



ENVIRONMENTAL IMPACT ASSESSMENT

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Abstract

Environmental Impact Assessment is tool for predicting and evaluating an action impact on Environment, which result of taking decision for reducing pollution. It is used for sustainable development of environment. The development of EIA started with National Environmental Pollicy Act 1969 (NEPA). EIA is the integral part of clearance of project. The EIA is modified by up to date 14th September 2009 which is based on Environmental Protection Act 1986. As per the notification expansion and modernization of any industry, as the setup of new project listed in schedule I & II to the 1992 notification shall not be obtaining environmental clearance from Central Government and the State Government. Under the EPA rules all projects and activities are broadly divided two categories A & B based on the ability impact on human health and the natural and human made resources. Category A includes industry, mining and large infrastructure projects, category B covers all other building and other construction projects.

Keywords: Sustainable, EIA, Pollution.

Introduction:- This paper is specially attention upon Environmental Impact Assessment (EIA), resource management and the contingency of these notations to native people. People participation of native people within established Environmental Impact Assessment. Human development has generally been parasitic on the environment because there is fundamental interdependence between environment, the physical biological and social surrounding and their interplay, that sustain all life forms. Over production, over interpretation of resources,

nuclear radiations, industrial wastes, industrial accidents, relentless exploitation of forests, unscrupulous quarrying, pollution of river and noise pollution are the contribution factors for environmental degradation. Global warming, zone depletion and pollution are some of the negative effects of existing development strategy.

Environmental laws are basis of Environmental Protection, but after many decades it is steel suffering in most of the world due to poor execution. India, like most developing countries is faced with challenge of developing itself rapidly, while at the same time preserving & protecting its environment. As per the supreme legislative council passed the first Indian forest act in 1865. The forest act of 1927 consolidated the pre existing laws remained in force till 1980.

Environmental Impact Assessment (EIA) as usually called can be considered as the appraisal of the probable impact that a proposed project may have on natural environmental. EIA is implemented prior to commence any project or major activity in order to insure that no short or long term harm will be faced by the environment.

The EIA process was brought into play with the sole intension of classify the favorable and unfavorable impacts of development projects on environment, taking into consideration, ecological, communal, educational and aesthetic considerations. All points are consider for viability of the project and decision made for rejection or granted environmental clearance. After i explore possible impact, the EIA compacts to make light of the impacts and proponent means to perk up the project revetment.

What is EIA?

It is defined as the systematic identification and evaluation of the potential impacts (effects) of proposed projects, plans, programs or legislative actions relative to the physical, chemical, biological, cultural and socio-economic components of the environmental.

The role of EIA formally recognized at the Earth summit held at Rio conference in 1992. Principle 17 of the Rio declaration states that "EIA as a national instrument shall be undertaken for the proposed activities that are likely to have significant adverse impact on the environment and subject to a decision of a decision of a competent national authorities". In India many of the development projects till as recently as the 1980s were implemented with very slight. The environmental issues began receiving attention when a national committee on environmental planning and coordination was set-up under the 4th five years plan. (1969-1978)

A major legislative measures for the purpose of environmental clearance was in 1994 when specific notification was under section 3 and rule 5 of the environmental protection Act. 1986 called the Environment Impact Assessment Notification.

EIA is an important procedure for the insure that the likely effects of new development on the environment are fully unequivocal and taken into account before the development is allowed to go ahead.

When EIA is needed?

The two fundamental approaches for determining whether or not to conduct a comprehensive environment impact study for a proposed action are the use of the policy delineations based on project type and size will be guided by the Ministry of Environmental and Forest (MOEF), Government of India.

Environmental Evaluations

An evaluation of the environmental impacts of human activities for the purpose of comparing alternatives generally involves the three following steps.

Step 1. Definition of evaluation criteria

- i. Identification of areas of protection, and the compatible categories of environmental impact end points related to those protection areas.
- ii. Choice of impact category end points relevant to the comparison, and

possible midpoints or target points used as a proxy for the true end points.

- iii. Choice of criteria or approach a score or a ranking for the impact category.

Step 2: System definition and inventory.

- iv. Choice of the system limit of the process system relevant to the comparison;
- v. Inventory of relevant environmental interventions caused by this system.

Step 3 : Selection of alternatives.

- vi. Selection of relevant alternatives.
- vii. Integrated judgment of remaining alternatives.
- viii. Sensitivity analysis.
- ix. Final choice of the alternatives

This general evaluation scheme is divided into three parts. Step 1 involves defining how and by what yard stick alternatives should be judged. In effect,

the "yardsticks" for scoring alternatives are chosen in this stage. In step 2 the process trees that have to be included in the system are analyzed, and an inventory is made of the relevant environmental interventions identified in step 1. In step 3, the impacts of the relevant processes are compared. Step 2 has also been termed the "system definition step", while step 1 represents the "impact assessment step"

The Term EIA- EIA is an orderly security of all environmental impacts crapping up out of any developmental activity.

Review of the EIA process: - the statements should be provided relevant studies to be included in the appendix as per follows.

1. Visualization of the project and visual impact assessment.
2. Survey studies of biological resources in the locality.
3. Technical reports on air, soil and water quality.
4. Hydrodynamic modeling studies of mixing dilution and dispersal of reject streams.
5. Laboratory test reports on toxicity, abiotic and biotic degradation of substance.
6. Survey regarding human health, socioeconomic & culture resources.

In order study either its profitable or harmful effect, evaluation of any project through EIA has become a must. Indian construction industry is rapidly growing at a rate of 9.2% as against the world average of 5.5%. undertaking EIA for

construction industry and improving site management can reduce environmental impacts both on and off site. In order to appreciate the risks posed by construction activities and taking steps to reduce occurrence can help reduce costs and improve business reputation. The present article reviews the various steps involved in EIA, environmental effects of construction industry and EIA with relation to construction industry. Environmental Impact Assessment of EIA as usually called can be considered as the assessment of the probable impact that a proposed project may have on the natural environment. It can either positive or negative. EIA is implemented prior to undertaking any project or major activity in order to ensure that no short or long term harm will be faced by the environment. Any development venture requires not only the study as to why such a project is needed. What are the fiscal costs and gains involved but most emphatically. It entails extensive and in depth evaluation of the outcome of an anticipated development on the milieu. The EIA process was brought into play with the sole intention of categorizing the impending favorable and unfavorable impacts of developmental projects on the environment, taking into consideration ecological, communal, education and aesthetic consideration.

What do you understand by the term EIA?

EIA is an orderly scrutiny of all environmental impacts cropping up out of any developmental activity. Depending on the form and enormity of impacts, alleviation measures are recommended to maintain the overall environmental eminence integral. Efforts are also made to additionally augment socioeconomic and environmental aesthetics of the surrounding area.

Documentation of EIA in India: India's familiarity with Environmental Impact Assessment commenced more than 20 years back. It went underway in the year 1976-77 when the Planning commission solicited the Department of Science and Technology to scrutinize the river – valley projects from an ecological point of view, which was subsequently extended to include those projects, which requisite the sanction of the Public Investment Board. Until 1994, environmental approval from the Central Government was an executive decision and lacked governmental support.

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Expansion of modernization of every activity and for setting up new projects programmed in Schedule 1 of the notification. Ever since there have been 12 amendments made in the EIA notification of 1994.

In September 2006. The MoEF passed a new EIA legislation making it mandatory for various projects such as mining, thermal power plants, river vally, infrastructure ets. To get environmental clearance. Conversely, as against the EIA Notification of 1994, this new legislation placed the resposibility of clearing projects on the state government depending on the competence of the project. Certain activities acceptable under the Coastal Regulation Zone Act. 1991also call for analogous clearance. Furthermore, benefactor agencies such as World Bank and ADB. Which are functional in India, encompass a different set of requirements for giving environmental clearance to projects funded by them.

EIA Beneficiaries: EIA is a universally accepted observable fact for setting off impacts of a project at its preliminary phase and can be valuable to a multitude of industries, utilities, infrastructure projects, institution, technology transfer projects policy makers etc. it capitulate superlative results when made at preparatory stage. Nevertheless there have been few cases when a proponent does |EIA for a full fledged running plant and moreover thinks about post closure.

Types of EIA

Different types of Impact Assessment are as listed below, though they are not limited to: Climate Impact Assessment, Demographic Impact Assessment, Economic and Fiscal Impact Assessment, Environmental Auditing, Environmental Impact Assessment, Environmental Management + Systems, Health Impact Assessment, Project Evaluation, Public Consultation, Public Participation, Risk Assessment, Social Impact Assessment, Strategic Impact Assessment, Technology Assessments.

The Complete Process

The course of action in an EIA depends on the prerequisites of the station or patron, though, as a rule EIA processes have a regular constitution and the implementation of these main steps wherein each step is equally significant in influencing the overall performance of the project. Characteristically the EIA progression

commences with screening to certify that the time and reserves are concentrated at the proposals which matter environmentally and concludes with some kind of follow up on the execution of the verdicts and actions taken as an outcome of an EIA report. The eight steps implicated in EIA process are:

Screening : This first stage of EIA establishes whether the anticipated project, necessitates an EIA and if it does, then the intensity of assessment, required.

Scoping : This step recognizes the key issues and impacts which further needs to be investigated and also delineates the periphery and time limit of the study.

Impact Analysis: The third stage of EIA identifies and envisages the likely ecological and social impact of the anticipated project and weight upon the implication.

Mitigation : Mitigation advocates the actions to lesson and steer clear of the possible adverse environmental upshots of development activities.

Reporting : The end result of EIA is accounted in a form of a report to the decision – making body and other concerned parties. **Review of EIA :** It reviews the sufficiency and efficacy of the EIA report and makes available the information essential for decision –making.

Decision-making : It decides whether the project is cast off, accepted or needs additional alterations.

Post Monitoring : This final step of EIA comes into play once the project is bespoke. It tries to make certain that the impacts of the project does not go beyond the officially permitted standards and execution of the mitigation measures are done in the manner as stated in the EIA report.

Conclusion:

The environmental Impact assessment study should lead to development decision informed by knowledge of the range of potential environment and social impact direct, indirect, interactive and cumulative.

Combine effect of EIA can be

- 1) Reduce energy use and neutralize green house gas emissions.
- 2) Reduce and recycle the water use
- 3) Reduce material waste by continually reducing resource by applying the waste hierarchy i.e. reduce reuse, recycle and disposal.
- 4) Maximum Sustainable transport by reducing fleet vehicle emission.

5) Maximum resilience by continually reducing by residual pollution risk below 20% base line.

6) Establishing the sustainable landscape by balancing vegetation losses with new assets through new protection zones and planning.

7) Faster culture of sustainability by continually increasing using community engagement in campus sustainability initiatives and event and information comparing to rise public interest sustainability.

8) Integrated environmental management issue into research and teaching by continually increasing.

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