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# Strengthening Environmental Assessment Process of Projects in India

Dr. Jyotirmoy Sarma  
Independent Researcher

**Abstract:** *In India, environmental assessment and clearance is mandatory for projects with potential to harm environment. Legislations have defined the environmental assessment process of projects. The process as defined looks reasonable covering all aspects to protect the environment from harmful effects due to development of projects. But, it has been observed in reality that negative environmental impacts from many developed projects are significant and irreversible. Thus, there is a need to strengthen the existing environmental assessment process. Time has come to improve the process to make it equivalent to similar ones of developed countries. This is essential to achieve the goal of sustainable development. In the research paper, the author highlights the strengthening requirements of existing process of environmental assessment of projects in India.*

**Keywords:** *Environmental Impact Assessment, Expert Appraisal Committee, State Environment Impact Assessment Authority, Public Hearing, Strategic Environmental Assessment*

## I. INTRODUCTION AND CONTEXT

Environmental assessment of projects is an essential duty of Government to protect environment in any country. For environmental assessment of projects, environmental impact assessment (EIA) studies are carried out for projects which have potential to damage environment. These studies are reviewed by Government agencies for taking decision on environmental approval of projects. EIA studies are conducted to predict the effect of a proposed project on the environment. EIA is a decision making tool and it also includes comparison of various alternatives of technologies and sites for a project and seeks to select the ones which provides the maximum environmental benefits. Generally, different steps of an EIA process includes i) Screening, which determines whether the proposed project requires an EIA and the level of assessment required. ii) Scoping, which identifies the key issues and impacts to be investigated. iii) Impact analysis, which identifies and predicts the likely environmental and social impacts of the proposed project and evaluates their significance. iv) Suggest mitigation measures by recommending actions to reduce and avoid the potential adverse environmental consequences from project. v) Reporting of impact analysis and mitigation measures in the form of an EIA report, which is submitted to the decision making authority and other stakeholders. vi) Review of EIA report, where adequacy and effectiveness of the EIA report are evaluated for decision-making. vii) Decision-making on whether the project is rejected or approved or needs change. viii) Post monitoring, which starts after the project is commissioned and ensures that the impacts of the project do not exceed the legal standards and implementation of the mitigation measures are done as per those described in the EIA report. In India, the process of environmental assessment of project is defined by legislations. But, there are some concerns about efficacy of the process in protecting the environment. In the research paper, the author highlights the present environmental assessment process followed in India, its weakness and measures to be taken to strengthen the process to protect environment in India.

## II. ENVIRONMENTAL ASSESSMENT PROCESS OF PROJECTS IN INDIA

In India, the EIA Notification, 2006, defines the process and requirements of environmental assessment of projects. This notification states that prior environmental clearance (EC) is mandatory for the development activities listed in its schedule and the same must be obtained before any construction work or land preparation. The notification has categorized projects into category A or B depending on the scale of the project and the nature of its impacts. It has been specified that Category A projects require environmental clearance from Ministry of Environment, Forest and Climate Change (MoEFCC) of Government of India, while Category B projects are reviewed and approved by respective State Governments and Union Territories. For screening, scoping and appraisal of Category A projects by Govt. of India, Expert Appraisal Committee (EAC) are formed, while State Environment Impact Assessment Authorities (SEIAA) are constituted in different states and union territories for similar works for Category B projects. As per the EIA notification 2006, the entire process has four main stages. They are screening, scoping, public hearing and appraisal. Screening is done for Category B projects. The State-level SEIAA categorizes all category B project as either B1 (requiring EIA study) or B2 (no EIA study).

Scoping works are done for both category A and Category B projects by EAC for Govt. of India and SEIAA of State governments and union territories respectively, where terms of reference of EIA studies are prepared and provided to project proponents. After receipt of terms of reference of EIA studies, the project proponents engage consultants for conducting the EIA study and prepare reports. The consultants are accredited consultants of MoEFCC. After conducting EIA study and preparation of EIA report, public hearing is conducting at or near the project sites, where opinions of different stakeholders and likely project affected persons are obtained on the project details. After completion of public hearing, the EIA reports are appraised and decisions are taken on environmental clearance of project. The other salient features of the EIA notification 2006 are as below:

- A. List of Projects Requiring Prior Environmental Clearance: The notification includes a schedule that shows a list of projects needing prior environmental clearance.
- B. Project Appraisal Committees: Expert Appraisal Committee (EAC) will be constituted at Central Level. The EAC will be sector specific and constituted by central government. The composition of the EAC is detailed in Appendix 6 of the notification. State Expert Appraisal Committee (SEAC) will be formed at State and Union Territory Level and will act on the direction of State-level SEIAA. The SEAC will be constituted by central government in consultation with state government. The composition of SEAC is also detailed in Appendix 6 of the notification.
- C. Application for Prior Environmental Clearance: For prior environmental clearance, any project developer will have to give application in prescribed Form 1 and supplementary Form 1A. The forms are available in appendix of the notification.
- D. Generic Structure of EIA Report: It is shown in Appendix 3 of the notification. The prescribed generic structure of EIA report suggests 12 chapters including chapters on project description, description of environment, anticipated environmental impacts and mitigation measures, analysis of alternatives on technology and sites, environmental monitoring program and environmental management plan.
- E. Public Consultation: Public consultations will have two components. One is public hearing at or near the project site, while the second component is written responses from concerned persons. Public hearing will be convened by state pollution control boards or union territory pollution control boards in respective states and union territories.
- F. Procedure for Conducting Public Hearing: It is detailed in Appendix 4 of the notification. It has been specified that district magistrate or his or her representative not below the rank of additional district magistrate will preside over the public hearing. There will be videography of the proceedings and summary of the proceedings will be recorded by representative of state or union territory pollution control boards.
- G. Procedure Prescribed for Appraisal: Appraisal will be based final environmental impact assessment report, proceedings of public hearing, final layout plan and a project feasibility report. Decision will be taken on meeting of EAC or SEAC to be convened for the purpose. Appraisal of project will be completed within 60 days after receipt of all required documents.
- H. Post Environmental Clearance Monitoring: As per the notification, project developers will have to submit half yearly compliance report on terms and conditions of prior environmental clearance.

### III. ENVIRONMENTAL ASSESSMENT IN DEVELOPED COUNTRIES

Environmental assessment process followed in developed countries has some differences than the process followed in India. The general characteristics of environmental assessment process followed in developed countries are as below:

- A. The process of screening is well defined. For instance, in European countries, competent authorities decide whether EIA is required after seeking advice from developer, NGO and statutory organisations. The screening decision is recorded and made public. In Japan, screening decision is made by the authorizing agency with respect to certain criteria. In Canada, federal authority determines whether an environmental assessment is required or not.
- B. Scoping process is comprehensive and involves consultation with all the stakeholders. In many countries like US, Netherlands, Canada and Europe, involvement of the public and their concerns are addressed in the scoping exercise. In developed countries, there is provision of active involvement of all participants including competent authority, government agencies and affected people in early stage of the EIA.
- C. Integrated approach to EIA is followed. All aspects including social and health impacts are taken into account during EIA study. In some developed countries, there is a formal requirement for independent review of the adequacy of the environmental information included in EIA report.



- D. It is mandatory that environmental management plan is developed as part of the EIA report. The EMP outlines specific mitigation measures, environmental monitoring requirements and related institutional arrangements including budget requirements for implementation. EMP is legally binding on the project developer.
- E. Project appraisal decision is made available to the public including the reasons for the decision and a description of the measures that will be required to mitigate adverse environmental effects.

#### IV. SCOPE OF IMPROVEMENT OF ENVIRONMENTAL ASSESSMENT PROCESS IN INDIA

Environmental assessment of projects in India is restricted to project level only. There is neither regional environmental assessment nor strategic environmental assessment of policies, plans and programs of government. It has several shortcomings and therefore environmental assessment process in India needs strengthening. The shortcomings and recommended measures to strengthen the present process of environmental assessment in India are listed below:

- A. The legal and regulatory framework of the EIA system in India is not in harmony with socio-economic conditions of the country. In many occasions, environmental appraisal decisions are negatively affected by social and economic factors.
- B. In India, environmental clearance of projects takes much longer time. This has hampered the pace of economic development in the country. In the existing legislation, no fixed time line is stipulated to complete the entire process of environmental assessment. It has been mentioned that decision on appraisal of projects will be given within 60 days from the receipt of all necessary documents including proceedings of public hearing. Existing legislation in India should be modified to introduce fixed timelines for each of the major activities of the process and also for the entire process.
- C. In India, monitoring of compliance of conditions of environmental approval is not done seriously. Also, monitoring and auditing of impacts is not a part of EIA process. In EIA Notification 2006, there is provision of half yearly submission of compliance report by project developers. But, this limited nature of monitoring system has resulted in non compliance by project developers to conditions of environmental approval. Therefore, existing legislation needs to be modified to include strict provisions of compliance to project approval conditions and their monitoring. Post project monitoring of impacts on environment needs to be made mandatory.
- D. Screening process of category B projects is not based on specific screening criteria applicable to project. Due to this, projects with significant environmental impacts may escape environmental assessment.
- E. Preparation of terms of reference of EIA studies to be followed by EIA consultants is general in nature. Therefore, specific and serious environmental concerns may escape from the prepared terms of reference. At this stage, consultations with public, non-governmental organisations and other concerned authorities should be made mandatory. Accordingly, the existing legislation should be modified.
- F. Inadequate public participation in public hearing is an issue in India. Also, public opinions on the project are not considered at the early stage of the EIA study, which leads to conflict at the later stage of project clearance. Complete or full EIA reports are not available to the public and they are often written in English. During public hearing, adequate public participation and equal participation of both man and women need to be ensured.
- G. During public hearing, many critical public issues raised by local people are not answered by officials of government and developers. As a result, these questions are not included in the EIA report.
- H. At many times, people are not aware of the public hearing. One of the reasons for this is that public hearing notices are advertised only in few newspapers. There is an overall lack of awareness about EIA process amongst people. In cities, most people are not bothered about attending public hearing. The awareness among the local people and educating them about the environment Impact assessment is the need of the hour.
- I. In India, many project developers have casual attitude and not serious about protection of environment.
- J. Insufficient availability data combined with incomplete field investigation is a major problem faced during preparation of EIA report. This results in preparation of EIA report of inadequate quality. As adequate data availability is a major problem during EIA studies, government needs to take measures to give responsibilities to concerned government agencies for continuous generation and storage of environmental data in each district of the country. In such effort, there is big scope for use of geographical information system and other information technologies.
- K. At many times, unskilled and inexperienced study teams are engaged for conducting the surveys for EIA study. In some cases, the EIA study team members do not know the local language. This makes it difficult for people to describe their concerns to the

study team. Government need to develop positive attitude towards EIA consultants by providing adequate financial support so that highly qualified manpower joins the EIA team

- L. Improper quality of EIA report is a concern. At many times, EIA reports are based on single season data. Sometimes, the EIA documents are too technical and difficult to understand for taking decisions. In many occasions, consultants provide biased assessment.
- M. In India, an independent National Environment Regulatory Authority should be established and empower it with all necessary powers.
- N. Strategic Environmental Assessment (SEA) systems are established by many countries of the world. In India, SEA system should be developed up as a sustainability tool. Strategic Environmental Assessment is a process that ensures that significant environmental effects arising from policies, plans and programmes are identified, assessed, mitigated, monitored and communicated to decision-makers. It helps in taking strategic decisions and streamline environmental impact assessment of individual projects. Additionally, regional strategic environmental assessment studies should be taken up to address environmental concerns of different regions of the country.

## V. CONCLUSIONS

In India, despite having clear legislation on environmental assessment of projects, there is environmental degradation due to implementation of some projects. This implies that the existing legislation is partially successful in protecting environment. Degradation of environment is likely to be severe in future, if urgent measures are not taken. Present environmental assessment process of projects in India need strengthening. Some of the strengthening measures are listed above. To protect environment of the country, Government will have to strengthen existing rules and regulations and get them approved by elected law makers.

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