



Environmental Impact Assessment- Objectives and Procedure

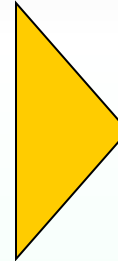
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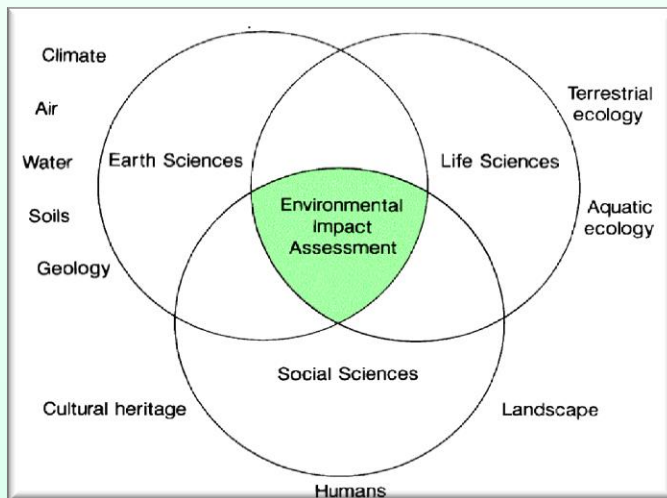
Understanding EIA

A formal process for identifying:

- likely impacts of project activities on the **ENVIRONMENT**, and on human health and welfare.
- means and measures to mitigate & monitor these impacts



Environment is broadly interpreted: physical, biological, and social.



In EIA, the term “impacts” is used instead of “effects of activities.”

What is an impact?



What is an Impact?

The impact of an activity is a deviation (a change) from the **baseline situation** that is caused by the activity.

The **baseline situation** is the existing environmental situation or condition in the absence of the activity.

The **baseline situation** is a key concept in EIA.

More...



The Baseline Situation

In characterizing the baseline situation, many **environmental components** **MAY** be of interest

The components of interest are those that are likely to be affected by project or activity

Air/Water *Quantity, quality, reliability, accessibility*

Soils *Erosion, crop productivity, fallow periods, salinity, nutrient concentrations*

Fauna *Populations, habitat*

Env Health *Disease vectors, pathogens*

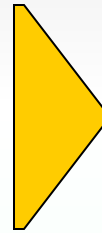
Flora *Composition and density of natural vegetation, productivity, key species*

Special ecosystems *Key species*

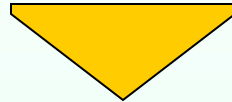


Types of Impact & Their Attributes

The EIA process is concerned with **all types of impacts** and may describe them in a number of ways



Direct & indirect impacts
Short-term & long-term impacts
Adverse & beneficial impacts
Cumulative impacts



- * Intensity
- * Direction
- * Spatial extent
- * Duration
- * Frequency
- * Reversibility
- * Probability



Environmental Impact Assessment

The International Association for Impact Assessment (IAIA) defines

an environmental impact assessment (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."

In this context, the term 'environmental impact assessment' (EIA) is usually used when applied to concrete projects and the term 'strategic environmental assessment' applies to policies, plans and programmes"



EIA Objectives

Consider environmental factors in the decision-making process of any project

Identify potential environmental, social and economic impacts of proposed activities

Take steps at initial stages to minimize adverse environmental impacts

Promote sustainable development through environmental management plan by either alternatives or mitigation measures.

Public participation in the decision making of the establishment of proposed activity



EIA Procedure

- **Screening:** The project plan is screened for scale of investment, location and type of development and if the project needs statutory clearance.
- **Scoping:** This stage identifies the key issues and impacts that should be further investigated. This stage also defines the boundary and time limit of the study.
- **Collection of baseline data:** This involves the present state of the environment (air, water, soil, biodiversity, energy etc.) before implementation of the project.
- **Impact analysis and prediction:** Based on the baseline data and scoping, the potentially significant impacts (adverse and beneficial) on environment of the area are identified and analyzed for project during the development phase and after completion. The magnitude of the identified impacts is predicted by comparing the environmental conditions of base line data with the expected conditions after project implementation.



EIA Procedure contd...

- **Mitigation and Management of Environmental impacts:** This involves the proposal of different measures to be taken to reduce, manage, remediate or compensate for adverse impacts.
- **Public hearing/consultation:** The purpose of public participation is to inform the **public** about the proposed project and its impacts on the local area. The public views or objections are integral part of the decision making process.
- **Reporting:** This stage presents the result of EIA in a form of a report to the decision-making body and other interested parties.
- **Decision making:** Impact Assessment Authority along take the final decision, keeping in mind EIA and EMP (Environment Management Plan). It decides whether the project is rejected, approved or needs further change.
- **Post decision monitoring:** This stage comes into play once the project is commissioned. It checks to ensure that the impacts of the project do not exceed the legal standards and implementation of the mitigation measures are in the manner as described in the EIA report.



Summary

EIA links environment with development for environmentally safe and sustainable development.

EIA provides a cost effective method to eliminate or minimize the adverse impact of developmental projects.

EIA enables the decision makers to analyse the effect of developmental activities on the environment well before the developmental project is implemented.

EIA encourages the adaptation of mitigation strategies in the developmental plan.

EIA makes sure that the developmental plan is environmentally sound and within the limits of the capacity of assimilation and regeneration of the ecosystem.