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ENVIRONMENTAL IMPACT ASSESSMENT (EIA) IN INDIA: AN APPRAISAL

By Dibya Jyoti Kalita

1. Introduction

Environmental Impact Assessment (EIA) is the formal process used to predict the environmental consequences (positive or negative) of a plan, policy, program, or project prior to the decision to move forward with the proposed action. Formal impact assessments may be governed by rules of administrative procedure regarding public participation and documentation of decision making, and may be subject to judicial review. An impact assessment may propose measures to adjust impacts to acceptable levels or to investigate new technological solutions (Encyclopedia, 2015). It is anticipatory, participatory, and systematic in nature and relies on multidisciplinary input (Glasson, Therival, & Chadwick, 1994).

U.K. Department of Environment defined EIA as "The term environmental assessment describes the technique and process by which the information about the environmental effects of the project is collected both by the developer and other sources and taken into account by the planning authority informing their judgement whether the development should go ahead."

The International Association for Impact Assessment (IAIA) defines an EIA as "The process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made."

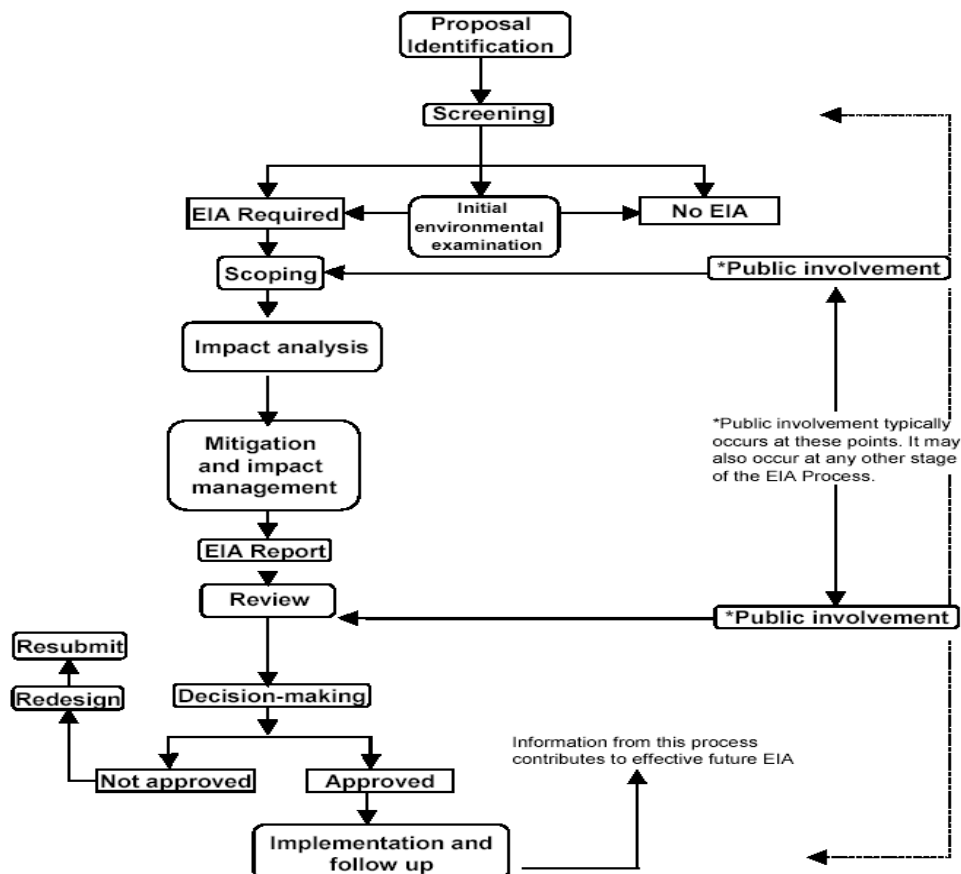
EIAs commenced in the 1960s, as part of increasing environmental awareness. The USA was the first country to enact legislation on EIA. In the United States, EIAs obtained formal status in 1969, with enactment of the National Environmental Policy Act. This was the first time that EIA became the official tool to be used to protect the environment. The United Nations Conference on the Environment in Stockholm in 1972 and subsequent conventions formalized EIA (Ogola, 2007). EIAs have been used increasingly around the world. They have also been recognised in various international instruments.

2. Phases involve in the EIA Process: Some important as well as integral phases of EIA are discussed below:

2.1 Screening: Project screening is the 1st stage of EIA. In this stage list of all projects are made and tried to identify those projects which have considerable environmental impacts and hence required EIA. Guidelines for whether or not an EIA is required are country specific depending on the laws or norms in operation. Legislation often specifies the criteria for screening and full EIA. In many countries there is a readymade list of different projects and investment proposal which comes under preview of EIA.

2.2 Scoping: Consideration of issues and impacts for EIA can be defined as a scoping stage. This stage is very wide and extensive because consultations, discussions, experts' opinions etc. are very important, useful and essential at this stage. It should involve all interested groups such as the proponents and planning or environmental agencies and members of the public. The results of scoping will determine the scope, depth and terms and reference to be addressed within the environmental statement.

Generalised EIA Process Flowchart



Source: (Ogola, 2007)

2.3 Selection of Alternatives: In the scoping stage also selection of alternatives are considered. This include alternative sites or location, technology, commodity and process which are determine on the basis of collecting data and information from various possible sources. The developer considers both environment and economic criteria while choosing the alternatives. So far as environmental consideration is concern there are two types of alternative- No Action Alternative and In Action Alternative. No action alternative refers to environmental considerations if the project did not go ahead. It takes more careful discussion and thinking while in action alternatives are positive indicators for the project.

2.4 Mitigating measures: Mitigation can be defined as a process of removing or reducing the adverse hazardous environmental impact of the project. This

reveals the action taken to prevent, avoid or minimize the actual or potential adverse effect of project. These measures include the abandoning or modifying of a proposal, substitution of technique etc. this should include the various pollution abatement techniques that would be require to reduce pollution to the legal limit. A package programme may be needed for this. It includes tax, fees, tradable pollution permits etc.

2.5 Environmental statement (ES): It is defined by the International Chamber of Commerce as a management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organizations, management and equipment are performing with the aim of helping to safeguard the environment. This is the final stage of an EIA and is now often required by law before a new project can proceed. Most national environmental laws have specified what the content of ES should have. Ideally, the content of an ES should have the following: Executive summary; Policy, legal and administrative framework; Description of the environment; Description of the proposed project in detail; Significant environmental impacts; Identification and analysis of alternatives; Mitigation action/mitigation management plan; Environmental management plan; Monitoring program; Knowledge gaps; Public involvement; List of references; Appendices including Reference documents, photographs, unpublished data, Terms of Reference, Consulting team composition; Notes of public consultation sessions.

The ES is submitted to designate authority for scrutiny before the final decision. The authority, together with technical review panel determines the quality of ES and gives the public further opportunity to comment. Based on the outcome of the review, the designated authority or lending institution will accept, reject or make further modifications to avoid future confrontation. The decision making process should be autonomous so that the outcome of the review is seen as fair enough. The duration of this process is usually set in the EIA legal framework.

2. Present Status of EIA in India

In India, EIAs of development projects were first started in 1977-78 when the Department of Science and Technology took up environmental appraisal of river valley projects. Subsequently, various other projects were brought under the purview of EIA. It was, however, in 1994 when EIA was made mandatory in India under the Environmental Protection Act of 1986.

The Ministry of Environment and Forests (MoEF), Government of India, has prepared environmental guidelines, to help the project proponents to work out an EIA. Guidelines have been prepared to bring out specific information on the environment required for environmental clearance. The agencies, which are primarily responsible for the respective sectors are closely involved in preparing the guidelines. River valley projects, thermal power projects, mining projects and industries, ports and harbours, development of beaches, highway/railway projects are the sectors for which guidelines have already been prepared. These guidelines basically consist of aspects regarding planning and implementation of development projects. Projects where EIA is mandatory and requires clearance from central government as of now, EIA clearance is required for 30 categories of industries.

The project proponent is required to submit an application along with duly filled up questionnaire, EIA and environment management report, public hearing proceeding and the No Objection Certificate (NOC) from the state pollution control board. The MoEF has set up five multidisciplinary expert committees in the areas of industry, thermal power, river valley, mining and infrastructure and miscellaneous project to evaluate the environmental impact of proposed project. The committee evaluate the environmental impacts of the proposed project and wherever necessary, site visits and independent assessment of environmental aspects are also undertaken. Based on such examination the committee make recommendation for the approval or rejection of the proposal which are then processed in the ministry for approval or rejection. In case of site specific project, such as mining, river valley, ports and harbours etc the project proponent has to obtain sit clearance before applying for environmental clearance of the project.

In India, public consultation have been made compulsory component of EIA by an amendment dated April 10, 1997 to the EIA notification 1994. The State Pollution Control Board and concern district collectors are responsible for the public consultation process through duly constituted public hearing panel.

The members of a public hearing panel are: (i) Representative of State Pollution Control Board (ii) District Collector or his nominee (iii) Representative of State Government dealing with the subject of Power (iv) Representative of Department of State Government dealing with Environment (v) Not more than three representatives of the local bodies such as Municipalities or Panchayat (vi) Not more than three senior citizens of the area nominated by the District Collector.

3. Issues involve in EIA process

The EIA experience in India indicates that the lack of timely availability of reliable and authentic environmental data has been a major bottle neck in achieving the full benefits of EIA. The environment being a multi-disciplinary subject, a multitude of agencies is involved in collection of environmental data. However, no single organization in India tracks available data from these agencies and make it available in one place in a form required by environmental impact assessment practitioners. Further, environmental data is not available in enhanced forms that improve the quality of the EIA. This makes it harder and more time-consuming to generate EIAs and receive timely environmental clearances from regulators (Encyclopedia, 2015).

In some instances where public participation is required by EIA legislation, such participation could be limited in practice. For example, the law in India required that a public hearing is conducted; however, NGOs often considered the public hearing as staged process that appeared to involve citizens when the decision had already been made (Naber, 2012).

When the EIA is linked to the licensing process, it may become a tool for rent-seeking and could be a source of illegal influence on the responsible authorities.

For example, in Bangladesh, the Environmental Conservation Act (1995) required environmental clearance for development projects, but it also reserved the right to the government to waive the clearance requirement. This provided the incentive for project proponents to exert influence to avoid this requirement. Because public consultation and public participation were limited, these two forces were precluded from countering the illegal influence, and they were blocked from providing an incentive for the effective identification and mitigation of potential environmental impacts (WB, 2006).

4. Conclusion

The EIA process is an interdisciplinary and multi-step procedure to ensure that environmental considerations are included in decisions regarding projects that may impact the environment. Simply defined, it is a formal process used to predict the environmental consequences of any developmental project. From the above study it is clear that before implementation of a particular project, which has potential threat to environment as well as to human life, a proper scrutiny has been made. Thus, it ensures that the potential problems are foreseen and addressed at an early stage at/ in the project planning and designing.

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