

# Nalanda Open University, Patna

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## E-Content II (iv) for Part II Examination, 2020

Short description of the suggested Topics

THEORY PAPER

PAPER – XIV

(EIA, ECO-PLANNING AND SUSTAINABLE DEVELOPMENT)

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Counsellor M.A./M.Sc. (Environmental Science, Part II, Paper - XIV)

### **1. Definition and elaboration of Environmental Impact Assessment; Purpose of EIA.**

EIA is defined as an activity designed to identify and predict the impact of legislative proposals, policies, programme, projects and operational procedures on the bio-geophysical environment and on the health and well being of human beings and to interpret and communicate information about the impact.

The purpose of EIA is to ensure that development proposals, activities and programmes are environmentally sound and sustainable. EIA is a planning process use to predict, analyze and interpret the significant environmental effects of a proposal and provide information that can be used during decision making.

The purpose of EIA is as follows:

- Modify and improve the design of the proposal.
- Ensure that the resources are used efficiently.
- Enhance the social aspects related to the proposal.
- Identify the measures for monitoring and managing impacts and facilitates informal decision making.
- Systematic examination of environmental implications of a proposed action, and sometimes alternatives, before a decision is taken.
- To be an instrument for sustainable development.
- To identify, predict and to describe in appropriate terms the pros and cons (penalties and benefits) of a proposed development.
- To assess the quantitative values for selected parameters which indicate the quality of environment before, during and after action.
- Maintaining the overall quality of life, maintaining continuous access to natural resources and avoiding lasting environmental damage.
- Avoid irreversible changes and serious damage to the environment.
- Safeguard valued resources, natural areas and ecosystem components.
- It is an inter-disciplinary tool with respect to alternate routes for development, process technologies and project site.

## 2. Brief description of broad steps in an EIA.

**EIA process involves a number of steps as follows:**

**Project Screening** – The process for the screening is done partly by the EIA regulations operating in a country at the time of assessment. It also helps to identify whether the project requires an EIA to be done or not.

**Scoping** – The step helps to identify at an early stage, the key, significant environmental issues from among a host of possible impacts of a project and all available alternatives.

**Consideration of alternatives** – This seeks to ensure that the proponent has considered other feasible approaches, including alternate project locations, scale, processes, layouts, operating condition and no - action option.

**Description of project/Development action** – This step is to clarify the purpose and rationale of the project and understanding its various characteristics, including stages of development, location and processes.

**Description of Environmental Baseline** – This includes the establishment of both the present and future stage of the environment, in the absence of the project, taking into account the changes resulting from natural events and from other human activities.

**Identification of key impacts** – This brings together previous step with a view to ensuring that all potentially significant environmental impact (adverse and beneficial) are identified and taken into account in the process.

**The predictions of impact** – In this step we identify the likely magnitude of the change (i.e. impact) in the environment when the project is implemented in comparison with the situation when the project is not carried out.

**Evaluation and assessment of significance** – This seeks to assess the relative significance of the predicted impacts to allow a focus on key adverse impacts.

**Mitigation** – This involves the introduction of measures to avoid, reduce, remedy or compensate for any significant adverse impact.

**Public consultation and Participation** – For effectiveness of EIA it should be ensured that public views are adequately taken into consideration in decision making process.

**EIS presentation** – This is a vital step in this process. If done badly, much good work in the EIA may be negated.

**Review** – This step involves a systematic appraisal of the quality of EIS, as help to decision making process.

**Decision making** – At this stage decision are made by relevant authority together with other material considerations as to whether to accept, defer or reject the project.

**Post decision monitoring** – This involves the recording of the outcome associated with development impacts, after the project proceeds. It can contribute to effective project management.

**Auditing** – This follows monitoring and involves comparing actual outcomes with predicted outcomes, and can be used as a quality of prediction and effective mitigation.

### **3. Importance of Public Participation in Environmental Impact Assessment process.**

#### **Brief discussion on pros and cons of this participation.**

It is being realized that the public whose environment will be affected by developmental proposal have a right to participate in decision making that affect that environment.

“Principle 10 of the Rio declaration insists that environmental issues are best handled with the participation of all concerned citizen at the relevant level”.

Nearly all EIA systems make provision for some type of public participation which include public consultation (dialogue) and public participation. The public must be provided an opportunity to express their views regarding the proposal and its environmental and social impacts.

The key objectives of public involvement are to:

- Obtain local and traditional knowledge that may be useful for decision – making.
- Facilitate consideration of alternatives, mitigation measures & tradeoffs.
- Ensure that important impacts are not over looked and benefits are maximized.
- Reduce conflict through early identification of contentious issues.
- Provide an opportunity for the pubic to influence project design in positive manner.
- Improve transparency and accountability in decision making.
- Increase public confidence in EIA process.

#### **Pros and Cons of public participation are as follows:**

##### **Pros:**

- The public is informed.
- To mobilize underutilized resources.
- A source of local knowledge.
- Better decision making.
- Different viewpoints are identified.
- Potential conflicts are identified.
- Trust & mutual respect are fostered.
- Avoids objections and delay at later stages.

##### **Cons:**

- It is time consuming & costly exercise.
- Only those with scientific or technical training are able to contribute positively in decision making.
- Third parties should not be allowed to interfere with other person’s democratic right.
- The existing political process may interfere.
- Public participation encourage litigation to disturb the proper process of government/administration.