



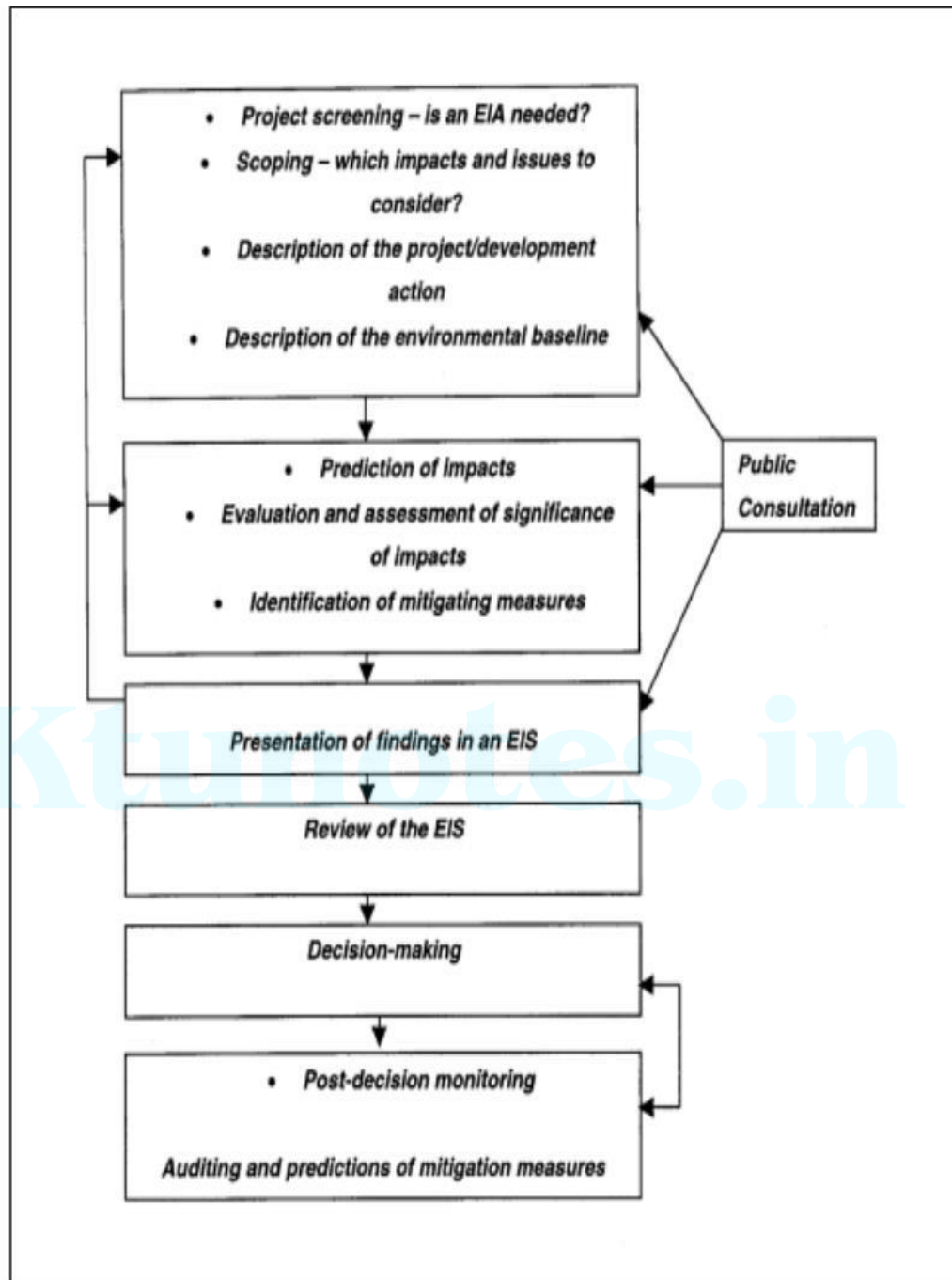
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1. Describe the various steps in EIA process with the help of a flow chart (20)



- ✧ EIA represents a systematic process that examines the environmental consequences of the development actions ,in advance.
- ✧ The EIA process involves a number of steps, some of which are listed below:

- i. **Project screening :** screening often results in a categorization of the project and from this a decision is made on whether or not a full EIA is to be carried out.
- ii. **Scoping:** is the process of determining which are the most critical issues to study and will involve community participation to some degree. It is at this early stage that EIA can most strongly influence the outline proposal.
- iii. **Consideration of alternatives:** This seeks to ensure that the proponent has considered other feasible approaches, including alternative project locations, scales, processes, layouts, operating condition and the no-action option.
- iv. **Description of the project /development action:** This step seeks to clarify the purpose and rationale of the project and understand its various characteristics, including the stages of development, location and processes.
- v. **Description of the environmental baseline:** This includes the establishment of both the present and future state of the environment, in the absence of the project, taking into account the changes resulting from natural events and from other human activities.
- vi. **Identification of key impacts:** This brings together the previous steps with a view to ensuring that all potentially significant environmental impacts are identified and taken into account in the process.
- vii. **The prediction of impacts:** This step aims to identify the likely is implemented in comparison with the situation when the project is not carried out.
- viii. **Evaluation and assessment of significance:** This seeks to assess the relative significance of the predicted impacts to allow a focus on key adverse

impacts. Formal definition of significance is the product of consequence and likelihood as $\text{Significance} = \text{consequence} \times \text{Likelihood}$

- ix. **Mitigation:** This involves the introduction of measures to avoid, reduce, remedy or compensate for any significant adverse impacts.
- x. **Public consultation and participation:** This aims to assure the quality, comprehensiveness and effectiveness of the EIA, as well as to ensure that the public's views are adequately taken into consideration in the decision-making process.
- xi. **EIS presentation:** This is a vital step in the process. If done badly, much good work in the EIA may be negated.
- xii. **Review:** This involves a systematic appraisal of the quality of the EIS, as a contribution to the decision-making process.
- xiii. **Decision making:** At this stage, decisions are made by the relevant authority of the EIS together with other material considerations as to whether to accept, defer or reject the project
- xiv. **Post-decision monitoring:** This involves the recording of outcomes associated with development impacts, after the decision to proceed with the project. It can contribute to effective project management.
- xv. **Auditing:** This follows monitoring and involves comparing actual outcomes with predicted outcomes, and can be used to assess the quality of predictions and the effectiveness of mitigation. It provides a vital step in the EIA learning process

2. What are the key elements in EIA as per Government of India notification? (10)

✧ The Key Elements in 2006 EIA (Govt. of India) Notification are:

- The Ministry of Environment and Forests (MoEF) uses Environmental Impact Assessment Notification 2006 as a major tool for minimizing the adverse impact of rapid industrialization on environment and for reversing those trends which may lead to climate change in long run
- EIA 2006 was issued on 14th September 2006, in supersession of EIA 1994, except in respect of things done or omitted to be done before such supersession.
- The Notification is issued under relevant provisions of the Environment (Protection) Act, 1986.
- Environmental clearance is required in respect of all new projects or activities listed in the Schedule to the 2006 notification and their expansion and modernization, including any change in product

✧ The EIA process in India is made up of the following phases:

- Screening.
- Scoping and consideration of alternatives.
- Baseline data collection.
- Impact prediction.
- Assessment of alternatives,
- Delineation of mitigation measures and environmental impact statement.
- Public hearing.
- Environment management plan (EMP).

- Decision-making.
- Monitoring the clearance conditions.

3. Give the details of environmental clearance process in India with time evolved in each step (10)

- ✧ The environmental clearance process covers aspects like screening, scoping and evaluation of the upcoming project.
- ✧ The main purpose is to assess impact of the planned project on the environment and people and to try to minimise the same.
- ✧ Environmental Clearance on the basis of environmental impact assessment is mandatory for various development projects in most parts of the world today.
- ✧ The process consists of following steps:

1.Screening

- ✧ The process begins with identifying the location of proposed unit by the entrepreneur.
- ✧ If the proposed location of unit does not agree with the existing prescribed guidelines, the entrepreneur has to identify some other alternative location for his / her unit.

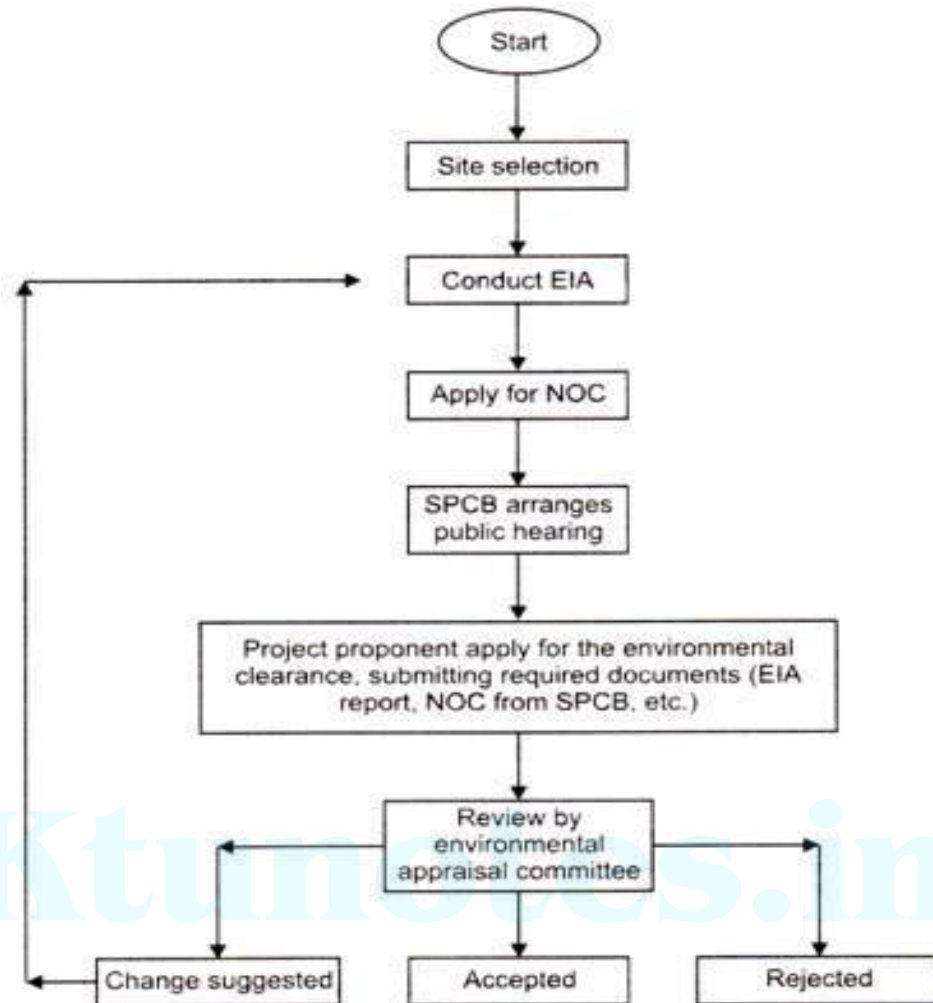
2.Scoping

- ✧ The entrepreneur then assesses if the proposed unit falls under the purview of environmental clearance as per the Government of India's notification issued on 27th January 1994.

- ✧ If it is mentioned in schedule of the notification, the entrepreneur is required to conduct an Environmental Impact Assessment (EIA) study either directly or through a consultant.
- ✧ The process to be followed for assessing environmental impact includes the following activities:
 - a) The promoter of the projects are required to provide all relevant and required information as indicated in the guidelines along with the EIA statement.
 - b) After the preliminary scrutiny by the Ministry of Environment and Forest (MoEF), the Appraisal Committee evaluates the impact on environment and accordingly makes its recommendations for approval, rejection or modifications in the project.
 - c) The next mandatory step involved in seeking environmental clearance for the proposed unit is public hearing. Public hearing provides a legal space for people of an area to come face-to-face with the project proponent and the government and express their concerns about the impact of proposed unit on them.

3. Evaluation

- ✧ The final step involved in the process of environmental clearance is environmental evaluation.
- ✧ The documents submitted by an entrepreneur are first scrutinized by a multi-disciplinary staff functioning in the Ministry of Environment and Forests who may also undertake site-visits wherever required, interact with the entrepreneur and hold consultations with experts on specific issues as and when necessary



4. Explain history and development of EIA in different countries (6)

- ✧ Environmental Impact Assessment (EIA) is a process of evaluating the likely impacts of a proposed project or development in the environment
- ✧ Environment Impact Assessment in India is statutorily backed by **the Environment Protection Act, 1986** which contains various provisions on EIA methodology and process.

History of EIA in India

- ✧ The Indian, experience with Environmental Impact Assessment began over 20 years back.
- ✧ It started in 1976-77, when the Planning Commission asked the Department of Science and Technology to examine the river-valley projects from an environmental angle.
- ✧ Till 1994, environmental clearance from the Central Government was an administrative decision and lacked legislative support.
- ✧ On 27 January 1994, the Union Ministry of Environment and Forests, under the Environmental (Protection) Act 1986, promulgated an EIA notification making Environmental Clearance (EC) mandatory for expansion or modernisation of any activity or for setting up new projects listed in Schedule 1 of the notification.
- ✧ The Ministry of Environment, Forests and Climate Change (MoEFCC) notified **new EIA legislation in September 2006.**
- ✧ The notification makes it **mandatory for various projects** such as mining, thermal power plants, river valley, infrastructure (road, highway, ports, harbours and airports) and industries including very small electroplating or foundry units **to get environment clearance.**

International history

- ✧ EIA is one of the successful policy innovations of the 20th Century for environmental conservation.
- ✧ Thirty-seven years ago, there was no EIA but today, it is a formal process in many countries and is currently practiced in more than 100 countries.

- ✧ EIA as a mandatory regulatory procedure originated in the early 1970s, with the implementation of the National Environment Policy Act (NEPA) 1969 in the US.
- ✧ A large part of the initial development took place in a few high-income countries, like Canada, Australia, and New Zealand (1973-74).
- ✧ However, there were some developing countries as well, which introduced EIA relatively early-Columbia (1974) Philippines (1978).
- ✧ The EIA process really took off after the mid-1980s.
- ✧ In 1989, the World Bank adopted EIA for major development projects, in which a borrower country had to undertake an EIA under the Bank's supervision.
- ✧ The World Summit on Sustainable Development in Johannesburg (South Africa, 2002) developed further these provisions.
- ✧ The principles promoted by these conferences are fully integrated into the provisions of the UNECE Convention on Environmental Impact Assessment.

5. Discuss the need and importance of EIA. (5)

- ✧ Environmental impact assessment, abbreviated **EIA** is a process of measuring and evaluating the impact of any proposed project and development on the environment.
- ✧ Its done by taking into consideration the social, economic, culture and human based health risks and benefits.

- ✧ Importance of environmental impact assessment is to promote safe environment, sound and sustainable development, by measuring environmental impact likely to be caused by projects.
- ✧ EIA identifies environmental risks, lessens conflict by promoting community participation, minimizes adverse environmental effects, inform decision makers, and help lay the base for environmental-sound projects.
- ✧ EIA has been identified as an important instrument for facilitating sustainability.

Need of EIA

- i. It helps in preventing natural calamities such as landslides and floods.
- ii. It promotes a good relationship between the government, developers, Environmentalist, and the people around them.
- iii. EIA helps minimize judiciary burdens, as many projects can confront legal disputes in the absence of the proper study.
- iv. It enables monitoring programmes to be established to assess future impacts and provide data on which managers can take informed decisions to avoid environmental damage.
- v. EIA is a management tool for planners and decision makers and complements other project studies on engineering and economics.

6. Discuss the significance of public participation in EIA (5)

- ✧ EIA requires the preparation and publication of an environmental report outlining the potential significant impacts of the proposed activities.

- ✧ The objective of an EIA is to inform the decision-makers of the likely environmental effects of activities.
- ✧ This helps to ensure that such activities are only undertaken in an acceptable manner, through amendment of development proposals and mitigation of potential adverse effects.
- ✧ Thus, the ultimate goal of EIA is to promote sustainable development
- ✧ Within the EIA, consultation and public participation are key elements of forward planning and participatory environmental management tools
- ✧ Participation plays a role in raising public awareness and consciousness with regard to environmental issues

The need for Public Participation Process in EIA

- ✧ Participation and communication should be an integral part of the EIA, allowing interests groups and the general public to express their views in the EIA stages listed below.

- 1) Determining the scope of the EIA (screening and scoping)
- 2) Providing specialists with knowledge about the site (scoping)
- 3) Evaluating the relative significance of the likely impacts (scoping)
- 4) Proposing mitigation measures (assessment and report)

7. Explain present scenario in India about EIA study (5)

- ✧ For an effective implementation of an EIA two pre - requisites are vital: Proper qualification of the conducting agency and its independence and non-polarity.

- ✧ Unfortunately, these two conditions are not strictly observed.
- ✧ An array of agencies and consultants are available, all claiming to be qualified and experienced in conducting EIAs for all types of projects.
- ✧ The time factor affects the quality of EIA in so far as the lateness of the EIA would not permit meticulous, integrated conduct of the assignment, nor would it allow for application of the recommended mitigation procedures.
- ✧ The participation of the local people and NGOs will no doubt act as a safeguard ensuring that the EIA has not overlooked the envisaged impacts on the community concerned.
- ✧ This participatory involvement should begin from the point of the project identification and continue throughout the project cycle.
- ✧ The following points show the present conditions of EIA methodology and practices in general way:

1. No IEIA done; scope and contract finalized as per routine.
 2. Lot of irrelevant field data collected; significant impacts ignored.
 3. All modeling/ computation of impacts non-validated, often manipulated.
 4. Consultants involved only till clearances, no long term responsibility.
 5. Comprehensive EIAs to have one year field data, rapid EIAs to have only one season.
- ✧ Environmental clearances of proposed projects, based on EIAs meant to be tools to ensure that the proposed project/activity shall not in any way adversely affect the environment, ecology or the sustainable long term interest of the people of the area.
 - ✧ Parties Involved: 1) Project Proponent, 2) EIA Consultant: Hired by proponent, 3) Government Departments and Agencies: Essentially working to clear and promote projects in the race for economic gains, 4) Suffering: Environment, ecology and people, 5) Environmental activists and NGOs, and 6) Courts.

8. Discuss the benefits of EIA (5)

- i. Reduced cost and time of project implementation.
- ii. Cost-saving modifications in project design.
- iii. Increased project acceptance.
- iv. Avoided impacts and violations of laws and regulations
- v. Improved project performance
- vi. Avoided treatment/clean up costs.

9. Briefly explain evolution of EIA in India (4)

- ✧ EIA in India was started in 1976-77, when the Planning Commission asked the Department of Science and Technology to examine the river-valley projects from the environmental angle.
- ✧ Government of India enacted the Environment (Protection) Act on 23rd May 1986.
- ✧ To achieve the objectives of the Act, one of the decisions taken was to make EIA, statutory (means regulated by laws)
- ✧ After following the legal procedure, a notification was issued on 27th January 1994 and subsequently amended on 4th May 1994, 10th April 1997 and 27th January 2000, making environmental impact assessment statutory for 30 activities.
- ✧ This is the principal piece of legislation governing EIA in India.
- ✧ Besides this, the Government of India under Environment (Protection) Act 1986 issued a number of notifications, which are related to environmental impact assessment.
- ✧ These are limited to specific geographical areas

10. Explain the need for conducting Environmental Impact Assessment (3)

✧ In principle, environmental assessment can be undertaken for:

- Individual projects such as a dam, motorway, airport or factory and call it as 'Environmental Impact Assessment' (EIA)
- Plans, programs and policies and call it as 'Strategic Environmental Assessment'(SEA).
- EIA focuses on problems, conflicts or natural resource constraints that could affect the viability of a project.
- It also examines implications of a project that might harm people, their homeland or their livelihoods, or other nearby developments.

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