule/Clause 21(1), obtain "Consent to establish" prior to taking any steps to establish any industrial plant in an air pollution control area, which is likely to emit air pollutant(s)

E&S Regulation	Areas of Applicability at Project Sites	Obligations
<p>Rules, 1982</p> <p>The Air (Prevention and Control of Pollution) (Union Territories) Rules, 1983</p>		<p>As per Rule/Clause 21(1), obtain "Consent to operate" prior to commencing operations of any industrial plant which is likely to emit air pollutant(s) in an air pollution control area</p> <p>As per Rule/Clause 21(2), apply for renewal of the consent to operate before the expiry of validity period, as specified in the consent granted earlier, in the prescribed form and along with the prescribed fees</p> <p>As per Rule/Clause 21(5), comply with the conditions under this clause</p> <p>As per Rule/Clause 22, no person operating any industrial plant, in any air pollution control area shall discharge or cause or permit to be discharged the emission of any air pollutant in excess of the standards laid down by the State Board under clause (g) of sub-section (1) of section 17</p> <p>As per Rule/Clause 23(1), furnish information to the PCB and other designated agencies, of any accidental or unforeseen act or event in which emissions of air pollutant(s) occurred in excess of the prescribed standards or are likely to occur</p> <p>As per Rule/Clause 24(2), provide all facilities required by the PCB official for the purpose of sampling</p> <p>As per Rule/Clause 25, (i) allow entry to the PCB or any official empowered by it to the industrial established, at all reasonable times, for the purposes of carrying out any of the entrusted functions or for inspecting to ascertain that provisions of the Act are being complied with or for seizing any equipment, plant, records, registers, documents or any other material object if there are reasons to believe that provisions of the act are being contravened (ii) do not discharge air pollutant (s) in excess of the standards prescribed standards by the PCB (iii) provide the PCB any information to enable it to implement the provisions of the Act</p>
<p>The Environment (Protection) Act, 1986, amended 1991</p>	<p>Activities involving raw material consumption, pollution discharge, and</p>	<p>As per Section 7, Rule 3, prevent discharges or emissions of environmental pollutants in excess of the prescribed standards</p>
<p>The Environment</p>		<p>As per Rule/Clause 8, handle hazardous substances in accordance with the procedures and</p>

E&S Regulation	Areas of Applicability at Project Sites	Obligations
(Protection) Rules, 1986, various amendments	hazardous waste and solid waste generation	<p>safeguards as prescribed by the respective authorities</p> <p>As per Rule/Clause 9, furnish information to the prescribed agencies of any accidental or unforeseen event in which environmental pollutant(s) not conforming to the prescribed standards are being discharged, or are likely to be discharged, into the environment</p> <p>As per Rule/Clause 10, allow entry and inspection by any person empowered by the Central Government into the industrial establishment at all reasonable times, for the purpose of performing any of the functions entrusted, or to ascertain compliance with the provisions of the Act or for seizing of any equipment, plant registers, records or documents in case there are reasons to believe that any provision of the Act is being contravened</p> <p>As per Rule/Clause 10(2),11, allow Central Government or any official empowered by it, to take samples of air, water, soil or any other substance from the industry for analysis</p> <p>As per Rule/Clause 12, furnish of information to authorities and agencies in certain cases</p> <p>As per Rule/Clause 14, (i) submit an " Environmental Statement" every year, before 30th September, to the PCB, in case consent is required under the Water/Air Act or authorisation under the Hazardous Wastes (Management and Handling) rules or both (ii) obtain prior "Environmental Clearance from MoEF, in case of a new project or for modernisation/expansion of the existing project, if it falls under the specified schedule, subject to certain conditions</p>
The Environmental Audit Notification, 1992		
The Environmental Standards Notification, 1993		
Manufacture, Use, Import, Export and Storage of Hazardous Micro-Organisms and Genetically Engineered	Activities involving on-site bioremediation	

E&S Regulation	Areas of Applicability at Project Sites	Obligations
Organism or Cell Rules, 1989		
The Public Liability Insurance Act, 1991	Accidents on-site	As per Rule/Clause 3(1), to provide relief, as specified, in case of death, or injury to any person (other than workman), or damage to property from an accident occurring while handling specified hazardous substances, on the principle of no fault
The Public Liability Insurance Rules, 1992		<p>As per Rule/Clause 4(2/2A), to draw insurance policies more than the paid-up capital of the undertaking, but less than Rs. 50 crores, before handling any hazardous substances</p> <p>As per Rule/Clause 4(2C), pay additional amounts, as prescribed, to the insurer not exceeding the amount of premium, as contribution to the Environmental Relief Fund to be established under the Act</p> <p>As per Rule/Clause 9, provide any information required by the Central Government or agencies authorised by it, for ascertaining compliance with the provisions of the Act</p> <p>As per Rule/Clause 10, allow entry and inspection of any person empowered by the Central Government to the place where the industrial activity involving hazardous chemicals is being carried out at all reasonable times, to ascertain compliance with the provisions of the Act</p> <p>As per Rule/Clause 7, pay the amount of an award as specified by the collector in the prescribed manner</p> <p>As per Rule/Clause 7 (3) (C), within such period, deposit such amount in such manner as the Collector may direct</p> <p>As per Rule/Clause 7 (6), The owner against whom the award is made under sub-section (1) fails to deposit the amount of such award within the period specified under sub-section (3), such amount shall be recoverable from the owner, or as the case may be, the insurer as arrears of land revenue or of public demand</p> <p>As per Rule/Clause (12), comply with the directions issued in writing by the Central</p>



E&S Regulation	Areas of Applicability at Project Sites	Obligations
		Government, within the specified time, as mentioned in the order. The directions may include a)Prohibition or regulation of handling of any hazardous substances, or b)Stoppage or regulation of the supply of electricity, water or any other service
Gas Cylinder Rules, 1981		
The National Environmental Tribunal Act, 1995		
The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, amended 2000	Handling of hazardous chemicals in construction activities	<p>As per Rule/Clause 4(2), identify major accident hazards related with industrial activity involving hazardous chemicals, provide relevant information to persons liable to be affected by a major accident, develop information in the form of a safety data sheet, label the specified information on every container of hazardous chemical and follow specified procedures for importing hazardous chemicals</p> <p>As per Rule/Clause 5, Occupier to furnish information required to notify the concerned authorities of a major accident</p> <p>As per Rule/Clause 7(1), furnish information regarding "Notification of sites" for industrial activity involving hazardous chemicals to the concerned authority in the prescribed form at least 3 months before commencing activity</p> <p>As per Rule/Clause 10(1), submit "Safety Report" containing the prescribed information to the concerned authority at least 3 months before making any modifications in compliance to Schedule 8 of the Rules</p> <p>As per Rule/Clause 11(1), send further information within the specified time, as mentioned in the notice, if so desired, by the concerned authority relating to the "Safety Report"</p> <p>As per Rule/Clause 13, prepare up-to-date on-site emergency plans , before commencing an industrial activity involving hazardous chemicals</p> <p>As per Rule/Clause 18(2), provide information on the intention of import of the hazardous</p>

E&S Regulation	Areas of Applicability at Project Sites	Obligations
		<p>chemical to the respective authorities under Schedule 5 of the Rules</p> <p>As per Rule/Clause 18(5), maintain records of imports of hazardous chemicals in the prescribed form (Schedule 10)</p> <p>As per Rule/Clause 18(6), carry out an independent safety audit with the help of an expert, not associated with such industrial activities &amp; forward a copy with his comments within 30 days to that authority</p> <p>As per Rules 10 to 12, (a) carry out an independent safety audit with the help of an expert, not associated with such industrial activities &amp; forward a copy with his comments within 30 days to that authority (b) update safety audit report once a year by conducting a fresh safety audit (c) conduct mockdrills once in six months and communicate compliance to the respective authorities provided in Schedule 5 of the Rules (d) assist the District Collector in the preparation of off-site emergency plans as per serial number 9 of this Schedule 5</p>
<p>The Hazardous Wastes (Management and Handling) Rules, 1989, amended 2003</p>		<p>As per Rule/Clause 4(1), ensure proper collection, reception, treatment, storage and disposal of hazardous wastes by the owner himself or through an operator of the facility for specified hazardous wastes</p> <p>As per Rule/Clause 4A, take adequate steps while handling hazardous waste to contain contaminants and prevent accidents and limit their consequences on human and the environment and provide persons working on the site with information, training and equipment necessary to ensure their safety</p> <p>As per Rule/Clause 5, comply with the conditions specified in the authorisation granted for handling of hazardous wastes</p> <p>As per Rule/Clause 5(2), obtain "grant of authorisation" for handling hazardous wastes from PCB after payment of fees Rs. 2500/-</p> <p>As per Rule/Clause 5(6)(ii), apply for renewal of authorisation before expiry of the validity period as specified in the authorisation granted in the prescribed form</p>

E&S Regulation	Areas of Applicability at Project Sites	Obligations
		<p>As per Rule/Clause 5(8) (i) and 9 (2), submit annual returns by the Occupier in Form 4</p> <p>As per Rule/Clause 5(8) (ii), submit documentary evidence on steps taken, wherever feasible, for reduction in volume/ concentration of hazardous waste generated or recycled or reused</p> <p>As per Rule/Clause 5(8) (iii), fulfill conditions prescribed in the authorization regarding management in an Environmentally Sound Manner (ESM) of Wastes</p> <p>As per Rule/Clause 7(2), ensure packaging, labelling and transportation of hazardous wastes in accordance with the provisions of Motor Vehicles Act, 1988</p> <p>As per Rule/Clause 7(3), all hazardous waste containers should be provided with a general label as given in Form 8"</p> <p>As per Rule/Clause 7(5), provide the transporter with six copies of the manifest as per the 7 colour codes of the manifest system</p> <p>As per Rule/Clause 7(6), obtain NOC from SPCBs of the respective states involved in case of any inter and intra state transport of hazardous wastes</p> <p>As per Rule/Clause 7(7), provide the transporter with relevant information in Form 10 regarding hazardous nature of the wastes and measures to be taken in case of an emergency</p> <p>As per Rule/Clause 9(1), maintain records of operations generating hazardous waste in Form 3</p> <p>As per Rule/Clause 10, report to the PCB any accident at site, or during transportation, while handling hazardous wastes in the prescribed form</p> <p>As per Rule/Clause 16, the occupier, transporter and operator of a facility shall be (i) liable for damages caused to the environment resulting due to improper handling and disposal of hazardous waste listed in schedule 1, 2 and 3 (2) shall be liable to reinstate or restore damaged or destroyed elements of the environment (iii) shall be liable to pay a fine as levied by the SPCB with the approval of the CPCB for any violation of the provisions under these</p>

E&S Regulation	Areas of Applicability at Project Sites	Obligations
Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996		rules
The Biomedical Waste (Management and Handling) Rules, 1998, amended 2003	On-site / construction camp clinics and first-aid centres	As per Rule/Clause (4), ensure that biomedical waste is handled without any adverse effect to human health and the environment  As per Rule/Clause 5(1), dispose of biomedical waste in accordance with Schedule I and Schedule V
Noise Pollution (Control and Regulation) Rules, 2000, amended 2002	Plants, equipment and vehicles	(a) As per Rules/Clause 4(1), ensure that noise levels do not exceed those specified in Schedule (b) follow the conditions stipulated in the letter of Consent by the SPCB (c) Monitor limits for day-time and night-time noise [day-time: 75 dB(A) Leq and night-time: 70 75 dB(A) Leq]
The Batteries (Management and Handling) Rules, 2001		As per Rules/Clause 10(1), the user must ensure that used batteries are not disposed off in any manner other than depositing with the dealer, manufacturer, importer, assembler, registered recycler, reconditioner or at designated collection centres
Motor Vehicle Act, 1988	Light and heavy motor vehicles	

**ANNEX E-7:  
PROHIBITED ACTIVITIES IN CRZ  
(COASTAL REGULATION ZONE NOTIFICATION, 1990, Amended 2001)**

1. Setting up of new industries and expansion of existing industries, except (a) those directly related to water front or directly needing foreshore facilities; and (b) Projects of Department of Atomic Energy.
2. Manufacture or handling or storage or disposal of hazardous substances as specified in the Notifications of the Government of India in the MoEF No. S.O. 594(E) dated 28<sup>th</sup> July 1989, S.O. 966(E) dated 27<sup>th</sup> November, 1989 and GSR 1037(E) dated 5<sup>th</sup> December, 1989; except transfer of hazardous substances from ships to ports, terminals and refineries and vice versa in the port areas.
3. Setting up and expansion of fish processing units including warehousing (excluding hatchery and natural fish drying in permitted areas).
4. Setting up and expansion of units/mechanism for disposal of waste and effluents, except facilities required for discharging treated effluents into the water course with approval under the Water (Prevention and Control of Pollution) Act, 1974; and except for storm water drains.
5. Discharge of untreated wastes and effluents from industries, cities or towns and other human settlements. Schemes shall be implemented by the concerned authorities of phasing out the existing practices, if any, within a reasonable time period not exceeding three years from the date of this notification.
6. Dumping of city or town waste for the purposes of landfilling or otherwise; the existing practice, if any, shall be phased out within a reasonable time not exceeding three year from the date of this Notification.
7. Dumping of ash or any wastes from thermal power stations.
8. Land reclamation, bunding or disturbing the natural course of sea water except those required for construction or modernisation or expansion of ports, harbours, jetties, wharves, quays, slipways, bridges and sea-links and for other facilities that are essential for activities permissible under the notification or for control of coastal erosion and maintenance or clearing of water ways, channels and ports or for prevention of sandbars or for tidal regulators, storm water drains or for structures for prevention of salinity ingress and sweet water recharge.
9. Mining of sands, rocks and other substrata materials, except (a) those rare minerals not available outside the CRZ areas and (b) exploration and extraction of Oil and Natural Gas.
10. Harvesting or withdrawal of groundwater and construction of mechanisms therefore within 200 m of HTL; in the 200 m to 500 m zone it shall be permitted only when done manually through ordinary wells for drinking, horticulture, agriculture and fisheries.
11. Construction activities in ecologically sensitive areas as specified in List-I of this Notification.

12. Any construction activity between the Low Tide Line (LTL) and HTL except facilities for carrying treated effluents and waste water discharges into the sea, facilities for carrying sea water for cooling purposes, oil, gas and similar pipelines and facilities essential for activities permitted under this Notification.

13. Dressing or altering of sand dunes, hills, natural features including landscape changes for beautification, recreational and other such purpose, except as permissible under this Notification.

List-I

- (i) Areas that are ecologically sensitive and important, such as national parks/marine parks, sanctuaries, reserve forests, wildlife habitats, mangroves, corals/coral reefs, areas close to breeding and spawning grounds of fish and other marine life, areas of outstanding natural beauty/historically/heritage areas, areas rich in genetic diversity, areas likely to be inundated due to rise in sea level consequent upon global warming and such other areas as may be declared by the Central Government or the concerned authorities at the State/Union Territory level from time to time
- (ii) Area between LTL and the HTL

## ANNEX E-8: EIA/SIA REVIEW CHECKLIST

1. The checklist is organised in seven sections:
  - (i) Description of the project
  - (ii) Alternatives
  - (iii) Description of the environment likely to be affected by the project
  - (iv) Description of the likely significant effects of the project
  - (v) Description of mitigating measures
  - (vi) Non-technical summary
  - (vii) Quality of presentation
  
2. Within each section there are numbered Review Questions. For some questions notes are provided to assist the reviewer.

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
<b>SECTION 1: DESCRIPTION OF THE PROJECT</b>				
<b>Objectives and physical characteristics of the project</b>				
1.1	Are the need for and objectives of the project explained?			
1.2	Is the programme for implementation of the project described, detailing the estimated length of time and start and finish dates for construction, operation and decommissioning? <i>(this should include any phases of different activity within the main phases of the project, for example extraction phases for mining operations)</i>			
1.3	Are all the main components of the project described <i>(see the Checklist of project Activities in Procedure for Scoping)</i>			
1.4	Is the location of each project component identified, using maps, plans and diagrams as necessary?			
1.5	Is the layout of the site (or sites) occupied by the project described? <i>(including ground levels, buildings, other physical structures, underground works, coastal works, storage facilities, water features, planting, access corridors, boundaries)</i>			
1.6	For linear projects, are the route corridor, the vertical and horizontal alignment and any tunneling and earthworks described?			
1.7	Are the activities involved in construction of the project all described?			
1.8	Are the activities involved in operation of the project all described?			
1.9	Are the activities involved in			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
	decommissioning the project all described? <i>(e.g. closure, dismantling, demolition, clearance, site restoration, site re-use etc.)</i>			
1.10	Are any additional services required for the project all described? <i>(e.g. transport access, water, sewerage, waste disposal, electricity, telecoms)</i> or developments <i>(e.g. roads, harbours, powerlines, pipelines)</i>			
1.11	Are any developments likely to occur as a consequence of the project identified? <i>(e.g. new housing, roads, water or sewerage infrastructure, aggregate extraction)</i>			
1.12	Are any existing activities which will alter or cease as a consequence of the project identified?			
1.13	Are any other existing or planned developments with which the project could have cumulative effects identified?			
<b>Size of the project</b>				
1.14	Is the area of land occupied by each of the permanent project components quantified and shown on a scaled map? <i>(including any associated access arrangements, landscaping and ancillary facilities)</i>			
1.15	Is the area of land required temporarily for construction quantified and mapped?			
1.16	Is the reinstatement and after use of land occupied temporarily for operation of the project described? <i>(e.g. land used for mining or quarrying)</i>			
1.17	Is the size of any structures or other works developed as part of the project identified? <i>(e.g. the floor area and height of buildings, the size of excavations, the area or height of planting, the height of structures such as embankments, bridges of chimneys, the flow or depth of water)</i>			
1.18	Is the form and appearance of any structures or other works developed as part of the project described? <i>(e.g. the type, finish and colour of materials, architectural design of buildings and structures, plant species, ground surfaces, etc.)</i>			
1.19	For urban or similar development projects, are the numbers and other characteristics of new populations or business communities described?			
1.20	For projects involving the displacement of people or businesses, are the numbers and			



No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
	other characteristics of those displaced described?			
1.21	For new transport infrastructure or projects generating substantial traffic flows, is the type, volume, temporal pattern and geographical distribution of new traffic generated or diverted as a consequence of the project described?			
<b>Production processes and resources used</b>				
1.22	Are all the processes involved in operating the project described? ( <i>e.g. manufacturing or engineering processes, primary raw material production, agricultural or forestry production methods, extraction processes</i> )			
1.23	Are the types and quantities of outputs produced by the project described? ( <i>these could be primary or manufactured products, goods such as power or water or services such as homes, transport, retailing, recreation, education, municipal services (water, waste, etc.)</i> )			
1.24	Are the types and quantities of raw materials and energy needed for construction and operation discussed?			
1.25	Are the E&S implications of the sourcing of raw materials discussed?			
1.26	Is efficiency in use of energy and raw materials discussed?			
1.27	Are any hazardous materials used, stored, handled or produced by the project identified and quantified? <ul style="list-style-type: none"> <li>· During construction</li> <li>· During operation</li> <li>· During decommissioning</li> </ul>			
1.28	Are the transport of raw materials to the project and the number of traffic movements involved discussed? ( <i>including road, rail and sea transport</i> ) <ul style="list-style-type: none"> <li>· During construction</li> <li>· During operation</li> <li>· During decommissioning</li> </ul>			
1.29	Is employment created or lost as a result of the project discussed? <ul style="list-style-type: none"> <li>· During construction</li> <li>· During operation</li> <li>· During decommissioning</li> </ul>			
1.30	Are the access arrangements and the number of traffic movements involved in			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
	bringing workers and visitors to the project estimated? · During construction · During operation · During decommissioning			
1.31	Is the housing and provision of services for any temporary or permanent employees for the project discussed? ( <i>relevant for projects requiring migration of a substantial new workforce into the area for either construction or the long term</i> )			
<b>Residues and emissions</b>				
1.32	Are the types and quantities of solid waste generated by the project identified? ( <i>including construction or demolition wastes, surplus spoil, process wastes, by-products, surplus or reject products, hazardous wastes, household or commercial wastes, agricultural or forestry wastes, site clean-up wastes, mining wastes, decommissioning wastes</i> ) · During construction · During operation · During decommissioning			
1.33	Are the composition and toxicity or other hazards of all solid wastes produced by the project discussed?			
1.34	Are the methods for collecting, storing, treating, transporting and finally disposing of these solid wastes described?			
1.35	Are the locations for final disposal of all solid wastes discussed?			
1.36	Are the types and quantities of liquid effluents generated by the project identified? ( <i>including site drainage and run-off, process wastes, cooling water, treated effluents, sewage</i> ) · During construction · During operation · During decommissioning			
1.37	Are the composition and toxicity or other hazards of all liquid effluents produced by the project discussed?			
1.38	Are the methods for collecting, storing, treating, transporting and finally disposing of these liquid effluents described?			
1.39	Are the locations for final disposal of all liquid effluents discussed?			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
1.40	<p>Are the types and quantities of gaseous and particulate emissions generated by the project identified? (<i>including process emissions, fugitive emissions, emissions from combustion of fossil fuels in stationary and mobile plant, emissions from traffic, dust from materials handling, odours</i>)</p> <ul style="list-style-type: none"> <li>· During construction</li> <li>· During operation</li> <li>· During decommissioning</li> </ul>			
1.41	<p>Are the composition and toxicity or other hazards of all emissions to air produce by the project discussed?</p>			
1.42	<p>Are the methods for collecting, treating and finally discharging these emissions to air described?</p>			
1.43	<p>Are the locations for discharge of all emissions to air identified and the characteristics of the discharges identified? (<i>e.g. height of stack, velocity and temperature of release</i>)</p>			
1.44	<p>Is the potential for resource recovery from wastes and residues discussed? (<i>including re-use, recycling or energy recovery from solid waste and liquid effluents</i>)</p>			
1.45	<p>Are any sources of noise, heat, light or electromagnetic radiation from the project identified and quantified? (<i>including equipment, processes, construction works, traffic, lighting, etc.</i>)</p>			
1.46	<p>Are the methods for estimating the quantities and composition of all residues and emissions identified and any difficulties discussed?</p>			
1.47	<p>Is the uncertainty attached to estimates of residues and emissions discussed?</p>			
<b>Risks of accidents and hazards</b>				
1.48	<p>Are any risks associated with the project discussed?</p> <ul style="list-style-type: none"> <li>· Risks from handling of hazardous materials</li> <li>· Risks from spills fire, explosion</li> <li>· Risks of traffic accidents</li> <li>· Risks from breakdown or failure of processes or facilities</li> <li>· Risks from exposure of the project to natural disasters (earthquake, flood, landslip, etc.)</li> </ul>			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
1.49	Are measures to prevent and respond to accidents and abnormal events described? <i>(preventive measures, training, contingency plans, emergency plans, etc.)</i>			
<b>Any other questions on project description</b>				
<b>SECTION 2: CONSIDERATION OF ALTERNATIVES</b>				
2.1	Is the process by which the project was developed described and are alternatives considered during this process described? <i>(See guidance on types of alternatives which may be relevant in Procedure for Scoping)</i>			
2.2	Is the baseline situation in the 'No project' situation described?			
2.3	Are the alternatives realistic and genuine alternatives to the project?			
2.4	Are the main reasons for choice of the proposed project explained, including any E&S reasons for the choice?			
2.5	Are the main E&S effects of the alternatives compared with those of the proposed project?			
<b>Any other questions on consideration of alternatives</b>				
<b>SECTION 3: DESCRIPTION OF ENVIRONMENT AND PEOPLE LIKELY TO BE AFFECTED BY THE PROJECT</b>				
<b>Aspects of the environment</b>				
3.1	Are the existing land uses of the land to be occupied by the project and the surrounding area described and are any people living on or using the land identified? <i>(including residential, commercial, industrial, agricultural, recreational and amenity land uses and any buildings, structures or other property)</i>			
3.2	Are the topography, geology and soils of the land to be occupied by the project and the surrounding area described?			
3.3	Are any significant features of the topography or geology of the area described and are the conditions and use of soils described? <i>(including soil quality)</i>			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
	<i>stability and erosion, agricultural use and agricultural land quality)</i>			
3.4	Are the fauna and flora and habitats of the land to be occupied by the project and the surrounding area described and illustrated on appropriate maps?			
3.5	Are species populations and characteristics of habitats that may be affected by the project described and are any designated or protected species or areas defined?			
3.6	Is the water environment of the area described? <i>(including running and static surface waters, groundwater, estuaries, coastal waters and the sea and including run off and drainage. Not relevant if water environment will not be affected by the project)</i>			
3.7	Are the hydrology, water quality and use of any water resources that may be affected by the project described? <i>(including use for water supply, fisheries, angling, bathing, amenity, navigation, effluent disposal)</i>			
3.8	Are local climatic and meteorological conditions and existing air quality in the area described? <i>(not relevant if the atmospheric environment will not be affected by the project)</i>			
3.9	Is the existing noise climate described? <i>(not relevant if acoustic environment will not be affected by the project)</i>			
3.10	Is the existing situation regarding light, heat and electromagnetic radiation described? <i>(not relevant if these characteristics of the environment will not be affected by the project)</i>			
3.11	Are any material assets in the area that may be affected by the project described? <i>(including buildings, other structures, mineral resources, water resources)</i>			
3.12	Are any locations or features of archaeological, historic, architectural or other community or cultural importance in the area that may be bisected the project described, including any designated or protected sites?			
3.13	Is the landscape or townscape of the area that may be affected by the project described, including any designated or			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
	protected landscapes and any important views or viewpoints?			
3.14	Are demographic, social and socio-economic conditions ( <i>e.g. employment</i> ) in the area described?			
3.15	Are any future changes in any of the above aspects of the environment that may occur in the absence of the project, described? ( <i>the so-called Moving Baseline or 'No project' situation</i> )			
<b>Data collection and survey methods</b>				
3.16	Has the study area been defined widely enough to include all the area likely to be significantly affected by the project?			
3.17	Have all relevant national and local agencies been contacted to collect information on the baseline environment?			
3.18	Have sources of data and information on the existing environment (including social issues) been adequately referenced?			
3.19	Where surveys have been undertaken as part of the E&S studies to characterize the baseline environment are the methods used, any difficulties encountered and any uncertainties in the data described?			
3.20	Were the methods used appropriate for the purpose?			
3.21	Are any important gaps in the data on the existing environment (including social issues) identified and the means used to deal with these gaps during the assessment explained?			
3.22	If surveys would be required to adequately characterise the baseline conditions but they have not been practicable for any reason, are the reasons explained and proposals set out for the surveys to be undertaken at a later stage?			
<b>Any other questions on description of the environment</b>				
<b>SECTION 4: DESCRIPTION OF LIKELY SIGNIFICANT E&amp;S EFFECTS OF THE PROJECT</b>				
<b>Scoping of effects (See Procedure for Scoping)</b>				
4.1	Is the process by which the scope of the E&S studies were defined described?			
4.2	Is it evident that a systematic approach to scoping was adopted?			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
4.3	Is it evident that full consultation was carried out during scoping?			
4.4	Are the comments and views of consultees presented?			
<b>Prediction of direct effects</b>				
4.5	Are direct, primary effects on land uses, people and property described and where appropriate quantified?			
4.6	Are direct, primary effects on geological features and characteristics of soils described and where appropriate quantified?			
4.7	Are direct, primary effects on fauna and flora and habitats described and where appropriate quantified?			
4.8	Are direct, primary effects on the hydrology and water quality of water features described and where appropriate quantified?			
4.9	Are direct, primary effects on uses of the water environment described and where appropriate quantified?			
4.10	Are direct, primary effects on air quality and climatic conditions described and where appropriate quantified?			
4.11	Are direct, primary effects on the acoustic environment (noise or vibration) described and where appropriate quantified?			
4.12	Are direct, primary effects on heat, light or electromagnetic radiation described and where appropriate quantified?			
4.13	Are direct, primary effects on material assets and depletion of non-renewable natural resources ( <i>e.g. fossil fuels, minerals</i> ) described?			
4.14	Are direct, primary effects on locations or features of cultural importance described?			
4.15	Are direct, primary effects on the quality of the landscape and on views and viewpoints described and where appropriate illustrated?			
4.16	Are direct, primary effects on demography, social and socio-economic condition in the area described and where appropriate quantified?			
<b>Prediction of secondary, temporary, short-term, permanent, long-term, accidental, indirect, cumulative effects</b>				
4.17	Are secondary effects on any of the above aspects of the environment caused by			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
	primary effects on other aspects described and where appropriate quantified? ( <i>e.g. effects on fauna, flora or habitats caused by soil, air or water pollution or noise; effects in uses of water caused by changes in hydrology or water quality; effects on archaeological remains caused by desiccation of soils</i> )			
4.18	Are temporary, short term effects caused during construction or during time limited phases of project operation or decommissioning described?			
4.19	Are permanent effects on the environment caused by construction, operation or decommissioning of the project described?			
4.20	Are long term effects on the environment caused over the lifetime of project operations or caused by build up of pollutants in the environment described?			
4.21	Are effects which could result from accidents, abnormal events or exposure of the project to natural or man-made disasters described and where appropriate quantified?			
4.22	Are effects on the environment caused by activities ancillary to the main project described? ( <i>ancillary activities are part of the project but usually take place distant from the main project location; e.g. construction of access routes and infrastructure, traffic movements, sourcing of aggregates or other raw materials, generation and supply of power, disposal of effluents or wastes</i> )			
4.23	Are indirect effects on the environment caused by consequential development described? ( <i>consequential development is other projects, not part of the main project, stimulated to take place by implementation of the project e.g. to provide new goods or services needed for the project, to house new populations or businesses stimulated by the project</i> )			
4.24	Are cumulative effects on the environment off the project together with other existing or planned developments in the locality described? ( <i>different future scenarios including a worst case scenario should be described</i> )			



No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
4.25	Are the geographic extent, duration, frequency, reversibility and probability of occurrence of each effect identified as appropriate?			
<b>Prediction of effects on human health and sustainable development issues</b>				
4.26	Are primary and secondary effects on human health and welfare described and where appropriate quantified? ( <i>e.g. health effects caused by release of toxic substances to the environment, health risks arising from major hazards associated with the project, effects caused by changes in disease vectors caused by the project, changes in living conditions, effects on vulnerable groups</i> )			
4.27	Are impacts on issues such as biodiversity, global climate change and sustainable development discussed where appropriate?			
<b>Evaluation of the significance of effects (See <i>Criteria for Evaluating Significance of Impacts in Procedure for Scoping</i>)</b>				
4.28	Is the significance or importance of each predicted effect discussed in terms of its compliance with legal requirement and the number, importance and sensitivity of people, resources or other receptors affected?			
4.29	Where effects are evaluated against legal standards or requirements are appropriate local, national or international standards used and relevant guidance followed?			
4.30	Are positive effects on the environment described as well as negative effects?			
4.31	Is the significance of each effect clearly explained?			
<b>Impact assessment methods</b>				
4.32	Are methods used to predict effects described and are the reasons for their choice, any difficulties encountered and uncertainties in the results discussed?			
4.33	Where there is uncertainty about the precise details of the project and its impact on the environment are worst case predictions described?			
4.34	Where there have been difficulties in compiling the data needed to predict or evaluate effects are these difficulties acknowledged and their implications for the results discussed?			
4.35	Is the basis for evaluating the significance			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
	or importance of impacts clearly described?			
4.36	Are impacts described on the basis that all proposed mitigation has been implemented? i.e. are residual impacts described?			
4.37	Is the level of treatment of each effect appropriate to its importance for the development consent decision? Does the discussion focus on the key issues and avoid irrelevant or unnecessary information?			
4.38	Is appropriate emphasis given to the most severe, adverse effects of the project with lesser emphasis given to less significant effects			
<b>Any other questions relevant to description of E&amp;S effects</b>				
<b>SECTION 5: DESCRIPTION OF MITIGATION MEASURES</b>				
5.1	Where there are significant adverse effects on any aspect of the environment is the potential for mitigation of these effects discussed?			
5.2	Are any measures which the developer proposes to implement to mitigate effects clearly described and their effect on the magnitude and significance of impacts clearly explained?			
5.3	If the effect of mitigation measures on the magnitude and significance of impacts is uncertain is this explained?			
5.4	Is it clear whether the developer has made a binding commitment to implement the proposed mitigation or that the mitigation measures are just suggestions or recommendations?			
5.5	Are the developer's reasons for choosing the proposed mitigation explained?			
5.6	Are responsibilities for implementation of mitigation including funding clearly defined?			
5.7	Where mitigation of significant adverse effects is not practicable or the developer has chosen not to propose any mitigation are the reasons for this clearly explained?			
5.8	Is it evident that the EA/SA Team and the developer have considered the full range of possible approaches to mitigation including			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
	measures to reduce or avoid impacts by alternative strategies or locations, changes to the project design and layout, changes to methods and processes, "end of pipe" treatment, changes to implementation plans and management practices, measures to repair or remedy impacts and measures to compensate impacts?			
5.9	Are arrangements proposed to monitor and manage residual impacts?			
5.10	Are any negative effects of the proposed mitigation described?			
<b>Any other questions on mitigation measures</b>				
<b>SECTION 6: NON-TECHNICAL SUMMARY</b>				
6.1	Does the EAR/SAR include a Non-Technical summary?			
6.2	Does the summary provide a concise but comprehensive description of the project, its environment, the effects of the project on the environment and the proposed mitigation?			
6.3	Does the summary highlight any significant uncertainties about the project and its E&S effects?			
6.4	Does the summary explain the development consent process for the project and the role of EA/SA in this process?			
6.5	Does the summary provide an overview of the approach to the assessment?			
6.6	Is the summary written in non-technical language, avoiding technical terms, detailed data and scientific discussion?			
6.7	Would it be comprehensible to a lay member of the public?			
<b>Any other questions on non-technical summary</b>				
<b>SECTION 7: QUALITY OF PRESENTATION</b>				
7.1	Is the EAR/SAR available in one or more clearly defined documents?			
7.2	Is the document(s) logically organised and clearly structured so that the reader can locate information easily?			

No.	Review Question	Relevant?	Adequately addressed?	Any further information needed?
7.3	Is there a table of contents at the beginning of the document(s)			
7.4	Is there a clear description of the process which has been followed?			
7.5	Is the presentation comprehensive but concise, avoiding irrelevant data and information?			
7.6	Does the presentation make effective use of tables, figures, maps, photographs and other graphics?			
7.7	Does the presentation make effective use of annexes or appendices to present detailed data not essential to understanding the main text?			
7.8	Are all analyses and conclusions adequately supported with data and evidence?			
7.9	Are all sources of data properly referenced?			
7.10	Is consistent terminology used throughout the document(s)?			
7.11	Does it read as a single document with cross referencing between sections used to help the reader navigate through the document(s)?			
7.12	Is the presentation demonstrably fair and as far as possible impartial and objective?			
<b>Any other questions on non-technical summary</b>				

**Table: Overall Appraisal of the EAR/SAR**

No.	Review Topic	Grade	Comment
1	Description of the project		
2	Alternatives		
3	Description of the environment likely to be affected by the project		
4	Description of the likely significant effects of the project		
5	Description of mitigating measures		
6	Non-technical summary		
7	Quality of presentation		
<b>Overall assessment:</b>			
<b>Comments:</b>			

## **ANNEX E-9: TERMS OF REFERENCE FOR ENVIRONMENT AND SOCIAL ASSESSMENT**

1. The consultant shall under take the detailed environmental and social assessment in accordance with the standard set by the Government of India / State Government for infrastructure construction Projects.

### **A. Environmental Impact Assessment**

2. Environment impact assessment or initial environment examination be carried out in accordance to the applicable laws/rules/guidelines set out by appropriate body/organization (for e.g. the Government of India, State Government and/or concerned MDB).

3. The consultant should carry out preliminary environmental screening to assess the direct and induced impacts due to the Project.

4. The consultant shall ensure to document baseline conditions relevant to the Project with the objective to establish the benchmarks.

5. The consultant shall assess the potential significant impacts and identify the mitigative measures to address these impacts adequately.

6. The consultant shall do the analysis of alternatives incorporating environmental concerns. This should include with and without scenario and modification incorporated in the proposed Project due to environment considerations.

7. The consultant shall give special attention to the environmental enhancement measures in the Project for the following:

- (i) Cultural property enhancement along the highways
- (ii) Bus bays and bus shelters including review of their location
- (iii) Highway side landscape and enhancement of the road junctions
- (iv) Enhancement of highway side water bodies
- (v) Redevelopment of the borrow areas located on public land

8. The consultant shall prepare the Bill of Quantities (BOQ) and technical specifications for all its items of work in such a way that these may be readily integrated to the construction contracts.

9. The consultant shall establish a suitable monitoring network with regard to air, water and noise pollution. The consultant will also provide additional inputs in the areas of performance indicators and monitoring mechanisms for environmental components during construction and operational phase of the Project.

10. The consultant shall provide the cost of mitigation measures and ensure that environmental related staffing, training and institutional requirements are budgeted in Project cost.

11. The consultant shall prepare the application forms and obtain forestry and environmental clearances from the respective authorities including the SPCBs and the MoEF on behalf of CLIENT.

12. The consultant will make presentation, if required, in defending the Project to the MoEF Infrastructure Committee.

13. The consultant shall identify and plan for plantation of the suitable trees along the existing highway in accordance with Indian Road Congress (IRC) guidelines.

14. The consultant shall assist in providing appropriate input in preparation of relevant environment and social sections of the Project.

## **B. Social Impact Assessment**

15. The consultant would conduct base line social-economic and census survey to assess the impacts on the people, properties and loss of livelihood. The social-economic survey will establish the benchmark for monitoring of R&R activities.

16. A social assessment is conducted for the entire Project to identify mechanisms to improve Project designs to meet the needs of different stakeholders. A summary of stakeholders discussions, issue raised and how the Project design was developed to meet stakeholders need would be prepared.

17. The consultant shall prepare Land Acquisition Plan on revenue map and assist CLIENT in acquisition of land under various Acts.

18. The consultant would prepare Resettlement and Rehabilitation Plan, assess feasibility and effectiveness of income restoration strategies and suitability and availability to relocation sites as per guidelines provided in the National Policy on Resettlement and Rehabilitation (2003). All untitled occupants are recorded at the initial stages and identify cards will be issued to ensure there is no further influx of people into the Project area. All consultations with affected persons (to include list of participants) should be fully documented and records made available to CLIENT.

19. Assessment of the impact of the Project on the poor and vulnerable groups along the Project road corridor shall be based on:

- (i) The identified impacts, developing entitlement matrix for the Project Affected Families
- (ii) Assessment on social issues such as indigenous people, gender, HIV/AIDS, labour including child labour
- (iii) Implementation budgets, sources and timing of funding and schedule of tasks
- (iv) Responsibility of tasks, institutional arrangements and personnel for delivering entitlement and plans to build institutional capacity
- (v) Internal and external Monitoring plans, key monitoring indicators and grievance redressal mechanism
- (vi) Incorporating any other suggestions of the CLIENT, till the acceptance of the reports by the CLIENT

## **C. Reporting Requirements of EIA**

20. The consultant would prepare the stand-alone reports as per the guidelines provided by the Government of India/State Government, with contents as per the following:

- (i) Executive Summary
- (ii) Description of the Project
- (iii) Environmental setting of the Project
- (iv) Identification and categorization of the potential impacts (during pre-construction, construction and operation periods)
- (v) The public consultation process
- (vi) Policy, legal and administrative framework: This would include mechanisms at the states and national level for operational policies. This would also include a description of the organizational and implementation mechanism recommended for this Project
- (vii) Typical plan or specific designs for all additional environmental items as described in the scope of work
- (viii) Incorporating any other as per the suggestions of the CLIENT, till the acceptance of the reports by the CLIENT
- (ix) EMP Reports for each Contract Package based on uniform methodology and processes. The consultant will also ensure that the EMP has all the elements for it to be a legal document. The EMP reports would include the following:
- (x) Brief description of the Project, purpose of the EMP, commitments on incorporating environmental considerations in the design, construction and operations phases of the Project and institutional arrangements for implementing the EMP
- (xi) A detailed EMP for construction and operational phases with recourse to the mitigation measures for all adverse impacts
- (xii) Detailed plans for highway-side tree plantation (as part of the compensatory afforestation component)
- (xiii) Environmental enhancement measures would be incorporated. Enhancement measures would include items described in the scope of work and shall be complete with plans, designs, BOQ and technical specifications
- (xiv) Environmental monitoring plans during and after construction including scaling add measurement techniques for the performance indicators selected for monitoring
- (xv) The EMP should be amendable to be included in the contract documents for the works
- (xvi) Incorporating any other as per the suggestions of the CLIENT, till the acceptance of the reports by the CLIENT

#### **D. Reporting requirements of RAP**

- (i) Analysis on the Resettlement Action Plan should be conducted based on the National Policy on Resettlement and Rehabilitation (2003). Content of the report should cover:
- (ii) Executive Summary
- (iii) Description of Project
- (iv) Objectives of the Project
- (v) The need for resettlement in the Project and evaluation of measures to minimize resettlement
- (vi) Definition of Project Affected Peoples and the eligibility criteria
- (vii) Description and results of public consultation and plans for continued participation of Project Affected Peoples
- (viii) Census and survey results-number affected, how are they affected and what impacts will they experience

- (ix) Legal and entitlement policy framework-support principles for different categories of impact
- (x) Arrangements for monitoring and evaluation (internal and external)
- (xi) Implementation schedule for resettlement which is linked to the civil works contract
- (xii) A matrix of scheduled activities linked to land acquisition procedures to indicate clearly what steps and actions will be taken at different stages and the time frame
- (xiii) The payment of compensation and resettlement during the acquisition process
- (xiv) An itemized budget (replacement value for all assets) and unit costs for different assets



## ANNEX E-10: ToR FOR DETAILED ENVIRONMENTAL IMPACT ASSESSMENT OF HIGH IMPACT CATEGORY HIGHWAY SUB-PROJECTS<sup>1</sup>

### I. General

1. Sub-project EA is the stage when more thorough assessments are done. It includes carrying out detailed surveys, analysis of data, assessment of impacts and corresponding mitigation and/or enhancement measures, and preparing various reports that include the detailed EAR and EMPs. The Consultants shall carry out the sub-project EA based on the revised ToR which is the outcome of the scoping process (as described in the Attachment “The Scoping Process and Corresponding Outputs” in this Index). The work plans and methods employed shall be as per those described in the Scoping Report.

2. **Baseline Surveys.** The Consultants will (a) collect information from secondary sources that are relevant to understanding the baseline, as well as design and mitigation of enhancement measures, as pertaining to physical, biological and socio-cultural environments, (b) carry out site visits and investigations of all environmentally sensitive locations and document them on base maps to identify conflict point with preliminary designs (including verification of these from authentic sources of information, such as from revenue and forest records, etc.), and (c) prepare detailed specific maps showing details of candidate sites for environmental enhancements.

3. **Additional Baseline Surveys.** The Consultants shall collect information on the existing environmental scenario from secondary sources, and identify gaps to be filled, relevant to the environmental screening needs from primary surveys. The Consultants shall survey the environmentally sensitive locations on and along the sub-project road, as well as within the sub-project’s influence area. The Consultants shall extensively use the video and other records of the project road (carried out as part of engineering surveys). All regionally and nationally recognized environmental resources and features within the sub-project’s influence area shall be clearly identified and studied in relation to the activities proposed. Typically, these will include stretches with significant roadside trees, environmental and common property resources such as forests, large water bodies, and major physical cultural properties. All these may be depicted using a line diagram or a strip map.

4. All surveys will be carried out in compliance with GoI standards / guidelines / norms. Wherever such guidelines / norms are unavailable, the techniques, tools and samples employed for the surveys shall conform to international practices. Whenever directly relevant secondary data is available, these should be used, while indirectly relevant data should be verified through primary survey. Environmental quality (air, water and noise) monitoring shall include an adequate number of samples, as established on a sampling network, so as to provide a representative sample of the entire sub-project corridor. Additional sample data for sensitive environmental/ecological receptors, if any, shall be collected such as to analyse and predict the possible impacts to a large degree and precision of acceptable professional standards. Further, additional specialized surveys, such as biodiversity assessment survey, and/or hydrological surveys shall be conducted, if and when recommended by environmental scoping. It is recommended that environmental surveys be co-ordinated with social and engineering surveys as far as practical.

5. The Consultants shall also collect information on the various prevailing environmental

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<sup>1</sup> Adapted from “Management of Environmental and Social Issues in Highway Projects in India” by the World Bank

and forest laws / regulations so as to carry out the sub-project EA in conformity with these.

6. **Stakeholder Consultation.** The Consultants shall undertake community consultation sessions at the State, District, Village and Road-side Community levels. The objective of these sessions shall be to improve the sub-project's interventions with regard to environmental management. At least two rounds of consultations shall be carried out – the first to seek views from the stakeholders on environmental issues and ways that these could be resolved, and the second to provide feedback to stakeholders that their views have been taken into account for the sub-project (when the EMPs are nearly complete). Following this the final feedback received shall be analysed, and the Consultants shall determine how these shall be addressed in the Final EMP and sub-project designs. The Consultants shall co-ordinate the entire consultation programme with social and engineering consultants.

7. **Environmental Analysis of Alternatives.** As the overall highway alignments are final at this stage, the environmental analysis of alternatives shall focus on location-specific issues relating to cross-sections, materials and their sources from an environmental management perspective. This analysis shall also cover comparisons in relation to siting, design, technology selection, construction techniques and phasing, and operating and maintenance procedures.

8. **Impact Prediction and Management.** The Consultants shall determine the potential impacts due to the sub-project through identification, analysis and evaluation on sensitive areas (natural habitats, sites of historic, cultural and conservation importance), urban settlements and villages / agricultural areas. These should be classified as significant positive and negative impacts, immediate and long-term impacts, and unavoidable and reversible impacts

9. For each impact predicted, feasible and cost-effective mitigation measures shall be identified to reduce potentially significant adverse environmental impacts to acceptable levels. The capital and recurring costs of the measures, and the institutional training and monitoring requirements to effectively implement these measures shall be determined. The Consultants shall explore and recommend environmental enhancements including roadside landscaping, separation of non-motorized lanes in an aesthetically appealing manner, provision of pilgrimage pathways, and development of cultural properties, and improving access along the corridor. At this stage, it would be important to identify issues that cannot be dealt with during the sub-project preparation stage, but should be undertaken during the implementation stage.

10. **Institutional Arrangements to Manage Environmental Impacts Effectively.** The Consultants shall identify institutional and organisational needs to implement the recommendations of the sub-project EA, and to propose steps to strengthen / expand them if needed. This may extend to new agency functions, inter-sectoral arrangements, management procedures and training, staffing, operation and maintenance, training and budgeting.

11. **Training of Staff.** The Consultants shall develop and implement a plan for training the IIFCL staff. This plan must specify types of training, participants for each type, number of sessions, duration of each session and when they should be conducted. At the end of the training, when the draft EMPs are ready, brief reports shall be prepared on the training conducted and observations relevant for future training, if any.

12. **Other assistance to be provided by the Consultants.** The Consultants shall support IIFCL to furnish any relevant information required for obtaining clearance from several state and central government agencies. These may include (a) assistance in the submission of application for clearance of reserved or protected forests to the Forest Department, (b) completion of forms

and submission of the same for obtaining No-Objection certificates (or NOCs) under the Water and Air Acts from SPCBs, (c) completion and submission of the MoEF questionnaire for Environmental Appraisal of the sub-project, (d) assistance in presentation to the Wildlife Board of the MoEF in obtaining clearance for the section of the corridor passing through wildlife reserves or sanctuaries and other protected areas (if any), (e) assistance in submission of any other clearance requirements with regard to environmental components relevant to the sub-project.

13. The Consultants shall discuss and co-ordinate with the engineering and social Consultants, the findings and recommendations of the sub-project EA in a *continuous manner*. The Consultants shall then prepare an EAR, which will be revised in consideration of the comments of IIFCL and the concerned MDB (if any).

14. **Environmental Management Plans.** Based on the predicted environmental impacts, separate EMPs, for each construction contract package, shall be prepared in such a manner that they can be incorporated in the bidding/contract documents. The EMP shall be prepared to fulfil all the requirements of the GoI, and at the minimum, shall meet the requirements of the concerned MDB. The EMP shall also include a list of design modifications recommended by the sub-project EA along with the road chainages. sion of the MoEF questionnaire for Environmental Appraisal of the sub-project, (d) assistance in presentation to the Wildlife Board of the MoEF in obtaining clearance for the section of the corridor passing through wildlife reserves or sanctuaries and other protected areas (if any), (e) assistance in submission of any other clearance requirements with regard to environmental components relevant to the sub-project. The report shall be revised in consideration of the comments of IIFCL and the concerned MDB (if any).

15. **Environmental Mitigation and Enhancement Measures.** The EMP shall describe feasible and cost-effective measures to prevent or reduce significant negative impacts to acceptable levels. Apart from mitigation of potential adverse impacts on environmental components, the EMP shall identify opportunities that exist for enhancement of environmental quality along the corridor. This shall include the enhancement of specific locations as water bodies, enhancement of scenic areas along the corridor, etc. residual impacts from environmental measures shall also be clearly identified. The EMP shall include specific or sample plans for common road construction-related activities, such as the management and redevelopment of quarries, borrow areas and construction camps, and good practice guides related to construction and upkeep of plant and machinery. The EMP shall include detailed specification, bill of quantities, execution drawings and contracting procedures for execution of the environmental mitigation and enhancement measures suggested, separate for pre-construction, construction and operation periods. Responsibilities for execution and supervision of each of these mitigation and enhancement measures shall be specified in the EMP. A plan for continued consultation to be conducted during the implementation stage of the sub-project shall also be prepared.

16. **Capacity Building and Training.** The EMP shall describe the implementation arrangement for the sub-project, especially the capacity building proposals including the staffing of the environmental unit (as and when recommended) to implement the environmental mitigation and enhancement measures. For each staff position recommended to be created, detailed job responsibilities will be defined. Equipment and resources required for the environmental unit shall be specified, and bill of quantities be prepared. A training plan and schedule shall be prepared specifying the target groups (environmental unit, supervision consultants, and contractors) for individual training programmes, the content and mode of

training.

17. **Monitoring and Reporting.** The EMP shall specify the environmental supervision, monitoring and auditing requirements. The monitoring programme shall specify parameters, reference standards, monitoring methods, frequency, duration, location, reporting responsibilities, and any other necessary inputs (e.g. training). In addition, the programme will specify what actions shall be taken and by whom in the event that the proposed mitigation measures fail, either partially or totally, to achieve the level of environmental protection expected. Customised formats for reporting on the progress of EMP activities to different stakeholders shall be prepared and included in the EMPs.

18. Each EMP shall list all mandatory government clearance conditions and the status of procuring the clearances. Additionally, the EMPs shall include as separate attachments, if applicable, Natural Habitat Plan and/or Cultural Properties Plan, etc. to satisfy the requirements of MDB (if any) policies.

19. Each EMP shall provide a summary description of where and how the recommendations of EA and EMP are made part of the sub-project's design, construction schedule, and all contract documents.

**ANNEX E-11: PUBLIC CONSULTATION PROCESS DEFINED BY  
MoEF'S EIA NOTIFICATION, 2006**

1. The Public Consultation shall ordinarily have two components comprising of:
  - (i) A public hearing at the site or in its close proximity- district wise, to be carried out in the manner prescribed in **Annex E-12**, for ascertaining concerns of local affected persons
  - (ii) Obtain responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity
2. The public hearing at, or in close proximity to, the site(s) in all cases shall be conducted by the State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC) concerned in the specified manner and forward the proceedings to the regulatory authority concerned within 45 (forty five) of a request to the effect from the applicant.
3. In case the State Pollution Control Board or the Union territory Pollution Control Committee concerned does not undertake and complete the public hearing within the specified period, and/or does not convey the proceedings of the public hearing within the prescribed period directly to the regulatory authority concerned as above, the regulatory authority shall engage another public agency or authority which is not subordinate to the regulatory authority, to complete the process within a further period of forty five days.
4. If the public agency or authority nominated under the sub-paragraph (iii) above reports to the regulatory authority concerned that owing to the local situation, it is not possible to conduct the public hearing in a manner which will enable the views of the concerned local persons to be freely expressed, it shall report the facts in detail to the concerned regulatory authority, which may, after due consideration of the report and other reliable information that it may have, decide that the public consultation in the case need not include the public hearing.
5. For obtaining responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity, the concerned regulatory authority and the State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC) shall invite responses from such concerned persons by placing on their website the summary EIA report prepared in the format given in Annex IIIA<sup>1</sup> by the applicant along with a copy of the application in the prescribed form, within seven days of the receipt of a written request for arranging the public hearing. Confidential information including non-disclosable or legally privileged information involving Intellectual Property Right, source specified in the application shall not be placed on the web site. The regulatory authority concerned may also use other appropriate media for ensuring wide publicity about the project or activity. The regulatory authority shall, however, make available on a written request from any concerned person the Draft EIA report for inspection at a notified place during normal office hours till the date of the public hearing. All the responses received as part of this public consultation process shall be forwarded to the applicant through the quickest available means.
6. After completion of the public consultation, the applicant shall address all the material environmental concerns expressed during this process, and make appropriate changes in the draft EIA and EMP. The final EIA report, so prepared, shall be submitted by the applicant to the concerned regulatory authority for appraisal. The applicant may alternatively submit a

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<sup>1</sup> Next section

supplementary report to draft EIA and EMP addressing all the concerns expressed during the public consultation.

## **ANNEX E-12: PUBLIC CONSULTATION AND INFORMATION DISCLOSURE MECHANISM AS PER MoEF'S EIA NOTIFICATION, 2006**

1.0 The Public Hearing shall be arranged in a systematic, time bound and transparent manner ensuring widest possible public participation at the project site(s) or in its close proximity District -wise, by the concerned State Pollution Control Board (SPCB) or the Union Territory Pollution Control Committee (UTPCC).

2.0 The Process.

- 2.1 The Applicant shall make a request through a simple letter to the Member Secretary of the SPCB or Union Territory Pollution Control Committee, in whose jurisdiction the project is located, to arrange the public hearing within the prescribed statutory period. In case the project site is extending beyond a State or Union Territory, the public hearing is mandated in each State or Union Territory in which the project is sited and the Applicant shall make separate requests to each concerned SPCB or UTPCC for holding the public hearing as per this procedure.
- 2.2 The Applicant shall enclose with the letter of request, at least 10 hard copies and an equivalent number of soft (electronic) copies of the draft EIA Report with the generic structure given in Annex III<sup>1</sup> including the Summary Environment Impact Assessment report in English and in the local language, prepared strictly in accordance with the Terms of Reference communicated after Scoping. Simultaneously the applicant shall arrange to forward copies, one hard and one soft, of the above draft EIA Report along with the Summary EIA report to the Ministry of Environment and Forests and to the following authorities or offices, within whose jurisdiction the project will be located:
- (i) District Magistrate/s
  - (ii) Zila Parishad or Municipal Corporation
  - (iii) District Industries Office
  - (iv) Concerned Regional Office of the Ministry of Environment and Forests
- 2.3 On receiving the draft Environmental Impact Assessment report, the abovementioned authorities except the MoEF, shall arrange to widely publicize it within their respective jurisdictions requesting the interested persons to send their comments to the concerned regulatory authorities. They shall also make available the draft EIA Report for inspection electronically or otherwise to the public during normal office hours till the Public Hearing is over. The Ministry of Environment and Forests shall promptly display the Summary of the draft Environmental Impact Assessment report on its website, and also make the full draft EIA available for reference at a notified place during normal office hours in the Ministry at Delhi.
- 2.4 The SPCB or UTPCC concerned shall also make similar arrangements for giving publicity about the project within the State/Union Territory and make available the Summary of the draft Environmental Impact Assessment report for inspection in select offices or public libraries or panchayats etc. They shall also additionally make available a copy of the draft Environmental Impact Assessment report to the above five authorities/offices viz, Ministry of Environment and Forests, District Magistrate etc.

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<sup>1</sup> i.e. Generic Structure of the Environmental Impact Assessment Document

### 3.0 Notice of Public Hearing

- 3.1 The Member-Secretary of the concerned SPCB or UTPCC shall finalize the date, time and exact venue for the conduct of public hearing within 7(seven) days of the date of receipt of the draft Environmental Impact Assessment report from the project proponent, and advertise the same in one major National Daily and one Regional vernacular Daily. A minimum notice period of 30(thirty) days shall be provided to the public for furnishing their Responses.
- 3.2 The advertisement shall also inform the public about the places or offices where the public could access the draft Environmental Impact Assessment report and the Summary Environmental Impact Assessment report before the public hearing.
- 3.3 No postponement of the date, time, venue of the public hearing shall be undertaken, unless some untoward emergency situation occurs and only on the recommendation of the concerned District Magistrate the postponement shall be notified to the public through the same National and Regional vernacular dailies and also prominently displayed at all the identified offices by the concerned SPCB or Union Territory Pollution Control Committee.
- 3.4 In the above exceptional circumstances fresh date, time and venue for the public consultation shall be decided by the Member –Secretary of the concerned SPCB or UTPCC only in consultation with the District Magistrate and notified afresh as per procedure under 3.1 above.

### 4.0 The Panel

- 4.1 The District Magistrate or his or her representative not below the rank of an Additional District Magistrate assisted by a representative of SPCB or UTPCC, shall supervise and preside over the entire public hearing process.

### 5.0 Videography

- 5.1 The SPCB or UTPCC shall arrange to video film the entire proceedings. A copy of the videotape or a CD shall be enclosed with the public hearing proceedings while forwarding it to the Regulatory Authority concerned.

### 6.0 Proceedings

- 6.1 The attendance of all those who are present at the venue shall be noted and annexed with the final proceedings.
- 6.2 There shall be no quorum required for attendance for starting the proceedings.
- 6.3 A representative of the applicant shall initiate the proceedings with a presentation on the project and the Summary EIA report.
- 6.4 Every person present at the venue shall be granted the opportunity to seek information or clarifications on the project from the Applicant. The summary of the public hearing proceedings accurately reflecting all the views and concerns expressed shall be recorded by the representative of the SPCB or UTPCC and read over to the audience at the end of the proceedings explaining the contents in the vernacular language and the agreed minutes shall be signed by the District Magistrate or his or her representative on the same day and forwarded to the SPCB/UTPCC concerned.
- 6.5 A Statement of the issues raised by the public and the comments of the Applicant



shall also be prepared in the local language and in English and annexed to the proceedings.

- 6.6 The proceedings of the public hearing shall be conspicuously displayed at the office of the Panchyats within whose jurisdiction the project is located, office of the concerned Zila Parishad, District Magistrate, and the SPCB or UTPCC. The SPCB or UTPCC shall also display the proceedings on its website for general information. Comments, if any, on the proceedings which may be sent directly to the concerned regulatory authorities and the Applicant concerned.<sup>2</sup>

## 7.0 Time Period for Completion of Public Hearing

- 7.1 The public hearing shall be completed within a period of 45 (forty five) days from date of receipt of the request letter from the Applicant. Therefore the SPCB or UTPCC concerned shall send the public hearing proceedings to the concerned regulatory authority within 8(eight) days of the completion of the public hearing. The applicant may also directly forward a copy of the approved public hearing proceedings to the regulatory authority concerned along with the final Environmental Impact Assessment report or supplementary report to the draft EIA report prepared after the public hearing and public consultations.
- 7.2 If the SPCB or UTPCC fails to hold the public hearing within the stipulated 45 (forty five) days, the Central Government in Ministry of Environment and Forests for Category 'A' project or activity and the State Government or Union Territory Administration for Category 'B' project or activity at the request of the SEIAA, shall engage any other agency or authority to complete the process, as per procedure laid down in this notification.

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<sup>2</sup> Note that the *draft* EIA report will be available to the locally affected persons prior to the Public Hearing. Thus, citizens will not get to see the *final* EIA report (on the basis of which the decision on the project will be made)

## ANNEX E-13: GUIDANCE ON INCORPORATING THE EMP INTO CONTRACT DOCUMENTS (IN THE CASE OF HIGHWAY PROJECTS)<sup>1</sup>

1. **Environmental Requirements in the Pre-bid Document.** The project implementing agency, i.e. the State Public Works Departments (PWDs) or the National Highway Authority of India (NHAI) issue the pre-bid documents to shortlist a few (usually six) contractors, based on their expression of interest and capability. While details on environmental requirements are not really needed at the pre-bid stage, it is useful to mention that the contractor's environmental management capability or experience is expected to be good.

2. **Incorporating EMP in the Bid Document.** The project implementing agency issues the bid document to the pre-qualified contractors. There are two types of bid documents – for International Competitive Bids (ICBs) and National Competitive Bids (NCBs). In MDB-financed projects, these documents are prepared based on templates provided by the MDB. The ICB documents are based on the FIDIC (acronym for International Institute of Consulting Engineers) guidelines, while the NCB is closer to national contracting procedures, i.e. the Central PWD contract documents in India. The bid documents contain separate volumes for instance, a typical ICB document contains (i) general conditions of contract which is based on the FIDIC (ii) technical specifications, which is based on the Ministry of Road Transport and Highways (MoRTH) specifications in India for road and bridge works (iii) Bill of Quantities (iv) drawings. The parts of the EMP must be included in the relevant locations of the bid documents in the following manner.

- (i) **Mitigation/enhancement measures and monitoring requirements tables.** The cross-reference to these tables should be included in the “Conditions of particular application” or COPA, which is part of the General Conditions of Contract (e.g. Section IV, Item 19.1 of the ICB). As a standard practice, there is overall reference to laws that have to be followed in this section / item. The relevant laws need to be mentioned here. In addition, the adherence to the mitigation / enhancement measures and monitoring requirement tables should be included. The two tables will have to be added as annexes or the EMP (without cost) as a whole must be attached. Either the annexes or the appropriate section in the EMP should be cross-referenced in the description of this item.
- (ii) **Modifications/additions to the technical specifications.** Due to the mitigation/enhancement measures included in the EMP, there may be (i) additions/alterations required to the MoRTH specifications and (ii) some new specifications. These are to be referred to in the section “Supplementary Specifications” in the Technical Specifications Volume of the bid documents. Generally, the MoRTH specifications are taken as followed and are not repeated in the bid documents. The section on “Supplementary Specifications” should also include additional technical specifications related to the EMP or should provide a cross-reference to the specific section of the EMP.
- (iii) **Cost Table.** All the items in the EMP cost table relevant to the contractor have to be referred to in the Bill of Quantities table, which is a separate volume of the bid documents. It is to be noted that this table includes various tasks to be done by

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<sup>1</sup> Adapted from **Management of Environmental and Social Issues in Highway Projects in India** by the World Bank. The environmental requirements for a project implementing agency are included in the EMP. Of these requirements, those related to the construction phase and the contractor have to be necessarily covered in the bid and contract documents

the contractor under different categories. Against each task the contractor will have to indicate a unit rate while completing the bid documents.

- (iv) **Drawings:** Due to the mitigation / enhancement measures included in the EMP, (a) there may be changes required to the drawings (b) new drawings. All of these are to be reflected in the bid documents under a separate Drawings Volume. If the drawings are included in the EMP, then a cross-reference should be provided in the Drawings Volume.

3. **Developing the EMP to suit the Bid/Contract Documents.** As one of the intentions is to integrate the EMP requirements in to the bid document / contract agreement, the EMP should be developed keeping the following in mind.

- (i) **Mitigation/enhancement measures table–description.** In this table, the text describing each measure should not include / repeat what is already covered under the MoRTH technical specification which is being cross-referenced. The text should be short and clear. The description must focus on the “what” and “where” of the mitigation/enhancement measures, as the “how” has already been covered under the specification.
- (ii) **Monitoring requirements table.** There are certain monitoring requirements for the contractor. While developing this table, those that apply to the contractor must be clearly separated.
- (iii) **Technical specifications.** The modifications to the MoRTH specifications and additional specifications must be separately listed. These should be included as Annexes in the EMP. They should be adequately detailed to avoid problems (including those of interpretation) at the site.
- (iv) **Drawings.** The modifications to the drawings as well as additional drawings must be included as annexes in the EMP. It is important to note that all such drawings should be “execution drawings” detailed as per the requirement of the particular item so as to execute at the site with adequate quality control and workmanship. (Also, it is important to note that the quality of the Bill of Quantities or cost estimate and technical specifications part of the contract document depends on the degree of detailing in the drawings.
- (v) **Cost table.** The items pertaining to the contractor should be clearly separated from those that are to be implemented by the project implementing agency, supervision consultant or any other agency. The contractors’ cost table should also not be attached to the bid / contract documents
- (vi) **Timing for finalising the EMP.** It is best to finalise the EMP before finalising the bid documents. This is required to fully reflect the sections of the EMP relevant to the contractor in the bid documents and to ensure full integration

4. **Other notes.**

- (i) **Variation Orders.** Once the completed bids have been received from prospective contractors, the project implementing agency takes a decision based on the costs and technical merit of the bids. Following the decision, the project implementing agency and the contractor sign the completed bid documents. It becomes the contract agreement thereafter. If issues have been missed in the bid documents it cannot be amended at the time of signing the contract agreement, unless there is a really strong justification for the same. If there is an EMP cost item that is not reflected in the Bill of Quantities of the signed contract agreement, the supervision consultant may issue a variation order. The

contractor will quote a rate and the task gets done. The issue of variation orders is a standard practice and is generally used. However, the intent of good contracting practices is to minimise variation orders.

## **ANNEX E-14: CHECKLISTS OF DOCUMENTS THAT SHOULD BE SUBMITTED BY LEAD BANKS/SUBBORROWERS TO IIFCL FOR LOAN APPLICATION**

### **I. Key Approvals/Consents**

- (i) Letter of Application made, Status and Approval letter (attached with applicable conditions) from the Ministry of Environment and Forests (MOEF)/State Department of Environment for Environmental Clearance.
- (ii) Letter of Application made, Status and Approval letter (attached with applicable conditions) from the Ministry of Environment and Forests (MOEF)/State Department of Environment/State Coastal Regulation Zone Authority for Clearance on Coastal Regulation Zone (CRZ).
- (iii) Letter of Application made, Status and Approval letter (attached with applicable conditions) from the Ministry of Environment and Forests (MOEF)/State Department of Forests for Forest Clearance.
- (iv) Letter of Application made. Status and Approval letter (attached with applicable conditions) for Consent to Establish (CFE) and Consent to Operate from concerned State/UT Pollution Control Board(s).

### **II. Key Documentation**

- (i) EIA report with Executive Summary, Environmental Management Plan, Disaster Management Plan, Resettlement Action Plan with statement of budgets that have been estimated and committed.
- (ii) Record of Public Hearing (actual conduct as well as written comments received) with a statement that summarizes suggestions incorporated in the Environmental Management Plan (EMP) as a result of public hearing.
- (iii) For projects already under implementation, Status on implementation of EMP, budget spent out of allocated, institutional arrangements for monitoring and review, records on environmental monitoring.
- (iv) Enviro-legal statement on the project that states whether the project is under any legal proceedings e.g. by State/Central Government or suffering from Public Interest Litigation (PIL).

**ANNEX E-15: AUDIT RECORDING SHEET  
IMPLEMENTATION OF ENVIRONMENTAL SAFEGUARD SYSTEMS  
(The form will continue for the project life)**

<b>Project Name</b>	
Contact Person ESMU/IIFCL Lead Bank/Subborrower	
Milestones Audited in Previous Years	
Products Placed for Audit in the Current Year	
<b>1. MEMO TO BOARD</b>	
<input type="checkbox"/> What are the significant environmental issues identified in Memo to Board?	
<input type="checkbox"/> Are all significant environmental issues covered and well flagged in the EMP? <input type="checkbox"/> Was Public Hearing if applicable conducted as per EIA Notification of MoEF? <input type="checkbox"/> Have outcomes of Public Hearing appropriately reflected in the EMP? <input type="checkbox"/> Is the EMP adequately costed and reflected so in the financial appraisal?	
<input type="checkbox"/> Does the Memo adequately flag mandatory requirements for environmental and social compliance? Are all compliance conditions fully met prior sending Memo to the Board?	
<b>2. ENGAGEMENT DOCUMENTS WITH LEAD BANK/SUBBORROWER</b>	
<input type="checkbox"/> Do the legal documents reflect EMP in an implementable and verifiable form?  <input type="checkbox"/> Are the EMP requirements adequately covered in <ul style="list-style-type: none"> <li>– Concession Document</li> <li>– Construction Agreement</li> <li>– O&amp;M Agreement</li> <li>– Subloan Agreement</li> </ul>	
<input type="checkbox"/> Is IIFCL's ESF included as mandatory in legal documents?	
<b>3. EMP IMPLEMENTATION</b>	
<input type="checkbox"/> Has the Lead Bank/Subborrower implemented all the EMP measures covered in the contracts?	
<input type="checkbox"/> Has the agency for environmental monitoring been appointed?	
<input type="checkbox"/> Observations on environmental monitoring, interpretation and reporting	
<input type="checkbox"/> Is the Lead Bank/Subborrower submitting reports to IIFCL and other lenders on a regular	

<b>Project Name</b>	
basis?	
<input type="checkbox"/> Observations on the EMP monitoring mechanism	
<input type="checkbox"/> Are there any new environmental issues identified after technical close and/or during project implementation	
<input type="checkbox"/> Has the Lead Bank/Subborrower taken note of the new issues and implemented appropriate mitigation measures	
Reviewed by :	

## ANNEX E-16: ILLUSTRATIVE FORMATS FOR MONITORING

### Format A: Template for Summarizing Mitigation Measures

Project Stage	Project Activity	Potential Environmental Impacts	Proposed Mitigation Measures	Institutional Responsibilities	Cost Estimates
Pre-Construction Phase					
Construction Phase					
Operation and Maintenance Phase					

### Format B: Template for Summarizing Monitoring Requirements

	Mitigation Measure	Parameters to be Monitored	Location	Measurements	Frequency	Responsibilities	Cost
Pre-Construction Phase							
Construction Phase							
Operation and Maintenance Phase							

### Format C: Template for Summarizing Institutional Strengthening and Training

I. Strengthening Activity	Position (Responsibilities)	Strengthening Program		Schedule	Cost Estimate
1. Mitigation					
2. Monitoring					
II. Training Activity	Participants	Course	Content	Schedule	Cost Estimate
1. EMP Implementation Re-design/Conflict Resolution					
2. Environmental Processes, Methods and Equipment					
3. Environmental Policies and Programs					



**Format D: Template for Scheduling and Reporting**

Activity	YEAR 1				YEAR 2				YEAR 3				...
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1. Mitigation Measures -----													
2. Monitoring -----													
3. Institutional Strengthening -----													
4. Training -----													



## **ANNEX E-18: OUTLINE TERMS OF REFERENCE FOR PROJECT MANAGEMENT CONSULTANT-I**

1. PMC-I will provide core support to ESMU of IIFCL in operation of the EMS.
2. PMC-I will be identified through competitive bidding. PMC-I will need to have at least 10 years of experience as an organization in Environmental and Social Assessment (ESA), especially on obtaining Environmental Clearance (EC), should have worked on ESA of projects that have received the development partners' funding and has resident team that has core ESA competencies.
3. PMC-I will provide one full time environmental and one full time social assessment specialist to IIFCL. In addition, PMC-I will support ESMU/IIFCL by providing Field ESA specialists and ESA Training specialists on needs basis.
4. The full time as well as Field Assessment Environmental Specialist will be masters in Environmental Science/Engineering/Planning with at least 5 years of experience. Previous experience in preparing EIAs and obtaining EC at Centre and State levels for infrastructure projects will be essential.
5. The full time as well as Field Assessment Social specialists will have a Masters in Social Development and allied areas with at least 5 years of experience in the preparation of Resettlement Action Plans (RAP) and Indigenous Peoples Development Plans (IPDP).
6. The Training Specialists will have at least a Masters qualification in ESA with 10 years of experience in practicing ESA with at least 3 years of experience on conducting training programmes in ESA.
7. The full time two specialists will work at IIFCL and report to Head, ESMU. Through the two full time specialists, following services will be rendered by PMC-I to ESMU/IIFCL.
  - **Task 1:** Conduct compliance review – The specialists will review project documentation received from Lead Bank/Subborrower; check applicability of all applicable national, state and local environmental and social policies and regulatory requirements; development partners' requirements – especially on the process to be followed and identify gaps if any for action at the end of Lead Bank/Subborrower.
  - **Task 2:** Check adequacy and effectiveness of EMPs/RAPs/IPDPs – The specialists will review the EMPs/RAPs/IPDPs and check their adequacy and effectiveness in mitigating adverse environmental and social issues, appropriateness of the budget and robustness of the institutional mechanism for implementation and monitoring. Make suggestions if there are deficiencies to the Lead Bank/Subborrower.
  - **Task 3:** Develop conditions as loan covenants that stipulate requirements or outcomes of EMP/RAP/IPDPs.
  - **Task 4:** Prepare Memo for Board on the basis of Tasks 1, 2, and 3.

- **Task 5:** Prepare sector specific checklists, guidelines, monitoring and reporting formats to strengthen EMS. These guidelines will make use of materials developed by GOI and MDBs (**Appendices 9,10, 11, 12, and 14** illustrate such guidance materials of relevance to Lead Banks/Subborrowers. PMC-I will build a compendium to this effect and provide to the Lead Banks/Subborrowers).
- **Task 6:** Coordinate with Field Environmental and Social Specialists for assessment, monitoring and review as required. These Field Specialists will be provided by PMC-I through its pool of resources. The full time ESA specialists will recommend to the Head, ESMU need to deploy Field Environmental and Social Specialists based on information requirements, interest on independent checking, project sensitivity, time pressures etc.
- **Task 7:** Coordinate with Lead Banks/Subborrowers to provide support to independent environmental and social auditors (PMC-II) for preparing IIFCL's Annual Environmental and Social report. The specialists will work closely with the Lead Banks/Subborrowers as well as the auditors to ensure that required information is compiled and provided in a timely manner.
- **Task 8:** Prepare progress and performance reports for the various development partners. **Annex E-18** provides a guideline.
- **Task 9:** Coordinate with the Training Specialists to provide guidance to the Lead Banks/Subborrowers on project processing under EMS/Social Management System. The specialists will identify training needs and work closely with Training Specialists provided by PMC-I to conduct training programmes at Lead Bank/Subborrower on a regular basis, conduct evaluation of the training programmes and prepare reports.
- **Task 10:** Update EMS/Social Management System based on operational experience.

8. Fees to PMC-I will be paid for the provision of full time staff (two ESA specialists) and towards need based usage of other staff (Field and Training Specialists) on agreed daily rates. ESMU/IIFCL will provide the office space, office support such as computers, stationary and communication facilities. All field travel for work will be reimbursed following the norms as applicable at IIFCL.

9. In case of any dissatisfaction on the services and qualifications of the full time or part time staff, PMC-I will be obligated to do requisite replacement.

## ANNEX E-19: OUTLINE TERMS OF REFERENCE FOR PROJECT MANAGEMENT CONSULTANT-II

1. PMC-II will be responsible to conduct annual environmental and social audit of IIFCL's EMS.
2. PMC-II will be identified through competitive bidding. PMC-II will need to have at least 10 years of experience as an organization in Environmental and Social Assessment (ESA), especially on obtaining Environmental Clearance (EC), should have worked on ESA of projects that have received development partners' funding and has resident team that has core ESA competencies.
3. PMC-II will provide one senior environmental and one senior social assessment specialist for conducting annual environmental and social audit.
4. The Senior Environmental Specialist will be masters in Environmental Science/Engineering/Planning with at least 10 years of experience. Previous experience in reviewing/auditing EIAs and obtaining EC at Centre and State levels for infrastructure projects will be essential.
5. The Senior Social specialists will have a Masters in Social Development and allied areas with at least 10 years of experience in the preparation/assessment of Resettlement Action Plans (RAP) and Indigenous Peoples Development Plans (IPDP).
6. These two specialists will work closely with specialists provided by PMC-I during the planning, conduct and closure of the annual environmental and social audit.
7. The audit will check whether the procedures as stipulated in the EMS have been followed, whether the outcomes (e.g. reports) have been satisfactory, whether the decisions taken were appropriate and whether the actions recommended were taken in full and on timely basis.
8. The tasks to be completed shall be as follows.
  - **Task 1:** Verify whether the procedures as per the EMS have been followed at ESMU/IIFCL for all sub-projects that have been appraised and financed.
  - **Task 2:** Design audit recording sheet for sub-projects in consultation with ESMU/IIFCL that would meet IIFCL's as well as development partners' requirements. See **Annex 14** as a sample. Provide the format to ESMU/IIFCL to compile data on all sub-projects that are appraised and financed.
  - **Task 3:** Analyze data compiled by ESMU/IIFCL following the audit recording sheet. Request additional information if needed to complete assessment
  - **Task 4:** Develop audit programme by identifying projects that will be assessed through data alone and through field visits as per the approach outlined in **Figure 6** of EMS document.

- **Task 4:** Conduct field visits as per the agreed audit programme. Complete audit recording sheets by adding field observations
- **Task 5:** Prepare report for ESMU/IIFCL with suitable appendices, summarizing observations, corrective actions needed as relevant for each sub-project that is audited, make suggestions for improvements at ESMU/IIFCL as well as at Lead Banks/Subborrowers and recommend updation in the EMS where appropriate

9. Fees to PMC-II will be paid on lump sum basis for providing the above service, ESMU/IIFCL will provide the data, do required coordination with Lead Banks/Subborrowers, provide office space, office support such as computers, stationary and communication facilities. All field travel for work will be reimbursed following the norms as applicable at IIFCL.

**ANNEX E-20: OUTLINE TRAINING PROGRAMME  
FOR LEAD BANKS/SUBBORROWERS ON IIFCL'S EMS**

Day 1:

Morning session

**Environmental and Social Issues in Infrastructure Projects**

(two presentations)

Discussions

Afternoon session

**Overview of Environmental and Social Policies and Regulatory Framework in India**

(two presentations)

Discussions

Day 2:

Morning session

**IIFCL's Environmental and Social Management System (ESMS) – Policy, Procedures and Benefits**

(two presentations)

Discussions

Afternoon session

**Case studies on Sub-projects that have followed IIFCL's ESMS**

Discussions

### III. Environmental Management System (EMS)

#### A. Context

##### 1. Objectives of the SSF

66. A key objective of the SSF is to provide guidance to lead banks and subborrowers in preparing projects for appraisal at IIFCL and in conducting subsequent monitoring, reporting, and in undertaking corrective actions. Lead Bank means an FI that is funding the infrastructure project and is designated as such by the inter-institutional group or consortium of FIs, provided the risk exposure of IIFCL is less than that of the lead bank in a project.

67. The Facility will make investments in companies with significant operations in Indian infrastructure. In some circumstances, such development or expansion may cause IR impacts on people. With these and other circumstances, the lives and livelihoods of tribal people may be affected as well. In such cases, relevant GOI legislation and policies would apply as would either or both of the lenders' Involuntary Resettlement (IR) and Indigenous Peoples (IP) policies (as reflected in this framework).

68. Other key objectives for this SSF are to ensure that project-affected people benefit from the proposed subprojects to the extent possible and that they are consulted about the subproject throughout the life of the subproject.

69. The IIFCL will ensure that IR impacts of any subproject submitted for financing under the facility are dealt with in accordance with the following.

- (i) Applicable GOI and state laws and regulations governing land acquisition, compensation, relocation, and resettlement (see section 6B below).
- (ii) The lenders' policies on IR.

70. Objectives for managing IR impacts and risks are

- (i) To avoid IR, wherever feasible.
- (ii) To minimize resettlement, where population displacement is unavoidable.
- (iii) To ensure that affected people receive assistance so that they will be at least as well off as they would have been in the absence of the project.

71. The term 'affected person' includes any people, households, firms, or private institutions who, on account of changes that result from the project, will have their (i) standard of living adversely affected; (ii) right, title, or interest in any house, land (including residential, commercial, agricultural, forest, and/or grazing land), water resources, or any other moveable or fixed assets acquired, possessed, restricted, or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence, or habitat adversely affected, with or without displacement.

72. Resettlement plans will pay particular attention to addressing the needs of the poorest affected people and vulnerable groups who are at high risk of impoverishment and further marginalization.

73. IIFCL will ensure that impacts of any subproject on indigenous (tribal) people will be dealt with in accordance with the following.



- (i) Applicable GOI and state laws and regulations governing tribal development
- (ii) The lenders' policies on indigenous peoples

74. Objectives for managing project impacts on tribal peoples are

- (i) To achieve the greatest possible reduction of poverty and vulnerability among the affected indigenous (tribal) peoples.
- (ii) To minimize negative impacts, if they are unavoidable.
- (iii) To ensure transparency and accountability of any mechanism applied as part of project intervention.
- (iv) To deliver culturally appropriate programs and benefits.
- (v) To ensure meaningful consultations regarding the scope and delivery of compensatory mechanisms and benefits

## **2. The Social Policy of IIFCL**

75. The SSF is guided by IIFCL's Environmental and Social Policy as below. See also Annex S-1 for a fuller description of the policy and legal framework.

- (i) IIFCL gives due importance to Environmental and Social (E&S) considerations in appraising and financing infrastructure projects to minimize adverse impacts and risks to the environment and people that may be affected.
- (ii) IIFCL is committed to comply with all relevant E&S policy and legislative requirements and laws of the lands with which it engages and remain responsive to the E&S requirements of its development partners/lenders.
- (iii) This policy statement emphasizes IIFCL's sensitivity and concern to environmental and social issues, commitment towards compliance, and responsiveness towards the E&S requirements of its development partners.

## **B. Outline of Social Safeguard Activities**

### **1. Two Pathways for Social Safeguards**

76. Two pathways for social safeguards due diligence are established. The first applies to all projects not yet committed to by IIFCL at the time of functioning of the ESMU in IIFCL (within 90 days of its establishment). The procedural steps for such projects are set out below.

- (i) Screening of proposed subprojects for resettlement effects and impacts on tribal peoples.
- (ii) Preparation of resettlement plan (short or full), if necessary, and submission as part of the Project Information Memorandum (PIM).
- (iii) Preparation of Tribal Development Plan (short or full), if necessary, and submission as part of the Project Information Memorandum (PIM).
- (iv) Appraisal of Resettlement Plan (RP) and/or Tribal Development Plan (TDP) revisions, if necessary.
- (v) Setting of loan conditionality to include social (resettlement and tribal peoples) safeguard covenants.
- (vi) Revision of RP and/or TDP on completion of detailed subproject design.
- (vii) Implementation of RP and/or TDP.
- (viii) Monitoring of RP and TDP.

- (ix) Subproject closure shall be linked to satisfactory completion of social activities undertaken for a RP and/or TDP.

77. The second pathway applies to all subprojects already sanctioned by the IIFCL board at the time of the functioning of the ESMU (within 90 days of its establishment). For such projects, the process would be as follows.

- (i) Categorize the effects of the subprojects as to whether they warrant the equivalent of a full or short RP and/or a full or short TDP. See Annexes S-2 and S-3.
- (ii) Check for social compliance based on the above categorization(s). See Annexes S-4 to S-9 for applicable laws and regulations.
- (iii) Identify gaps, if any, in social compliance. If there are no gaps, then review all relevant RP and/or TDP reports. For full Resettlement and/or TDPs, include field visit of social safeguards specialist.
- (iv) If there are gaps on social compliance, then direct lead banks/subborrowers time-targeted actions to attain compliance. Hold disbursements 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 disbursements.
- (vi) For compliant projects, if review of plan(s) shows their adequacy and appropriate reflection in the project costs, then update legal documents to reflect applicability of IIFCL's commitment to the RP and/or TDP as binding during the period of engagement. Take appropriate approval of the board.
- (vii) If review of the RP and/or TDP shows their inadequacy and/or inappropriate reflection in project costs, then update PIM as well as redo financial appraisal to reflect on strengthened/improved social safeguard plans. Re-assess commercial viability of the project. Obtain board approval for the revisions. Update legal documents that reflect applicability of IIFCL's social safeguard plans as binding during the period of engagement.
- (viii) Revise RP and/or TDP on completion of detailed subproject design, as necessary.
- (ix) Implement RP and/or TDP.
- (x) Monitor RP and/or TDP.
- (xi) Link subproject closure to satisfactory completion of social activities undertaken for an RP and/or TDP

## **2. Social Safeguards Screening**

78. When a subborrower submits a subproject for financing to the lead bank for financing and if the IIFCL is a contributor to that financing, IIFCL will review the feasibility study reports which include social and environmental safeguard studies. The IIFCL will (through its own ESMU, or an agent; see Section 9 below) and in consultation with the subborrower, decide whether any activities of the prospective subproject may cause IR and/or have significant impacts on tribal peoples. A checklist for assessing potential IR impacts forms Annex S-2, while Annex S-3 includes a similar checklist for effects on tribal peoples. In the event that such screening by IIFCL indicates that either IR or tribal peoples effects appear likely, IIFCL will require, through the lead bank from the subborrower adequate safeguard planning instruments such as an RP and/or tribal people development plan prepared in accordance with this SSF.

79. The IIFCL, based on reports received from the subborrower and the analysis of its ESMU and in consultation with the lenders, will assess the magnitude of IR impacts and determine whether a short or full RP is required for the subproject. A full RP will be required where resettlement is 'significant.' IR is 'significant' when 200 or more people will experience major impacts, which are defined as being physically displaced from housing or losing 10% or more of their productive assets (income generating).

80. Similarly, as regards impacts on tribal peoples, a determination will be made as to the magnitude of the significance of impacts and whether a short or full TDP is required. The impacts of subprojects on tribal peoples will be considered significant, if they positively or negatively (i) affect their customary rights of use and access to land and natural resources; (ii) change their socioeconomic status; (iii) affect their cultural and communal integrity; (iv) affect their health, education, livelihood, and social security status; or (v) alter or undermine the recognition of indigenous knowledge.

### **3. PIM guidelines for the preparation of Social Safeguards Planning Documents**

#### **a. Procedure for Prospective Investments with IR and/or Significant Effects on Tribal Peoples**

81. The subborrower, in consultation with the ESMU, will prepare an RP and/or a TDP as described below and include such plans as part of the PIM to be submitted to IIFCL for review.

#### **b. Plan Principles**

82. The subborrower will prepare an RP according to agreed upon principles as embodied for IR in

- (i) The Draft National Policy on Resettlement and Rehabilitation (NPRR 2006)
- (ii) The Land Acquisition Act of 1894 and as amended
- (iii) Relevant state laws and regulations
- (iv) The lenders' IR policies

83. The subborrower will prepare a tribal peoples development plan according to agreed upon principles as embodied for tribal peoples development in

- (i) GOI's forestry, minerals, and mines legislations and regulations
- (ii) GOI's common property rights and legislation
- (iii) Relevant state laws and regulations
- (iv) The draft "National Tribal Policy: A Policy for the Scheduled Tribes of India," proposed by the GOI Ministry of Tribal Affairs in 2006
- (v) The lenders' IP policies

84. In the case of varying standards among the various applicable policies (GOI, state, agency, external funding facilities), the highest provisions available will be used to mitigate subproject impacts.

### **c. Resettlement Plans**

85. The subborrower will prepare either a short or a full RP, depending on the magnitude and complexity of resettlement as determined by the social safeguards screening process described above. The scope of short and full resettlement plans is outlined in Annexes S-4 and S-5.

86. In the formulation of an RP for a subproject, the following issues should also be addressed adequately.

- (i) The subproject should explore alternatives to avoid IR and if avoidance is not feasible to minimize land acquisition and involuntary resettlement.
- (ii) The policy application should not be too restrictive. Significance of resettlement impacts will guide planning.
- (iii) The plan should include all project-affected people irrespective of whether they are property owners or not.
- (iv) The cut-off date for eligibility should be the date of first notification for land acquisition.
- (v) Compensation for loss of assets must be at replacement value (see Annex S-6).
- (vi) A comprehensive entitlement matrix is formulated to describe entitlements of each category of APs (see Annex S-7).
- (vii) Full compensation must be paid prior to taking over the land and other assets.
- (viii) The plan must clearly focus on income/livelihoods improvement in the post-resettlement period.
- (ix) Information should be disseminated in a timely fashion, consultations held with all affected persons, and plan versions and monitoring reports disclosed at regular intervals in local languages.
- (x) Independent monitoring system should be incorporated in the plan.
- (xi) Impact assessment must be clearly focused.
- (xii) Detailed timetable for RP implementation
- (xiii) Detailed budget and sources of budget for compensation, relocation, and rehabilitation of APs.

87. Key elements of an RP include (i) loan or investment description, with the likely scope, extent, and magnitude of the resettlement effects; (ii) screening procedures for pipeline investments or components; (iii) resettlement policy principles and eligibility criteria that are consistent with the policy and cover all investments, subprojects, and components under the loan; (iv) resettlement entitlements; (v) resettlement design criteria; and (vi) administrative, resourcing, and financing arrangements for preparation, approval, implementation, monitoring, and evaluation of full or short RPs (see Annexes S-4 and S-5, respectively, for detailed outlines of plans, and Annex S-7 for the format of a resettlement entitlements matrix).

### **d. Tribal Development Plans (TDPs)**

88. The subborrower will prepare either a short or a full TDP depending on the magnitude and complexity of project impacts as determined by the social safeguards screening process described above.

89. An acceptable TDP addresses the (i) aspirations, needs, and preferred options of the affected tribal peoples; (ii) local social organization, cultural beliefs, ancestral territory, and resource use patterns among the affected tribal peoples; (iii) results and framework of a process

of free, prior, and informed consultations; (iv) potential positive and negative impacts on tribal peoples; (v) measures to avoid, mitigate, or compensate for the adverse project effects; (vi) measures to ensure project benefits will accrue to tribal peoples; (vii) an action plan of measures to ensure that tribal people receive social and economic benefits that are culturally appropriate; (viii) accessible procedures for grievance redress; (ix) benchmarks for evaluating the outcomes of the TDP; (x) measures to strengthen social, legal, and technical capabilities of government institutions to address tribal peoples issues; (xi) the possibility of involving local organizations and non-governmental organizations (NGOs) with expertise in tribal peoples issues; and (xii) budget allocation and monitoring.

90. A TDP, as an integral part of the project design, includes provisions for project implementation, monitoring, and evaluation. The TDP is time-bound, with an adequate budget for its implementation.

91. The scope of short and full TDPs is outlined in Annexes S-8 and S-9.

#### **e. Complaints and Grievance Procedures**

92. Both the RP and the IPDP will separately outline procedures to handle grievances. Grievance redress mechanisms for affected people will be established with adequate representation of affected people and genders. The grievances will be redressed at the local level in a consultative manner and with full participation of the affected households, or their representatives, along with project officials and local government representatives. In case the grievances are resolved within 15 days of their filing, the complainants will forward the same to IIFCL. In case the grievances still remain unresolved within 20 days of their filing, or the decision of the subborrower is not acceptable to the household, the aggrieved party may forward their complaints to a court of law. All costs incurred in resolving the complaints will be borne by the subborrower. The IIFCL will document all complaints received.

#### **f. Consultation and Disclosure**

93. Subborrowers will conduct consultations with a broad range of stakeholders during subproject development and implementation. The objectives of such consultations are to (i) engage stakeholders in the selection of RP and/or TDP priorities and program design (i.e. goals, objectives, activities, etc), and (ii) provide stakeholders with opportunities to assess the subproject. Subproject consultations on program design and implementation involve a range of stakeholders including government, NGOs, civil society organizations, and the communities affected. These consultations occur on a formal and informal basis and may involve (i) pre-design consultations to ensure that the program will reflect priorities and/or needs, experiences, and lessons learned of the various stakeholders; and (ii) consultations with target groups/beneficiaries as part of program design and implementation.

94. Wherever an RP is required, affected people will be consulted on compensation and/or resettlement options, including relocation sites, and socioeconomic rehabilitation. Pertinent resettlement information will be disclosed to the affected people at key points in their own language(s), and specific opportunities provided for them to participate in choosing, planning, and implementation options. The disclosure will be in a manner accessible to the affected people where there are differing levels of literacy skills. Grievance redress mechanisms for affected people will be established with adequate representation of affected people and with an adequate multi-gender presence. The RP will be made available to them prior to its implementation in their own language(s) with details on their entitlements.

95. Whenever a TDP is required, tribal peoples will be consulted during the preparation of the plan. They will be informed of project details, project benefits, possible adverse impacts, and the mitigation measures proposed. Their views will be taken into account in finalizing the plan. The TDP will be translated into the tribal language and made available to the affected people before implementation. The disclosure will be in a manner accessible to the affected people where there are differing levels of literacy skills. The tribal institutions and organizations in the affected area will also be involved in implementing the TDP and in resolving any disputes that may arise.

96. Both drafts, RP and TDP, will be made publicly available upon submission to the IIFCL as part of the PIM as will the final versions of the plans prior to their implementation. Plans may be revised after submission as part of the PIM in response to (i) requests for revision during the appraisal process; and/or (ii) significant changes in the subproject during implementation. Such revised plans will also be made available both to the plan-affected people and to the public.

#### **g. Plan Budgets and Financing**

97. The Facility is committed to safeguarding the social effects of the various subprojects upon the lives and livelihoods of affected people. Adequate provision for financing both the RP and the TDP from the subproject's annual budget will be made. The budget includes costs of compensation, relocation and rehabilitation, social preparation, benefits-sharing, and livelihood programs, as well as costs for planning, management, supervision, monitoring, and evaluation, land taxes, land fees, and physical and price contingencies. Similarly, resettlement plans should also reflect the timeframe for resettlement planning and implementation.

#### **h. RP and/or TDP Appraisal Guidelines**

98. The IIFCL (or its agent) will appraise the RP and/or TDP submitted by the subborrowers as part of the PIM against the requirements for plans as stated in Annexes S-4, S-5, S-8, and S-9.

#### **i. Conditionality and Covenants**

99. Loan disbursement shall be contingent on satisfactory compliance with the obligations incurred through adoption of an RP and/or TDP. These arrangements for loan covenants will be reflected in the board note approving subprojects.

100. Also to be covenanted are the remedial procedures to be followed to bring the plan(s) into compliance if monitoring discloses that RP or TDP are not in compliance with the safeguards in the approved framework.

#### **j. Monitoring and Evaluation**

101. Monitoring and evaluation requirements will be defined as part of each RP and/or TDP. 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. See Annex S-10 for sample ToR for an external monitoring and evaluation agency.

102. 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 subborrower to assess the significance of the impacts and identify measures to mitigate any adverse impacts and ensure that benefits accrue to the tribal peoples. IIFCL's ESMU would be informed of and review such measures and their implementation. The external monitor would also certify compliance with the requirements of the RP and/or TDP.

#### **k. Reporting**

103. The ESMU will prepare an annual report to participating development partners summarizing

- (i) Progress reports based on each subborrowers' operations which have IR impacts and/or impacts on tribal people
- (ii) List of pipeline investments with likely IR or tribal peoples impacts, for the forthcoming year

### **C. Capacity and Implementing Arrangements**

#### **1. Environment and Social Safeguards Management Unit (ESMU)**

104. The IIFCL will establish an Environmental and Social Safeguards Management Unit (ESMU). This unit will receive training in (i) screening prospective subprojects for IR and tribal effects; (ii) plan preparation and appraisal; (iii) plan monitoring; and (iii) reporting. The ESMU initially will have consultants to assist it in reviewing project proposals. It could also contract with an external agency to carry out the social safeguard assessment, guidance, appraisal, monitoring, and reporting functions for which IIFCL will be responsible. The ESMU will appoint two persons on its staff to be Safeguards Liaison Officers (resettlement/tribal and environment) who will oversee and coordinate internal reviewing and approvals process. Selection of the external agency will be to the lenders' satisfaction.

105. The ESMU's Social Safeguards Liaison Officer (SSLO) could be either invited on deputation from other organizations or recruited. This person will have a masters or higher degree in social science with at least ten years of experience in conducting/reviewing social assessments and working with resettlement and tribal issues in India. Familiarity with GOI regulations and procedures will be essential and exposure to social safeguards at MDBs will be desirable.

106. The SSLO will deliver the following services.

- (i) Conduct compliance review of each subproject submitted for financing.
- (ii) Check the adequacy and effectiveness of RPs/TDPs.
- (iii) Prepare a memo for the IIFCL board.
- (iv) Develop conditions as loan covenants that stipulate requirements or outcomes of RPs/TDPs.
- (v) Coordinate with subproject social specialists for assessment, monitoring, and review as required.
- (vi) Coordinate with subproject social specialists and subproject external monitors for preparing IIFCL's annual environmental and social report.
- (vii) Prepare sector specific checklists, formats, and guidelines to supplement the SSF. These guidelines will fully make use of materials developed by GOI and MDBs.

- (viii) Interface and provide guidance to the lead banks/subborrowers on project processing under the SSF.
- (ix) Update SSF based on operational experience.

## **2. Capacity Development Plan**

107. Since the effectiveness of IIFCL's application of the IR and tribal peoples safeguards measures depends considerably on the understanding and preparedness of the lead banks/designated lead syndicator, it is important that IIFCL makes effort to sensitize the lead banks/designated lead syndicator on management of social issues, provide guidance, and encourage them to build requisite capacities.

108. IIFCL will offer lead banks/subborrowers short programs (1-2 days duration), at least 2 times a year, to explain IIFCL's obligations, their importance, and benefits.

## **3. IIPFF Roles and Responsibilities: IIFCL and Lead Banks**

109. The IIFCL, through the ESSMU, will be responsible for (see also Figure 1).

- (i) Ensuring that lead banks and subborrowers of potential subprojects for IIFCL financing are aware as early as possible of the requirements of this SSF to facilitate adherence to its requirements.
- (ii) Determining during initial discussions with the subborrower whether the proposed subproject will involve IR (including making use of Annex S-2).
- (iii) Determining during initial discussions with the subborrower whether the proposed subproject will significantly affect the lives and livelihoods of tribal peoples (including making use of Annex S-3).
- (iv) Assessing the magnitude of IR and determining whether a short or full RP is required to address resettlement impacts.
- (v) Assessing the magnitude of impacts on tribal peoples and determine whether a full or short TDP is required to address tribal peoples issues.
- (vi) In the event that IR appears likely, guiding the proposed subborrower to prepare and submit to IIFCL for approval an RP prepared in accordance with the SSF as part of its PIM (see PIM guidelines).
- (vii) In the event that impacts on tribal peoples appear likely, guiding the subborrower to prepare and submit to IIFCL for approval a TDP prepared in accordance with the SSF as part of its PIM (see PIM guidelines).
- (viii) Evaluating the RP for compliance with principles listed in SSF and making recommendation to the IIFCL Board as to its adequacy and compliance.
- (ix) Evaluating the TDP for compliance with principles listed in SSF and making recommendation to the IIFCL board as to its adequacy and compliance.
- (x) Upon plan(s) approval(s), monitoring (or arranging for monitoring) the timely and effective implementation of the RP and/or TDP, including preparation of monitoring and evaluation reports.

110. The responsibility of complying with safeguards policy requirements is with each subborrower. But the facility will make sure such compliance is achieved by the subborrower prior to approval of the loan.

111. Proposals to IIFCL will typically arise from lead banks/designated lead syndicator and subborrowers either for seeking direct lending or for refinance.



112. The lead bank/designated lead syndicator and subborrower shall present its appraisal of the subproject for consideration of IIFCL. The IIFCL will not normally be required to carry out any independent appraisal of the project. Hence, the lead bank/designated lead syndicator and subborrower will be expected to provide IIFCL all the required documentation (consents, clearances, reports) in line with the requirements of IIFCL's SSF.

113. The subborrowers will be responsible for planning, preparing, financing, disclosing, and implementing an RP (including land acquisition and the payment of compensation) and/or TDP in accordance with this SSF and the applicable policies, laws, and regulations. Subborrowers will engage the requisite social scientific expertise in both IR and tribal development matters to help carry out the necessary studies, analyses, and document preparation. Such experts will also need to oversee subborrower implementation of any plans developed. Qualifications should include familiarity with devising resettlement plans according to both national and international standards and with the cultures and social structure of tribal groups.

114. Such qualified experts will assist the subborrowers in

- (i) Screening projects for IR effects or impacts on tribal peoples.
- (ii) Assessing the magnitude of resettlement and determining whether a short or full RP is required.
- (iii) Ensuring that the requirements of this SSF as regards land acquisition and the payment of compensation are being carried out.
- (iv) Assessing the magnitude of impacts on tribal peoples and determine whether a short or full TDP is required.
- (v) In the event that IR appears likely preparing and submitting to IIFCL for approval an RP prepared in accordance with this SSF as part of its Project Information Memorandum (see PIM guidelines).
- (vi) In the event that impacts on tribal peoples appear likely preparing and submitting to IIFCL for approval of a TDP prepared in accordance with this SSF as part of its Project Information Memorandum (see PIM guidelines).

115. Upon plan approval(s), the above experts may be engaged by the subborrower to help implement the RP and/or TDP, including preparation of monitoring and evaluation reports.

116. The lead bank/designated lead syndicator and subborrower shall be responsible for regular monitoring and periodic evaluation of compliance of the project with agreed milestones and performance levels particularly for purposes of disbursement of IIFCL funds. It shall send periodic progress reports in such form and, at such times, as may be prescribed by IIFCL. The lead banks/subborrowers will therefore be responsible to report RP and/or TDP compliance of the project to IIFCL in the formats as prescribed by the plans.

**Figure 1: IIPFF Roles and Responsibilities**

<b>Tasks</b>	<b>SUBBORROWER (Lead Bank/designated lead Syndicator/SubBorrower)</b>	<b>ESMU/IIFCL</b>	<b>Output</b>
Ascertain IR or tribal impacts	<ul style="list-style-type: none"> <li>• Conduct discussions, studies on safeguard compliance as part of feasibility studies</li> </ul>	<ul style="list-style-type: none"> <li>• Discussions with subborrowers and lead banks</li> </ul>	<ul style="list-style-type: none"> <li>• Studies on resettlement or tribal impacts</li> </ul>

<b>Tasks</b>	<b>SUBBORROWER (Lead Bank/designated lead Syndicator/SubBorrower)</b>	<b>ESMU/IIFCL</b>	<b>Output</b>
Confirm IR or tribal impacts	<ul style="list-style-type: none"> <li>• Consult ESMU/IIFCL</li> </ul>	<ul style="list-style-type: none"> <li>• Field visits (optional)</li> <li>• Decision on full or short plans</li> </ul>	<ul style="list-style-type: none"> <li>• Decision on preparing RP or TDP</li> </ul>
Prepare RP	<ul style="list-style-type: none"> <li>• Plan preparation</li> <li>• Consultations</li> <li>• Disclosure</li> </ul>	<ul style="list-style-type: none"> <li>• Give guidance</li> </ul>	<ul style="list-style-type: none"> <li>• RP (full or short)</li> </ul>
Prepare TDP	<ul style="list-style-type: none"> <li>• Plan preparation</li> <li>• Consultations</li> <li>• Disclosure</li> </ul>	<ul style="list-style-type: none"> <li>• Give guidance</li> </ul>	<ul style="list-style-type: none"> <li>• TDP (full or short)</li> </ul>
Submit RP/TDP	<ul style="list-style-type: none"> <li>• With PIM</li> <li>• Revise as necessary</li> </ul>	<ul style="list-style-type: none"> <li>• Appraise plans</li> <li>• Critique and approve</li> </ul>	<ul style="list-style-type: none"> <li>• Plan appraisal(s) with recommendations for change, if any</li> </ul>
Recommendation to IIFCL		<ul style="list-style-type: none"> <li>• Add conditionality provisions</li> </ul>	<ul style="list-style-type: none"> <li>• Conditionality provisions</li> </ul>
Update RP/TDP	<ul style="list-style-type: none"> <li>• Update plans in PIM and elsewhere as project design changes</li> </ul>	<ul style="list-style-type: none"> <li>• Update legal provisions</li> </ul>	<ul style="list-style-type: none"> <li>• Updated legal provisions</li> </ul>
RP and/or TDP implementation	<ul style="list-style-type: none"> <li>• Subproject operations</li> </ul>		<ul style="list-style-type: none"> <li>• Project implementation reports</li> </ul>
Monitoring/evaluation report	<ul style="list-style-type: none"> <li>• Internal monitoring</li> <li>• Reporting</li> </ul>	<ul style="list-style-type: none"> <li>• External monitoring</li> <li>• Evaluation</li> <li>• Reporting</li> </ul>	<ul style="list-style-type: none"> <li>• External monitoring reports</li> <li>• Evaluation report</li> </ul>

ESMU = Environment and Social Safeguards Management Unit; IIFCL = India Infrastructure Finance Company Limited; IR = involuntary resettlement; PIM = Project Information Memorandum; RP = Resettlement Plan; SPV = special purpose vehicles; TDP = Tribal Development Plans.

## ANNEX S-1: REVIEW OF POLICY AND LEGAL FRAMEWORK

### A. National Policy on Resettlement and Rehabilitation (NORR), 2006

1. In October 2006, the Department of Land Resources, Ministry of Rural Development of the Government of India (GOI) posted on its website a revised version of the 'National Policy for Resettlement and Rehabilitation of Project-Affected Families' (2003) under the title of 'National Rehabilitation Policy.' This Policy 2006 takes as its scope both displacement and resettlement and treat them as two phases of the same process. Within the 'displacement process framework', the Policy 2006 recognizes two broad categories of people, namely 'those who directly lose land and other assets' and 'those who are affected by such acquisition of assets.' The Policy 2006 applies to all public and private projects which displace people irrespective of the number of affected people. The exception is linear projects such as railway lines, highways, transmission lines, and projects, each of which requires the acquisition of narrow strips of land. For a project with a large number of displaced families, the Policy 2006 prescribes several mandatory actions such as the preparation of a social impact assessment and formulation of resettlement and rehabilitation plan. The population threshold that triggers such mandatory actions is the displacement of 400 or more families *en masse* in plain areas, or 200 or more families *en masse* in tribal or hilly areas, and in other specified areas in Schedule V and VI of the Constitution of India.

2. The Policy 2006 recognizes that the main cause of displacement is the acquisition of private property required for the construction of public facilities or infrastructure. Such displacement, if accepted, could deprive people of their land, livelihood, and shelter and restrict their access to traditional resource bases such as forests. It also recognizes that displacement could uproot people from their sociocultural environment which could cause traumatic, psychological, and sociocultural impacts on such displaced people. It promises 'affirmative state action' for protecting their rights and rehabilitating their families, especially of the displaced vulnerable groups.

3. The Policy 2006 emphasizes that resettlement and rehabilitation should be considered as "intrinsic" to the development process, which is informed by active participation of affected persons, rather than as externally imposed requirement. The Policy 2006 provides the 'basic minimum' that all projects leading to involuntary displacement must address. State governments and central public sector agencies are free to put in place greater benefit levels than those prescribed in the Policy 2006.

### B. Land Acquisition Act (LAA), 1894

4. The Act provides a framework for facilitation of land acquisition within the country. The Act enables the state to acquire private lands for public purposes. The Act ensures that no person is deprived of land except under the Act and entitles the landowner/APs to a hearing before acquisition. The salient features of the Act are given below.

- (i) Land identified for the purposes of a project is placed under Section 4 of the LAA. This constitutes notification. Objections must be made within 50 days to the DC.
- (ii) The land is then placed under Section 6 of the LAA. This is a declaration that the government intends to acquire the land. The DC is directed to take steps for the acquisition and the land is placed under Section 9. Interested parties are then invited to state their interest in the land and the price. Under Section 11, the DC

- shall make an award within one year of the date of publication of the declarations. Otherwise, the acquisition proceedings shall lapse.
- (iii) In case of disagreement on the price awarded, within six weeks of award, the parties (under Section 18) can request the DC to refer the matter to the courts to make a final ruling on the amount of compensation.
  - (iv) Once the land has been placed under Section 4, no further sales or transfers are allowed. However, since the time lag between Sections 4 and the others following it is about 3 years, land transfers are not uncommon.
  - (v) Compensation for land and improvements (such as houses, wells, trees, etc.) is paid in cash by the project authorities to the state government, which in turn compensates landowners.
  - (vi) The price to be paid for the acquisition of agricultural land is based on sale prices recorded in the district registrar's office averaged over the three years preceding notification under Section 4. The compensation is paid after the area is acquired, actual payment by the state taking about 2 or 3 years. An additional 30% is added to the award as well as an escalation of 12% per year from the date of notification to the final placement under Section 9, an additional 9% per annum is paid for the first year and 15% for subsequent years.

### **C. ADB's Involuntary Resettlement Policy (Indicative of Lenders' Policies)**

5. The three important elements of the IR policy are (i) compensation to replace lost assets, livelihood, and income; (ii) assistance for relocation, including provision of relocation sites with appropriate facilities and services; and (iii) assistance for rehabilitation to achieve at least the same level of well-being with the project as without it. Some or all of the elements may be present in a project involving IR.

### **D. Scheduled Caste and Scheduled Tribes (Prevention of Atrocities Act), 1989**

6. This Act prevents the commission of offences of atrocities against members of the Scheduled Tribes and Castes and provides for a special court for the trial of offences against SCs and STs. It also provides for the relief and rehabilitation of victims of such offences.

### **E. Panchayat Extension to Scheduled Areas Act (PESA), 1996**

7. Panchayat Extension to Scheduled Areas Act was passed in 1996. The act is meant to enable tribal society to assume control over their resources and development. The provisions of the 73<sup>rd</sup> Amendment, with some modifications, were extended to the tribal areas under Schedule V in the States of Andhra Pradesh, Bihar, Gujarat, Himachal Pradesh, Maharashtra, Madhya Pradesh, Orissa, and Rajasthan.

### **F. ADB's Indigenous Peoples (IP) Policy (Indicative of Lenders' Policies)**

8. For the development interventions it supports or assists, the bank will ensure that affected populations and persons are at least as well-off as they would have been in the absence of the intervention, or that adequate and appropriate compensation be provided. Policy should ensure equality of opportunity for indigenous peoples. Policy must ensure that bank interventions affecting indigenous peoples are (i) consistent with the needs and aspirations of affected IP; (ii) compatible in substance and structure with affected IP culture and social and economic institutions; (iii) conceived, planned, and implemented with the informed participation of affected communities; (iv) equitable in terms of development efforts and impact; and (v) not

imposing the negative effects of development on IP without appropriate and acceptable compensation.

9. Consultation with indigenous peoples groups is the key to developing an effective, accurate, and responsive IP development plan.

### ANNEX S-2: RESETTLEMENT SCREENING CHECKLIST

Impact	Not Known	Yes	No	Indication of scope (no. of affected people, land area, land use, structures, etc.)
Is the prospective subproject company (PPC) undertaking or likely to undertake any land acquisition?				
Is the PPC acquiring land through willing buyer to willing seller transactions?				
Does the PPC have any agreements or is it likely to enter into agreements with the government for provision of sites or land or rights to land?				
Is any of the land used by the PPC (or likely to be used by the PPC) compulsorily acquired?				
Will any PPC activities involve restrictions of use on adjoining land?				
Are the sites for land acquisition known?				
What is the ownership status of the land?				
Are non-titled persons present?				
Will tenants, lessees, share farmers, or other third party users be affected?				
Will there be loss of housing?				
Will there be loss of crops, trees, and other fixed assets?				
Will there be loss of incomes and livelihoods?				
Will access to facilities, services, or resources be lost?				
Will there be loss of businesses or enterprises?				
Will any social or economic activities be affected by land use related changes?				
<b>If involuntary resettlement impacts are expected:</b>				
Are local laws and regulations compatible with ADB's involuntary resettlement policy?				
Will land be acquired through the government or by the PPC?				
Do PPC agreements with the government (if any) specify involuntary resettlement will be conducted in accordance with international standards?				
Does the government executing agency/PPC have sufficient skilled resources for resettlement planning and implementation?				
Are training and capacity building required prior to resettlement planning and implementation?				

### ANNEX S-3: TRIBAL PEOPLES EFFECTS SCREENING CHECKLIST

Impact on tribal peoples	Not Known	Yes	No	Remarks or identified problems, if any
Are there tribal groups present in project locations?				
Do they maintain distinctive customs or economic activities that may make them vulnerable to hardship?				
Will the subproject restrict their economic and social activity and make them particularly vulnerable in the context of project?				
Will the subproject change their socioeconomic and cultural integrity? <sup>1</sup>				
Will the subproject disrupt their community life?				
Will the subproject positively affect their health, education, livelihood, or social security status?				
Will the subproject negatively affect their health, education, livelihood, or social security status?				
Will the subproject alter or undermine the recognition of their knowledge, preclude customary behaviors, or undermine customary institutions?				
In case there is no disruption of tribal community life as a whole, will there be loss of housing, loss of land, crops, trees, and other fixed assets owned or controlled by individual tribal households?				

<sup>1</sup> That is, undermine their production systems and the maintenance and transmission of their cultural patterns.

### ANNEX S-4: SCOPE OF SHORT RESETTLEMENT PLAN

Topic	Contents
<b>Executive Summary</b>	
Scope of land acquisition and resettlement	<ul style="list-style-type: none"> <li>• Alternative options, if any, considered to minimize land acquisition and its effects and why the remaining effects are unavoidable</li> <li>• Summary of key effects in terms of land acquired, assets lost, number of affected people, and socioeconomic data</li> </ul>
Objectives, policy framework, and entitlements	<ul style="list-style-type: none"> <li>• Policy and legal framework for resettlement, with any gaps in this framework as compared to lenders' policies and the SSF</li> <li>• Measures proposed to bridge the gap between lenders' and policies and the SSF and national/provincial laws and regulations</li> <li>• Eligibility policy and entitlement matrix for all categories of loss, including compensation rates at replacement costs</li> </ul>
Gender impact and mitigative measures	<ul style="list-style-type: none"> <li>• Identify socioeconomic condition, needs, and priorities of women</li> <li>• Include measures to ensure that process of land acquisition and resettlement does not disadvantage women and that land/house titles should be in the name of both spouses</li> </ul>
Information dissemination, consultation, participatory approaches, and disclosure requirements	<ul style="list-style-type: none"> <li>• Identification of project stakeholders</li> <li>• Disclosure of project information</li> <li>• Consultations for determining principles</li> <li>• Mechanisms for stakeholder participation in planning, management, monitoring, and evaluation</li> <li>• Disclosure of Resettlement Plan (RP) to affected people</li> <li>• Local institutions or organizations to support affected people potential role of non-government organizations (NGOs), women's groups, and community-based organizations (CBOs)</li> </ul>
Grievance redress mechanisms	<ul style="list-style-type: none"> <li>• Mechanisms for resolution of conflicts and appeals procedures</li> </ul>
Compensation, relocation, and income restoration	<ul style="list-style-type: none"> <li>• Arrangements for valuing and disbursing compensation</li> <li>• Arrangements for housing relocation, including transfer, re-establishment, and integration with host populations</li> <li>• Income restoration measures</li> <li>• Environmental risks identification and arrangements for environmental management and monitoring</li> </ul>
Institutional framework	<ul style="list-style-type: none"> <li>• Main tasks and responsibilities in planning, managing, and monitoring land acquisition and resettlement.</li> <li>• Ensure that (i) women's groups are involved in resettlement planning, management and operations, job creation and income generation; and (ii) female staff should be hired by the resettlement agency to work with and assist women in all aspects of resettlement activities.</li> </ul>
Resettlement budget and financing	<ul style="list-style-type: none"> <li>• Land acquisition and resettlement costs and funding sources including arrangements for timely disbursement to APs</li> </ul>
Implementation schedule	<ul style="list-style-type: none"> <li>• Time-bound actions for projected activities to ensure that affected people are compensated and assisted before award of civil works contracts</li> </ul>
Monitoring and evaluation	<ul style="list-style-type: none"> <li>• Arrangements for M&amp;E</li> <li>• Impact on women monitored and evaluated separately</li> </ul>



### ANNEX S-5: SCOPE OF FULL RESETTLEMENT PLAN

Topic	Contents
<b>Executive Summary</b>	
Scope of land acquisition and resettlement	<ul style="list-style-type: none"> <li>• Scope of and rationale for land acquisition</li> <li>• Alternative options, if any, considered to minimize land acquisition and its effects, and justification for remaining effects</li> <li>• Key effects in terms of land acquired, assets lost, and number of affected people</li> <li>• Primary responsibilities for land acquisition and resettlement</li> </ul>
Socioeconomic information	<ul style="list-style-type: none"> <li>• Population record of affected people</li> <li>• Data on existing economic and social conditions of affected people, including socioeconomic survey. Gender disaggregated socioeconomic data is necessary</li> <li>• Asset inventory, land assessment, and assessment of other losses resulting from land acquisition, taking into account social, cultural, and economic impact on affected people</li> <li>• Details on common property resources, if any</li> <li>• Project impact on the poor, tribal people, ethnic minorities, and other vulnerable groups (including women)</li> <li>• Special measures needed to enhance economic and social base of vulnerable groups</li> </ul>
Objectives, policy framework and entitlements	<ul style="list-style-type: none"> <li>• Purpose and objectives of land acquisition and resettlement</li> <li>• Policy and legal framework for resettlement, with any gaps in this framework as compared to lenders' policies and the SSF</li> <li>• Measures proposed to bridge the gap between lenders' and policies and the SSF and national/provincial laws and regulations</li> <li>• Principles, legal, and policy commitments from executing agency for different categories of project impacts</li> <li>• Eligibility policy and entitlement matrix for all categories of loss, including compensation rates at replacement costs</li> <li>• Principles for determining valuation and compensation for assets, incomes, and livelihoods</li> </ul>
Gender impact and mitigating measures	<ul style="list-style-type: none"> <li>• Identification of socioeconomic condition, needs, and priorities of women</li> <li>• Measures to ensure that process of land acquisition and resettlement does not disadvantage women</li> <li>• New land/house titles should be in the name of both spouses. For land/house given as replacement property, titles should be in the name of the person who brought in the original property</li> </ul>
Information dissemination, consultation, participatory approaches, and disclosure requirements	<ul style="list-style-type: none"> <li>• Identification of project stakeholders</li> <li>• Disclosure of project information</li> <li>• Consultations for determining principles</li> <li>• Mechanisms for stakeholder participation in planning, management, monitoring, and evaluation</li> <li>• Disclosure of RP to affected people</li> <li>• Local institutions or organizations to support affected people. Potential role of non-government organizations (NGOs), women's groups, and community-based organizations (CBOs)</li> </ul>
Grievance redress mechanisms	<ul style="list-style-type: none"> <li>• Mechanisms for resolution of conflicts and appeals procedures</li> </ul>

Topic	Contents
Relocation of housing and settlements	<ul style="list-style-type: none"> <li>• Options for relocation of housing and other structures, including replacement housing, replacement cash compensation, and/or self selection</li> <li>• Measures to assist with transfer and establishment at new sites</li> <li>• Options for developing relocation sites, if required, in terms of location, quality of site, and development needs</li> <li>• Plan for layout, design, and social infrastructure and services for each site</li> <li>• Measures for planned integration with host communities</li> <li>• Special measures for addressing gender issues and those related to vulnerable groups</li> <li>• Environmental risks identification and arrangements for environmental management and monitoring</li> </ul>
Income restoration strategy	<ul style="list-style-type: none"> <li>• Identification of livelihoods at risk</li> <li>• Income restoration strategy with options to restore all types of livelihoods</li> <li>• Job creation plan, including provisions for income substitution, retraining, self-employment, and pensions, where required</li> <li>• Business relocation and restoration plan, including income substitution, where required</li> <li>• Environmental risks identification and arrangements for environmental management and monitoring</li> </ul>
Institutional framework	<ul style="list-style-type: none"> <li>• Main tasks and responsibilities in planning, negotiating, consulting, approving, coordinating, implementing, financing, monitoring, and evaluating land acquisition and resettlement</li> <li>• Review of mandate of the land acquisition and resettlement agencies and their capacity to plan and manage these tasks</li> <li>• Provision for capacity building, including technical assistance, if required</li> <li>• Role of NGOs, if involved, and organizations of affected persons in resettlement planning and management</li> <li>• Involvement of women's groups in resettlement planning, management, and operations, job creation, and income generation</li> <li>• Female staff should be hired by the resettlement agency to work with and assist women in all aspects of resettlement activities, including planning and implementation of income restoration programs</li> </ul>
Resettlement budget and financing	<ul style="list-style-type: none"> <li>• Cost estimates, budgets, and cash flows for meeting the objectives of the RP according to established schedules</li> <li>• Land acquisition and resettlement costs</li> <li>• Annual budget and timing for release of funds</li> <li>• Sources of funding for all land acquisition and resettlement activities</li> </ul>
Implementation schedule	<ul style="list-style-type: none"> <li>• Time schedule showing start and finish dates for major resettlement tasks</li> <li>• Time-bound actions for projected activities to ensure that affected people are compensated and assisted before award of civil works contracts or similar milestone, ensuring as a minimum that affected people will be provided with entitlements, such as land and asset compensation and transfer allowances, prior to their displacement</li> </ul>
Monitoring and evaluation	<ul style="list-style-type: none"> <li>• Plan for internal monitoring of resettlement targets, specifying key indicators of progress, mechanisms for reporting, resource requirements, and database maintenance</li> <li>• Plan for external and independent M&amp;E</li> <li>• Participation of affected people in M&amp;E</li> <li>• Impacts on women</li> </ul>

## **ANNEX S-6: PAYING REPLACEMENT VALUE**

### **A. Replacing what is lost**

1. If individuals or a community must lose all or part of their land, means of livelihood, or social support systems so that a project might proceed, they will be compensated and assisted to replace lost land, housing, infrastructure, resources, income sources, and services in cash or kind so that their economic and social circumstances will be at least restored to the pre-project level. If the residual of an asset taken is not economically viable, compensation and other assistance are provided as for the entire asset. Non-land-based options may be used where land is not the preferred option of the affected people or where land of similar quality and quantity is not available.

2. All compensation is based on the principle of replacement cost. Replacement cost means the method of valuing assets to replace the loss at market value or its nearest equivalent plus any transaction costs such as administrative charges, taxes, registration, and titling costs. Where GOI regulations do not meet this standard, the replacement cost will be supplemented as necessary. Replacement cost is based on market value before the project or dispossession, whichever is higher. In the absence of functioning markets, a compensation structure is required that enables affected people to restore their livelihoods to levels at least equivalent to those maintained at the time of dispossession, displacement, or restricted access. Replacement cost of an affected asset is equivalent to the amount required to replace the asset in its existing condition. The replacement cost of structures should be equal to the cost of constructing/purchasing a new structure, without making any deductions for depreciation.

3. To assist in the determination of how “replacement cost” will be determined, the subborrower will finance the formation of compensation committees, with due AP representation, to help the relevant land acquisition agency arrive at the replacement price. If the statutory compensation is lower than the replacement value, it is mandatory to pay the difference as a form of “resettlement assistance” to each AP.

### **B. Land Acquisition and Concessioneing Agency**

4. Land acquisition for a public purpose or for a company is done by the state government authorities as per the Land Acquisition Act. The required payment for such acquisition, known as the 'circle rate,' is decided by the acquiring officer and district collector. Although the 'circle rate' is expected to be the 'market value,' often it is not the case. Therefore, what is necessary is to have a compensation committee which reviews the land market in the area and decides in consultation with affected persons the current market value of land which is also the replacement value of such land. If the circle rate is less than the replacement value, the concessioneing agency will also have to pay the difference so that APs get the market value (replacement value) of the land lost. This applies to structures, houses, and commercial buildings.

### **C. Civil Works and Resettlement Assistance**

5. The draft National Rehabilitation Policy (2006) recognizes that displacement and other project impacts make it difficult for affected families to continue their livelihood. The policy proposes that a project provide each affected family ‘on replacement cost basis’ agricultural land or cultivable wasteland, if government land is available for distribution. This benefit would

also be available to affected families who have, as a consequence of land acquisition, been reduced to the status of marginal farmers.

6. In addition to receiving replacement value of all acquired property prior to physical displacement and commencement of physical works of a project, each AP is entitled to economic rehabilitation. A comprehensive economic rehabilitation plan, together with allocated funds to implement it, should be ready before the project is approved. As economic rehabilitation programs could take long period to complete, the subborrowers should make necessary arrangements, and monitor and evaluate the adequacy and relevance of such programs. As part of the economic rehabilitation programs, local skill development and income generation programs should be examined and priority registration in such programs should be given to APs.

## ANNEX S-7: SAMPLE ENTITLEMENTS MATRIX FORMAT

1. The entitlement matrix provides guidance for compensation, resettlement, and rehabilitation assistance planning. Lack of title/customary rights recognized under law will not be a bar to entitlement. Hence, non-titled encroachers and squatters as well as indigenous or other groups with customary rights over land or resources, if present in the project area, will be eligible for compensation (the entitlement matrix provides additional elements to vulnerable persons). However, people moving into the project area after the cut-off date are not entitled to compensation and resettlement benefits. The entitlement matrix provides all possible categories of losses to ensure that all resettlement impacts of all subproject components to be finalized during design will be addressed.

2. The entitlement matrix below outlines various types of losses resulting from the subprojects and provides for compensation and R&R packages. If during further processing of a subproject and loan implementation additional resettlement impacts are identified, the entitlement matrix will be updated by including provision of compensation and assistance for the additional impacts as per the SSF by mutual consent between the subborrower and the Facility.

Type of Loss	Unit of Entitlement	Entitlements
I. Agricultural land	a) Titleholder family b) Family with customary land rights c) Authorized encroacher/squatter family	(i) Compensation at replacement value (ii) Compensation for land will be paid as per Land Acquisition Act, 1894. If the replacement cost (determined as per this policy framework) is more than the compensation, as determined by the compensation committee in consultation with IIPFF, then the difference is to be paid by the subproject in the form of “resettlement assistance.” (iii) If the residual plot(s) is (are) not viable, i.e. less than average land holding of the district, the following options will be given to the AP. <ul style="list-style-type: none"> <li>• The AP keeps the remaining land and the compensation and assistance is paid to the landowner for the land to be acquired.</li> <li>• Compensation and “resettlement assistance” are given for the entire plot including residual plot, if the owner of such land wishes that the project authority should also acquire his residual plot. The project authority will acquire the residual plot so paid.</li> <li>• If AP is from vulnerable group, compensation for the entire land will be by means of land-for-land if so wished by AP and provided that the land of equal or more productive value is available.</li> </ul> (iv) Fully physically displaced families (losing their entire land) belonging to ST category (tribal) will be provided with 2.5 acres of irrigated agricultural land or 5 acres of non-irrigated agricultural land. (v) Fully physically displaced families (losing their entire land and residence) belonging to all other categories except STs shall be provided two acres of irrigated agricultural land or four acres of non-irrigated agricultural land. In case of non-availability of land, cash equivalent will be provided each of an

Type of Loss	Unit of Entitlement	Entitlements
II. Homestead land and assets (residential land and structure)	a) Titleholder/owner residential land/structure b) Owner residential land/structure with customary rights c) Authorized residential encroachers/squatters	<p>amount of Rs/acre of irrigated land and an amount of Rs/acre of non-irrigated land which includes the cost of reclamation.</p> <p>(vi) All fees, stamp duties, taxes, and other charges, as applicable under the relevant laws, incurred in the relocation and rehabilitation process, are to be borne by the subborrower.</p> <p>(vii) Transitional allowance in Rs/month per displaced family shall be provided on the vacation of land/house for a period of one year from the date of vacation as determined by the collector concerned.</p> <p>(i) Compensation at replacement value</p> <p>(ii) Compensation for residential land will be paid as per LA act. If replacement value for land and structure is more than the compensation determined by the compensation committee in consultation with IIPFF, then difference is to be paid by the subborrower in the form of "assistance."</p> <p>(iii) Replacement value for residential structure (part or full), which will be calculated as per the prevailing basic schedule of rates (BSR) without depreciation, subject to relevant "quality standards" of BSR as maintained by the government/authorized body.</p> <p>(iv) Fully physically displaced family (losing its entire residential land and/or structure) will be eligible for assistance in the form of 0.10 acre of homestead land in rehabilitation habitat or cash equivalent if opting for self-relocation elsewhere.</p> <p>(v) Fully physically displaced family (losing its entire residential land and/or structure) will get house building assistance in rupees which include cattle shed. This will be admissible to all physically displaced families whether settling in a resettlement habitat or elsewhere.</p> <p>(vi) In order to ensure timely vacation, an allowance in Rs/month per displaced family shall be provided on vacation of land/house for a period of one year from the date of vacation as determined by the collector concerned.</p> <p>(vii) For construction of temporary shed, assistance in rupees shall be provided to each physically displaced family.</p> <p>(viii) Transportation allowance in rupees or free transportation to the resettlement habitat per physically displaced family by the project authority.</p> <p>(ix) Right to salvage material from demolished structure/building.</p> <p>(x) Project assisted relocation option will be provided to fully physically displaced persons and those whose residential structures becomes non-livable as a result of subproject impacts and a relocation site will be developed in consultation with these affected households provided that such land is</p>

Type of Loss	Unit of Entitlement	Entitlements
III. Homestead land and assets (commercial land and structure)	a) Titleholder/owner commercial land/structure b) Owner commercial land/structure with customary right c) Authorized commercial encroachers/squatters	<p>available in the same locality. Basic amenities and other necessary infrastructure at relocation sites will be provided by the subborrower.</p> <p>(i) Compensation at replacement value</p> <p>(ii) Compensation for commercial land will be paid as per LA act. If replacement cost for land and structure is more than the compensation determined by the compensation committee, then difference is to be paid by the subborrower in the form of "resettlement assistance."</p> <p>(iii) Replacement value for commercial structure (part or full), which will be calculated as per the prevailing basic schedule of rates (BSR) without depreciation, subject to relevant "quality standards" of BSR as maintained by the government/authorized body.</p> <p>(iv) Fully physically displaced family (losing its entire commercial land and/or structure) will be eligible for assistance in the form of 0.10 acre of homestead land in rehabilitation habitat or cash equivalent if opting for self-relocation elsewhere.</p> <p>(v) Fully physically displaced family (losing its entire commercial land and/or structure) will get building assistance in rupees which includes a cattle shed. This will be admissible to all displaced families whether settling in a resettlement habitat or elsewhere.</p> <p>(vi) In order to ensure timely vacation, a transitional allowance in Rs/month per displaced family shall be provided on vacation of land/structure for a period of one year from the date of vacation as determined by the collector concerned.</p> <p>(vii) Transportation allowance in rupees or free transportation to the resettlement habitat or their new place of inhabitation shall be provided to each displaced family by the project authority.</p> <p>(viii) For re-establishment of business, assistance in rupees shall be provided to each displaced family by way of providing commercial structure.</p> <p>(ix) Right to salvage material from demolished structure.</p> <p>(x) Project assisted relocation option will be provided to fully displaced persons and those whose commercial structures becomes non-livable as a result of project impacts and a relocation site will be developed in consultation with these affected households provided that such land is available in the same locality. Basic amenities and other necessary infrastructure at relocation sites will be provided by the subborrower.</p>
IV. Residential tenancy	a) Residential tenant	(i) The amount of deposit or advance payment paid by the tenant to the landlord and/or the remaining

Type of Loss	Unit of Entitlement	Entitlements
		<p>amount at the time of expropriation. (This will be deducted from the payment of assistance to the landlord/owner).</p> <p>(ii) A sum equal to 3 months rental in consideration of the disruption caused.</p> <p>(iii) Compensation for any structure that tenant has erected on the property. (This will be deducted from such payment to the landlord/owner).</p> <p>(iv) For construction of temporary shed, assistance in rupees shall be provided to each displaced family.</p> <p>(v) Transportation allowance or free transportation to the resettlement habitat or their new place of inhabitation shall be provided to each displaced family by the project authority.</p>
V. Commercial tenancy	b) Commercial tenants	<p>(i) The amount of deposit or advance payment paid by the tenant to the landlord and/or the remaining amount at the time of expropriation. (This will be deducted from the payment of assistance to the landlord/owner).</p> <p>(ii) A sum equal to three months rental in consideration of the disruption caused.</p> <p>(iii) Compensation for any structure that tenant has erected on the property. (This will be deducted from such payment to the landlord/owner).</p> <p>(iv) For construction of temporary shed, assistance in rupees shall be provided to each displaced family.</p> <p>(v) Transportation allowance or free transportation to the resettlement habitat or their new place of inhabitation shall be provided to each displaced family by the project authority.</p>
VI. Agricultural land possessed by squatters and encroachers	a) Agricultural squatters belong to the vulnerable group	<p>(i) Eligible to get ex-gratia equal to compensation admissible under the Land Acquisition Act, 1894, for a similar category of land to the extent of land under his/her physical possession up to a maximum of one standard acre.</p> <p>(ii) APs will be notified and given a time frame in which they will be required to remove their assets and harvest their crops.</p> <p>(iii) Compensation for standing perennial and non-perennial crops grown by the APs.</p> <p>(iv) Right to salvage materials from the demolished structure.</p>
VII. Homestead land possessed by squatters and encroachers	a) Squatters belong to the vulnerable group	<p>(i) Ex-gratia equal to compensation for land to landless families as per LAA</p> <p>(ii) R&amp;R assistance:</p> <ul style="list-style-type: none"> <li>• Eligible to get ex-gratia, equal to compensation for the similar category of homestead land, against the encroached homestead land up to a maximum of 1/10<sup>th</sup> of an acre in rural areas or 1/25<sup>th</sup> of an acre in urban areas.</li> <li>• APs will be notified and given a time in which</li> </ul>



Type of Loss	Unit of Entitlement	Entitlements
		<p>they will be required to remove their assets.</p> <ul style="list-style-type: none"> <li>• In order to ensure timely vacation, a transitional allowance in Rs/month per displaced family shall be provided on vacation of land/structure for a period of one year from the date of vacation as determined by the collector concerned.</li> <li>• For construction of temporary shed, assistance in Rs shall be provided to each displaced family.</li> <li>• Transportation allowance in rupees or free transportation to the resettlement habitat or their new place of inhabitation shall be provided to each displaced family by the project authority.</li> </ul>
VIII. Residential and commercial structure by squatters and encroachers	a) Squatters belong to the vulnerable group	<ul style="list-style-type: none"> <li>(i) Compensation for structure at replacement value</li> <li>(ii) Right to salvage materials from the demolished structure.</li> <li>(iii) In order to ensure timely vacation, a transitional allowance per month per displaced family shall be provided on vacation of land/structure for a period of one year from the date of vacation as determined by the collector concerned.</li> <li>(iv) For construction of temporary shed, assistance in Rs shall be provided to each displaced family.</li> <li>(v) Transportation allowance in Rs or free transportation to the resettlement habitat or their new place of inhabitation shall be provided to each displaced family by the subborrower.</li> </ul>
IX. Shifting business—mobile vendors	a) Households	Not eligible for compensation or "assistance." Ambulatory vendors who have been granted license for operating will be considered as kiosk.
X. Kiosks	a) Household	"Assistance" in Rs for business disruption
XI. Loss of wage earnings	<ul style="list-style-type: none"> <li>a) employee in commercial establishments</li> <li>b) agricultural laborer/share-croppers/tenants</li> </ul>	<ul style="list-style-type: none"> <li>(i) Individual employee/agricultural laborer/sharecropper indirectly affected due to their employer being displaced will be assisted for their economic rehabilitation in cash payment.</li> <li>(ii) Assistance is to be paid on a case-by-case basis, as per the prevailing local wage rates for up to 100 days.</li> <li>(iii) Employment priority for APs in the construction work, if so desired by them.</li> <li>(iv) Preference will be given to these APs in availing other development program/schemes being implemented by the government in the project area.</li> <li>(v) Vocational training funded by subborrower would be provided for upgrading of skills to the APs belonging to vulnerable groups and losing their commercial structures.</li> </ul>
XII. Income from non-perennial crops and non-	a) Titleholder family losing agricultural land	<ul style="list-style-type: none"> <li>(i) Advance notice to APs to harvest their crops and fruits</li> <li>(ii) In case of standing crops, cash compensation at</li> </ul>

Type of Loss	Unit of Entitlement	Entitlements
fruit bearing tree	b) Eligible squatters and encroachers using land	(iii) current market value Grant for replacement of seeds for the next season's harvest towards loss of crops before harvest in case of forced relocation. (iv) Trees will be compensated as per prevailing rate of Forest Department.
XIII. Perennial crops such as fruit bearing trees	a) Titleholder family losing agricultural land b) Agricultural squatters belong to vulnerable group	(i) Advance notice to APs to harvest their crops and fruits (ii) Compensation for perennial crops and trees calculated as annual produce value for at least three seasons. (iii) Grant for replacement of seeds for the next season's harvest towards loss of crops before harvest in case of forced relocation. (iv) Trees will be compensated as per prevailing rate of Forest Department.
XIV. Negative impacts on scheduled tribe family	a) Families belong to ST category	(i) While developing the resettlement plans, the sociocultural norms of indigenous and primitive tribal groups will be respected. (ii) Each physically displaced family of indigenous category shall be given preferential allotment of land. Such arrangements will be spelled out in the RP and/or TDP. (iii) As far as practiceable, indigenous communities should be resettled in a compact area close to their natural habitat. (iv) Indigenous displaced families involuntarily resettled outside the district shall be given 25% higher R&R benefits in monetary terms.
XV. Common property resources	a) Community	Relocation: Either subproject or district administration shall take up construction at a new place as would be determined in consultation with representatives of affected persons/community.
XVI. Temporary impact during construction include disruption of crops and damage to adjacent parcel of land and other assets	a) Community b) Household c) Individual	Compensation: (i) The contractor shall bear the cost of any impact on crops' adjacent land during construction. (ii) All temporary use of lands outside proposed site to be through written approval of the landowner by contractor. (iii) Location of construction camps by contractors in consultation with EA and local people.
XVII. Unforeseen impacts, if any	a) Community b) Household c) Individual	(i) Compensation as per this policy framework (ii) R&R assistance as per this policy framework

3. The subproject will assist APs and, especially the most vulnerable groups, in finding suitable sites/vendor markets to re-establish their houses/businesses in consultation with APs.
4. The project entitlement framework adopts the following principles.
  - (i) Resettlement impacts of each subproject will be avoided or minimized, exploring all viable alternative subproject designs.
  - (ii) Where the resettlement impacts are unavoidable, time-bound Resettlement Plans shall be prepared and APs shall be assisted in improving or at least regaining their standard of living.
  - (iii) AP participation will be ensured in the planning and implementing project and resettlement information will be disclosed to all of them.
  - (iv) Vulnerable groups, including households headed by women, the elderly or disabled and indigenous groups and those without legal title to land and property will be given special assistance to help them improve their socioeconomic status.
  - (v) All lost assets acquired of affected will be compensated; compensation is based on the principle of replacement costs.
  - (vi) The APs need to be provided with sufficient resources to re-establish their livelihoods and homes with the bounced action in coordination with civil works.
  - (vii) APs are to be assisted to integrate economically and socially into host communities so that adverse impacts on the host communities are minimized and social harmony is promoted.
  - (viii) The absence of formal title to land is not a bar to policy entitlements.

**ANNEX S-8: SCOPE OF SHORT TRIBAL DEVELOPMENT PLAN**

A short TDP may take the form of (i) incorporating tribal peoples (who might be excluded from the project) into the project beneficiary group; (ii) incorporating tribal peoples' needs (that may not be addressed by the project) into the project plan; and (iii) a common community action plan where tribal groups live with the non-tribal peoples in the same project location. The project should avoid any unnecessary distinctions or inequalities between tribal peoples and other poor and marginal groups who live in the same locality.

## ANNEX S-9: SCOPE OF FULL TRIBAL DEVELOPMENT PLAN

<b>Executive Summary</b>	
<b>I.</b>	<p><b>Background and context</b></p> <ul style="list-style-type: none"> <li>a. The project and project components</li> <li>b. Relevant state legal framework</li> <li>c. Baseline data of tribal peoples in the project area               <ul style="list-style-type: none"> <li>i. maps of the area of project influence and the areas inhabited by tribal peoples</li> <li>ii. brief analysis of the social structure and income sources of project affected tribal peoples</li> <li>iii. information on relevant cultural practices and patterns</li> <li>iv. relationship of tribal peoples to other local/national groups</li> </ul> </li> <li>d. Key positive project effects on tribal peoples</li> <li>e. Key negative project effects on tribal peoples</li> </ul>
<b>II.</b>	<p><b>Development and/or mitigating activities</b></p> <ul style="list-style-type: none"> <li>a. Describe details of development (e.g. benefits-sharing) activities</li> <li>b. Describe details of mitigating activities</li> </ul>
<b>III.</b>	<p><b>Strategy for tribal peoples participation</b></p> <ul style="list-style-type: none"> <li>a. Describe mechanism for participation by tribal peoples in planning, implementation, monitoring, and evaluation</li> <li>b. Describe procedures for a project-related grievance procedure</li> </ul>
<b>IV.</b>	<p><b>IV. Institutional arrangements - implementing agency (IA)</b></p> <ul style="list-style-type: none"> <li>a. Identify main tasks and responsibilities in planning, managing, and monitoring development and/or mitigating activities</li> <li>b. Identify role of NGOs or tribal peoples organizations in implementing the development and/or mitigating activities</li> </ul>
<b>V.</b>	<p><b>Budget and financing</b></p> <ul style="list-style-type: none"> <li>a. Identify development and/or mitigating activity costs (including contingency funds) and funding resources</li> <li>b. Provide detailed cost estimates for planned activities and investments, such estimates should be broken down into unit costs by project year and linked to a financing plan</li> </ul>
<b>VI.</b>	<p><b>Supervision/Implementation</b></p> <ul style="list-style-type: none"> <li>a. Specify arrangements for supervision of TDP, e.g. annual reports, inspections</li> </ul>
<b>VII.</b>	<p><b>Monitoring</b></p> <ul style="list-style-type: none"> <li>a. Prepare a plan for internal and independent monitoring and evaluation of the targets of the major development and/or mitigating activities related to tribal peoples</li> </ul>

## ANNEX S-10: DRAFT TOR FOR AN EXTERNAL AGENCY FOR MONITORING AND EVALUATION

### A. Objective/Purpose of the Assignment

1. Monitoring is an integral part of both the resettlement process and of a Tribal Development Plan (TDP). The agency will be involved in ongoing monitoring of resettlement implementation and/or of a TDP. The objectives of external M&E are to review implementation and assess the (i) achievement of resettlement and/or TDP objectives, (ii) changes in living standards and livelihoods and restoration of economic and social base of the APs, (iii) the effectiveness, impact, and sustainability of entitlements, and (iv) need for further mitigating measures, if any. External M&E should also enable the executing agency to make timely decisions on corrective measures needed to implement resettlement and/or the TDP effectively and learn strategic lessons for future policy formulation and planning.

### B. Qualifications

2. The selected organization should be of high professional standing and have a strong track record in the field of social development, resettlement, and tribal development. It should also have a proven record in project monitoring and be able to demonstrate adequate resources.

### C. Scope of Work

3. The major tasks expected from the external monitoring are

- (i) Review and verify internal monitoring systems and findings.
- (ii) Conduct independent investigations of project implementation, including PIUs, local offices, and consultations with village leaders, NGOs, and affected people, especially women and vulnerable groups.
- (iii) Prepare independent reports based on monitoring visits.
- (iv) Suggest major recommendations for remedial actions.
- (v) Identify lessons learned.
- (vi) Maintain database of independent surveys.
- (vii) Suggest remedial actions with time-based outputs.
- (viii) Certify compliance with requirements of RP and/or TDP.
- (ix) Share the major lessons from the process both in terms of success and failure.

### D. Detailed Tasks

4. Prior to commencement, prepare a monitoring and evaluation plan giving details on

- (i) Aim and scope of monitoring system
  - Setting up the objectives of monitoring
  - Defining the monitoring system and monitoring cycle
  - Defining the scope of monitoring
- (ii) **Monitoring strategy.** The general approach to be used to monitor activities and results ensuring participation of all stakeholders, especially women and vulnerable groups.
- (iii) **Project results.** A summary of the major project activities, expected results, and the indicators to be used to monitor the progress and achievement of results.

- (iv) Defining and selecting indicators
  - Identify key indicators to be monitored
  - Indicators for each stage of project implementation
  - Gender-disaggregated indicators
  - Select only those which are simple, specific, and verifiable
- (v) Collection and Analysis of Data
  - Method of data collection
  - Sampling (20% of affected people)
  - Analysis
- (vi) Verify the internal monitoring process and reporting by executing agency (EA) through field visits and independent investigations.
- (vii) Assess the extent to which the resettlement plan and/or TDP is being followed and objectives being met.
  - Institutional arrangements
  - Adequacy of the Management Information System
  - Payment of compensation, adequacy of budget, and timeliness of payment
  - Land readjustments
  - Consultation and information dissemination
  - Preparation and adequacy of resettlement sites
  - House construction
  - Provision of employment, its adequacy, and income levels
  - Training
  - Gender impacts
  - Rehabilitation of vulnerable groups
  - Infrastructure repair, relocation, or replacement
  - Enterprise relocation, compensation, and its adequacy
  - Transition allowances
- (viii) Monitor the different stages of the project with specific and need-based framework.
- (ix) Monitor the quality, effectiveness, efficiency, and sustainability of the resettlement and/or TDP efforts.
- (x) Monitor the process undertaken by subborrower for implementing resettlement and/or TDP and develop a framework for process monitoring.
- (xi) Highlight the major problems being faced and limitations of implementing the RP and/or TDP and identify corrective measures needed to implement resettlement and/or the TDP effectively.

## **E. Methodology**

- (i) Study the baseline data on income and expenditure, occupational and livelihood patterns, arrangements for use of common property, social organization, leadership patterns, community organizations, and cultural parameters from the available reports.
- (ii) Identify an appropriate set of indicators for gathering and analyzing information on resettlement and/or TDP impacts, the indicators shall include but not be limited to issues such as payment of compensation, relocation, and resettlement assistance, delivery of entitlement packages, restoration of income, and living

standards, level of satisfaction by the affected people, and the quality of resettlement operations.

- (iii) Review results of internal monitoring and verify claims through random checking at the field level to assess whether resettlement and/or TDP objectives have been generally met. Involve the affected people and community groups in assessing the impact of resettlement for monitoring and evaluation purposes.
- (iv) Conduct both individual and community level impact analysis through the use of formal and informal surveys, key informant interviews, focus group discussions, community public meetings, and in-depth case studies of affected people from various social classes (e.g. scheduled caste, scheduled tribes, other backward castes) to assess the impact of resettlement.
- (v) Identify the strengths and weaknesses of the resettlement and/or TDP objectives and approaches, implementation strategies, including institutional issues, and provides suggestions for improvements in future ADB-funded resettlement planning and implementation.

## **F. Reporting Requirements**

- (i) Monitoring and Evaluation Plan
- (ii) Quarterly reports for large-scale projects reducing over time
- (iii) A baseline survey data report prior to commencement
- (iv) A semi-annual or annual report during resettlement implementation
- (v) Annual evaluation reports for at least two years or until resettlement has been declared successfully completed, if there is no TDP
- (vi) Final M&E Report