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Q. Describe the various stages involved in undertaking Environment Impact Assessment (EIA). Also highlight the importance of Strategic Environmental Assessment. (150 words)

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Approach / Explanation / Answer

- Briefly explain the concept of Environmental Impact Assessment (EIA)
- Discuss the fundamental components or the process of EIA
- Briefly explain the importance of strategic impact assessment
- Provide a brief conclusion

Answer

UNEP defines Environmental Impact Assessment (EIA) as a tool used to identify the environmental, social and economic impacts of a project prior to decision-making. It aims to predict environmental impacts at an early stage in project planning and design, find ways and means to reduce adverse impacts, shape projects to suit the local environment and present the predictions and options to decision-makers.

The various stages involved in undertaking EIA are

- Screening, to determine which projects or developments require a full or partial impact assessment study. Screening criteria are based upon scales of investment, types of development and location of the development.
- Scoping, to identify which potential impacts are relevant to assess (based on legislative requirements, international conventions, expert knowledge and public involvement)
- To identify alternative solutions that avoid, mitigate or compensate adverse impacts on biodiversity (e.g. finding alternative designs or sites which avoid the impacts, incorporating safeguards in the design of the project, or providing compensation for adverse impacts)

- Assessment and evaluation of impacts and development of alternatives, to predict and identify the likely environmental impacts of a proposed project or development, including the detailed elaboration of alternatives.
- Reporting the Environmental Impact Statement (EIS) or EIA report, including an Environmental Management Plan (EMP), and a non-technical summary for the general audience.
- Review of the Environmental Impact Statement (EIS), based on the terms of reference (scoping) and public (including authority) participation.
- Decision-making on whether to approve the project or not, and under what conditions.
- Monitoring, compliance, enforcement and environmental auditing to check whether the predicted impacts and proposed mitigation measures occur as defined in the EMP.

Strategic Environmental Assessment (SEA)

It is also known as Strategic Impact Assessment (SIA) and it is defined as the formalized, systematic and comprehensive process of identifying and evaluating the environmental consequences of proposed policies, plans or programmes to ensure that they are fully included and appropriately addressed at the earliest possible stage of decision-making on par with economic and social considerations.

Importance of SEA

- SEA is applied at the strategic level and considers the wider environmental, social and economic impacts.
- Taking a more proactive approach than EIA, SEA is applied early and includes the participation of all stakeholders.
- It covers a wider range of activities or a wider area and often over a longer time span than the EIA of projects.
- It might be applied to an entire sector (such as a national policy on energy for example) or to a geographical area (for example, in the context of a regional development scheme)

Environmental Impact Assessment (EIA) is a process to predict the environmental consequences of a project's development. By evaluating the project through the EIA, we can assess the environmental effects of each plan and select the plan that will suit our needs, the most. By using EIA both environmental and economic benefits can be achieved, such as reduced cost and time of project implementation and design, avoided treatment/clean-up costs and impacts of laws and regulations.