



## Environmental Impact Assessment



**Introduction**

- Environmental Impact Assessment (EIA) - process to evaluate the likely environmental impacts of a proposed project or development, considering inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse
- EIA (in India) backed by the **Environment Protection Act in 1986**, containing provisions on EIA methodology and process

**The EIA process**

- Screening:** The project plan is screened for scale of investment, location and type of development and if the project needs statutory clearance
- Scoping:** The project's potential impacts, zone of impacts, mitigation possibilities and need for monitoring
- Collection of baseline data:** baseline-environmental status of study area
- Impact prediction:** Positive and negative, reversible and irreversible and temporary and permanent impacts
- Mitigation measures and EIA report:** should include the actions and steps for preventing, minimizing or by passing the impacts or else the level of compensation for probable environmental damage or loss
- Public hearing:** On completion of the EIA report, public and environmental groups living close to project site may be informed and consulted
- Decision making:** Impact Assessment Authority, experts, the project-in-charge along with consultant to take the final decision, keeping in mind EIA and EMP (Environment Management Plan)
- Monitoring and implementation of environmental management plan:** The various phases of implementation of the project are monitored
- Assessment of Alternatives, Delineation of Mitigation Measures and Environmental Impact Assessment Report**
- Risk assessment:** Inventory analysis and hazard probability and index also form part of EIA procedures

**Steps in preparation of EIA Report**

- Collection of baseline data from primary and secondary sources
- Prediction of impacts based on past experience and mathematical modelling
- Evolution of impacts versus evaluation of net cost benefit
- Preparation of environmental management plans to reduce the impacts to the minimum
- Quantitative estimation of financial cost of monitoring plan and the mitigation measures

**Stakeholders in the EIA Process**

- There are six main players:
- Those who propose the project
  - The environmental consultant who prepare EIA on behalf of project proponent
  - Pollution Control Board (State or National)
  - Public has the right to express their opinion
  - The Impact Assessment Agency
  - Regional centre of the Ministry of Environment and Forest

**Salient Features of 2006 Amendments to EIA Notification**

- Decentralized the environmental clearance projects by categorizing the developmental projects in two categories:
  - Category A (national level appraisal)
  - Category B (state level appraisal)
- Category A projects require mandatory environmental clearance, don't undergo the screening process
- Category B projects undergo screening process. Classified into two types:
  - Category B1 projects (Mandatorily requires EIA)
  - Category B2 projects (Do not require EIA)
- After 2006 Amendment the EIA cycle comprises of four stages:
  - Screening
  - Scoping
  - Public hearing
  - Appraisal

**Importance of EIA**

- Links environment with development for environmentally safe and sustainable development
- Provides cost effective method to eliminate or minimize the adverse impact of developmental projects
- Enables the decision makers to analyse the effect of developmental activities on the environment well before the developmental project is implemented
- Encourages the adaptation of mitigation strategies in the developmental plan
- Makes sure that:
  - developmental plan is environmentally sound
  - within the limits of the capacity of assimilation and regeneration of the ecosystem

**Shortcomings of EIA Process**

- Limited Applicability; exemptions given to several types of projects
- Lack of necessary expertise in conducting EIA studies
- Various projects with significant environmental and social impacts excluded from the mandatory public hearing process
- The data collectors pay no respect to the indigenous knowledge of local people
- Lack of Credibility; several cases of fraudulent EIA studies
- Opacity and confidentiality associated with certain strategic industries
  - e.g. - Nuclear projects is another area of concern regarding EIA studies

**Way Forward**

- Need for an independent EIA authority
- Creation of a centralized baseline data bank
- Dissemination of all information related to projects from notification to clearance to local communities and the general public
- Projects likely to have a significant alteration of ecosystems need to
  - go through the process of environmental clearance, without exception
- No ind. developmental activity to be permitted in ecologically sensitive areas
- Public hearings need to be applicable to all hitherto exempt categories of projects having environmental impacts
- EIA's focus should shift from utiliz'n and exploit'n to conserv'n of natural resources
- The EIA, itself.
  - Needs to build within it, an automatic withdrawal of clearance (if the same is being violated)
  - introduce more stringent punishment for non-compliance
- NGOs, civil society groups and local communities -> build their capacities to use the EIA notification towards better decision making on projects



PDF Refernece URL: <https://www.drishtias.com/printpdf/environmental-impact-assessment-mind-map>

