

ENVIRONMENTAL IMPACT ASSESSMENT

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ENVIRONMENTAL CONDITION

CONSTITUTIONAL RIGHTS

PUBLIC INTERACTION- POLICIES AND LAW

ENVIRONMENTAL IMPACT ASSESSMENT

DEFINITION

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 total environment.

Goal

The goals for Environmental Impact Assessment need to be achieved in order to:

- Fulfil the individual responsibility to preserve and protect natural environment for future generations.
- Assume for all citizens safe, beautiful, productive and aesthetically and pleasing surroundings.
- Make beneficial uses of the natural environment without deteriorating and degradation risk to health or safety or other undesirable consequences.
- Presence important historical, cultural, and natural aspects of our National heritage and maintain, where possible.
- Maintain high standards of living by balancing between population and resource use.
- Enhance the quality of renewable resources.

EIA- Statement

Environmental Impact Assessment requires statement covering the following five major areas:

- The environmental impact of the proposed action.
- Any adverse environmental effects that can not be avoided. Then should the proposal be implemented?
- Alterations to the proposed action.
- The relationship between the local short-term uses of the human environment and the maintenance and enhancement of the long-term productivity.
- Any irreversible and irretrievable commitment of resources that would be involved in the proposed action should be implemented.

EIA- SCOPE

Environmental Impact Assessment is required to:

- Determine the extent of mitigation planning and mitigation identification responsibility which an agency should undertake prior to issuance of an EIS.
- Develop methodology or procedure for systematically addressing cumulative impacts of proposed actions.
- Establish a usable methodology or procedure for conducting a reasonable foreseeability analysis at the consequences of a proposed action.
- Assess the impact by follow-up action of Environmental Auditing to document experienced efforts and compare such Impacts/ efforts to preprojected predicted ones.

EIA- APPROACH

- A description of the type of project and how it functions or operates in a technical context.
- The proposed location for the project and reasons / choice for such location.
- The time period required for project construction.
- The potential environmental requirements or outputs (stresses) from the project during its operational phase, including:-
 - Land requirement
 - Air pollution emissions
 - Water usage and water pollutant emissions, and
 - Waste generation and disposal needs.

EIA- ASSESSMENT COMPONENTS

1) Air



Air quality

Wind direction / speed

Precipitation / humidity

Temperature

Noise

2) Land

Land capability
Soil resources / structure
Mineral resources
Tectonic activity
Unique features



3) Water

Surface water

Ground water regime

Hydrologic balance

Drainage / channel pattern

Flooding

Sedimentation





4) Flora and fauna

Environmentally sensitive area

**Wetlands, marshes, wild lands,
grasslands etc.**

Species inventory

Productivity

Biogeochemical / nutrient cycle.

5) Human

**Social infrastructure / institutions
Cultural characteristics
Physiological and Psychological
well-being
Economic resources.**

DETERMINE IMPACT SIGNIFICANT

The fundamental approach for EIA is to conduct study.

The preliminary study yields an EIA, with the fundamental issue being to determine whether the anticipated impacts of the action would have a significant effect on the quality of the human environment.

Impacts resulting from proposed actions can be placed in one or more of the following categories:

- Beneficial or detrimental.
- Naturally reversible or irreversible.
- Responsible via management – practices or irreparable.
- Short term or long ter.
- Temporary or continuous.
- Occurring during the construction phase or the operational phase.
- Local, regional, national or global.
- Accidental or planned.
- Direct (primary) or indirect (secondary).
- Cumulative or single.

EFFECTS OR IMPACTS:

Direct Effects

Direct effects are caused by the action and occur at the same time or place.

Indirect Effects

Indirect effects are caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable.

Indirect effects include

Growth including impacts and other effects related to induced changes in the pattern of:

- Land use
- Population density
- Growth rate
- Related effects on-

Air

Water

Natural systems

Ecosystems



Effects on Ecosystem

Effects may be ecological, aesthetic, historic, cultural, economic, social or healthy related whether direct, indirect or cumulative

EAI- PURPOSE

The purpose of Environmental Impact Assessment is to enhance projects by helping prevent, minimize, mitigate or compensate for any adverse environmental and social impacts. Development institutions and many developing Countries have introduced EIA requirements and regulations into their development activities.

EIA- PROCESSES

EIA processes involve the major five steps:

- Screening**
- Scoping and Development of Terms of reference**
- Preparing the Environmental Assessment Report**
- EA review and Project Appraisal**
- Project Implementation**

Stage -1. A. SCREENING

The project is assessed by the team expert to determine the nature and magnitude of the proposed projects potential environmental and social impacts.

This falls into three categories:

Category A

A full EIA is required Category A project are those expected to have adverse impacts that may be sensitive, irreversible and diverse, with attributes such as direct Pollutant Discharges large enough to cause degradation of air, water, or soil, physical disturbance of site or surroundings and natural resources.



Category B - Although a full EIA is not required, some environmental analysis is necessary. This type of projects have impacts that are less significant..., not as sensitive, numerous, major or diverse. The Category B projects entail rehabilitation, maintenance or upgradation rather than new constitution.

Category C- No EIA or other environmental analysis is required. This category projects fall on education, family planning, health and human resource development. This category projects entail negligible or minimal direct disturbance to physical setting.

Stage -2. B. SCOPING AND DEVELOPMENT OF TERMS OF REFERENCE

At this stage it is essential to identify more precisely the likely environmental impacts. The information about the project and its likely environmental effects is disseminated to local affected communities and Non-Governmental organizations.

Stage -3. C. PREPARATION OF ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Category A – Project - A full scale Environmental Impact Assessment is normally undertake, resulting in EIA report.

Category B – Project- requires limited EIA, differ from case to case.

Category C – Project – No EIA is required.

The main components of a full EIA reports includes:

- **Executive Summary**
- **Policy, legal and administrative full work**
- **Project description**
- **Baseline data**
- **Impact Assessment**
- **Analysis of alternatives**
- **Initiation or Management Plan**
- **Environmental monitoring Plan**
- **Public consultation**

Stage -4. D. EA REVIEW AND PROJECT APPRAISAL:

Once the draft EIA report is complete, the project team is authorized to proceed appraisal of the project. On the appraisal mission, the project authority review the EIA's procedural and substantive elements with the proper authority, resolve any outstanding issues, assess the adequacy of the institutions for environmental management in the light of the EIA's findings, ensure that the mitigation plan is adequately budgeted.

Stage -5. E. PROJECT IMPLEMENTATION

The project authority is responsible for implementation of the project according to the agreements derived from the EIA processes. The environmental experts supervise the implementation of the project.

GOVERNMENT ACTIONS

India has a vast Governmental structure with a proliferation of Government Institution at both the Central and State levels. Ministry of Environmental and Forests (MOEF) develop State Environmental Agencies to:

- Candidates state activities, officers and other authorities under any law relating to environmental protection.
- Plans and monitors nationwide pollution prevention, control and abatement programs.
- Prescribes emission standards.
- Establishes environmental standards.
- Establishes pollution restrictions for industries operations and processes, and
- Prescribes procedures and safeguards for handling hazardous substances.

MOEF also administers a National Award Program, which recognizes environmental efforts of industry and other sectors.

The national Environmental Action Plan prepared in December, 1993 by MOEF presents India's environmental priorities and illustrates the rank and importance of industrial pollution, including the following:

✓ **Afforestation**

✓ **Wasteland development**

✓ **Conservation of soil and moisture**

✓ **Ensuring unpolluted water sources**

✓ **Conservation of and sustainable development of biodiversity in selected ecosystems**

✓ **Control of Industrial and related pollution with an accent on the reduction and / or management of wastes, particularly hazardous wastes**

✓ **Improving access to clear technologies**

✓ **Tackling urban environmental issues**

✓ **Strengthening scientific understanding of environmental issues**

✓ **Developing an alternative energy plan Environmental Impact Assessment.**

ENVIRONMENTAL AWARENESS AND PUBLIC INVOLVEMENT

In India, environmental issues are regular but not obviously prominent parts of media attention.

The government and NGO's engage regularly in public awareness activities.

Opportunities to increase public environmental awareness and effective participation appear more likely through television and radio than through the print media, which is limited in the breadth of its effect due to limited literacy in the country.

Thank you

Save Environment Save Life