

**(Introduction to Environmental
Studies) B. Tech 3rd Semester**



***ENVIRONMENTAL LEGISLATIONS AND
ENVIRONMENTAL IMPACT ASSESSMENT (EIA) IN
INDIA***

Unit 6

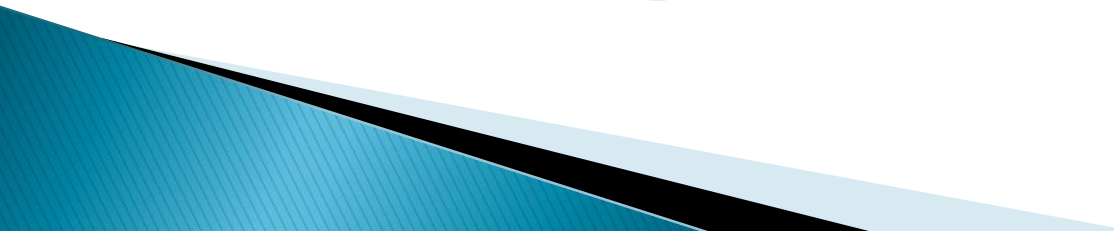
Social Issues and the Environment



Department: Chemistry

Subject: Environmental Studies (CHM2041)

LEGAL ASPECTS OF ENVIRONMENTAL PROTECTION

- Countries with well defined environmental laws: Sweden, Netherlands, Canada, USA, UK, Australia and New-Zealand actively implemented environmental laws.
 - India is the first country in the world which has provision for environmental protection in its constitution (**Article 48-A** and Article **51-A (g)** of The Constitution of India).
 - In India: more than 200 central/state laws for environmental protection.
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Environmental Laws

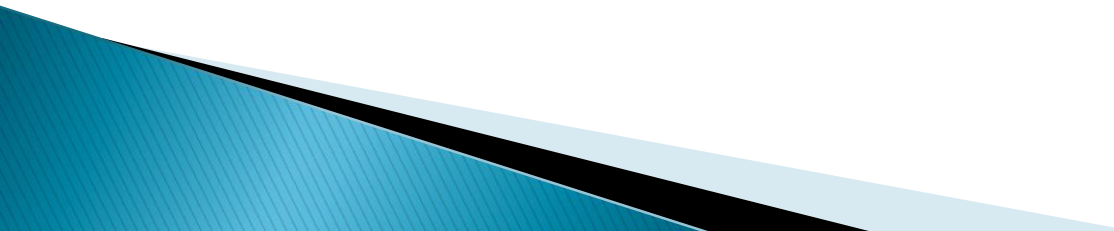
In the 42th amendment of Indian constitution, there are two articles (Article 48A and 51A(g)) that exclusively deals with the environmental issues w.e.f 3rd January, 1977.

Article 48-A:

It orders the State to make effort for *protection and improvement of the environment* and for *safeguarding the forest and wildlife of the country*.

Article 51-A (g):

It shall be the duty of *every citizen of India* to *protect and improve the natural environment* including forests, lakes, rivers and wildlife and to have compassion for living creatures.

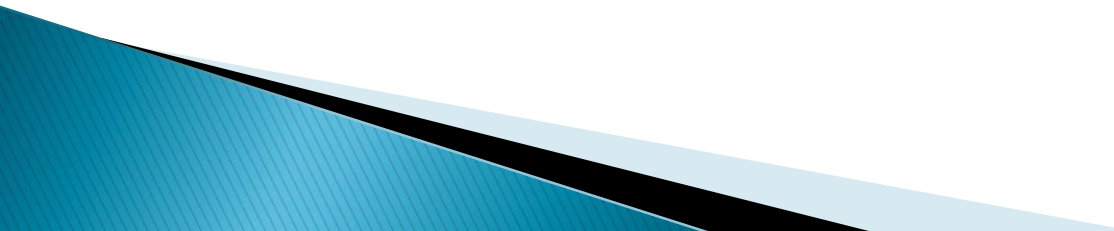


Objectives of Environmental Laws

- Guidance for resource use and checking their overexploitation
- Regulating pollution and defining limits
- Resolving conflicts related to environment issues
- Punishing or imposing penalty on the violators of laws

Law for Environmental Protection

Important legislations:

- The Water (Prevention and Control of Pollution) Act, 1974
 - The Air (Prevention and Control of Pollution) Act, 1981
 - The Environment (Protection) Act, 1986
 - The Hazardous Wastes (Management and Handling) rules, 1989
 - Bio-medical Waste (Management and Handling) Rules, 1998
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Law for Environmental Protection

The Recycled Plastics Manufacture and Usage Rule, 1999.

The Noise pollution (Regulation and Control) Rules, 2000

The Ozone Depleting Substances (Regulation and Control) Rules, 2000

The Municipal Solid Waste (Management and Handling) Rules, 2000

The Batteries (Management and Handling) Rules, 2001



Law for Environmental Protection

Other related laws and acts:

Indian Forest Act, 1927.

The Wild life (Protection) Act, 1972

The Forest (Conservation) Act, 1980

EIA Notification ,1994

Revised EIA notification, 2006.

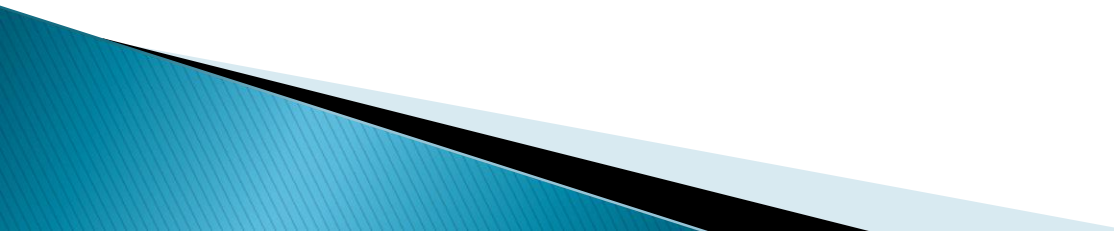
The National Environment Tribunal Act, 1995

The National Environment Appellate Authority Act,1997

The Bio-Diversity Act, 2002

The Water (Prevention and Control of Pollution) Act, 1974

Salient features of the Act

- ▶ To prevent and control water pollution
 - ▶ To establish Central and State Boards for prevention and control of pollution
 - ▶ To empower the Boards for prevention/control of pollution
 - ▶ To impose penalties for contravention of the provisions of the Act
 - ▶ To establish control on state water testing laboratories
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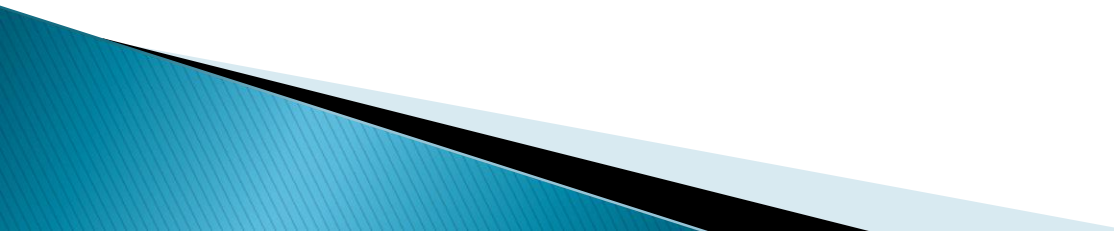
Central Pollution Control Board: (CPCB)

Main functions :

- a) Advise the Central Govt. for control of pollution of water
- b) Co-ordinate the activities of the State Boards
- c) Provide technical assistance and guidance to State Boards
- d) Plan and organize training related to environmental issue
- f) Lay down standards for stream/well
- g) Plan and organize pollution control programs
- h) Establish laboratories for testing

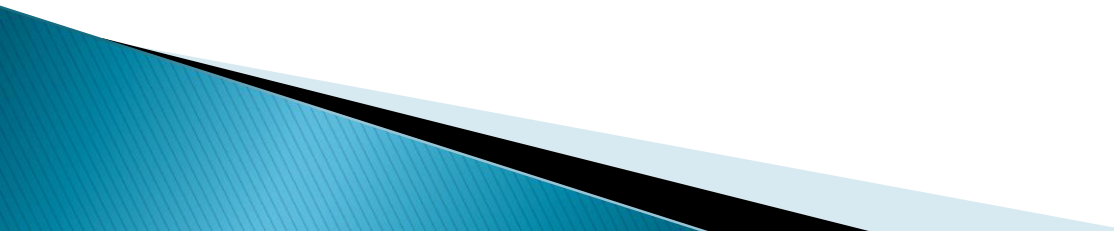
State Pollution Control Board (SPCB)

Major Functions:

- Plan and control/abate pollution of water
 - Advise State Govt. on matters of water pollution
 - To collect sample and spread information
 - To investigate and conduct research in matters of pollution
 - To work in tune with CPCB
 - To inspect sewerage or trade effluents
 - To lay down standards of sewerage/trade effluents etc.
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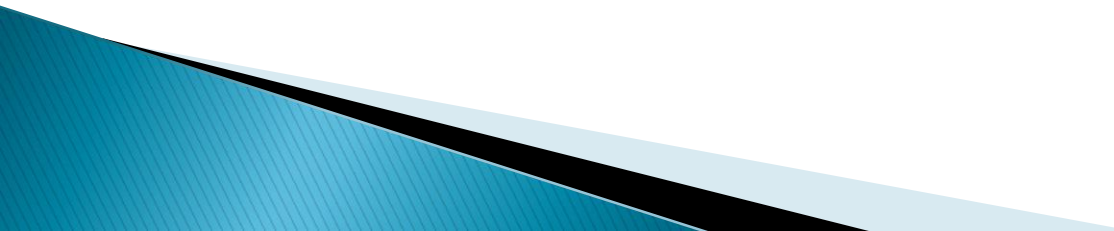
The Air (Prevention and Control of Pollution) Act, 1981

Main objectives are:

- ▶ To prevent, control and abatement of air pollution
 - ▶ Maintaining the quality of air
 - ▶ Establishment of Boards for the prevention and control of air pollution
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The Air (Prevention and Control of Pollution) Act, 1981

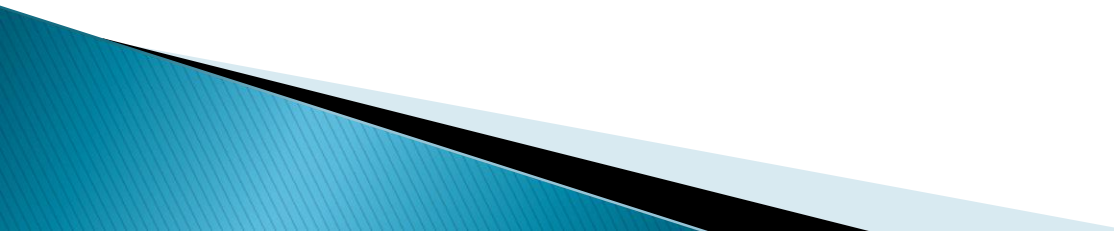
Power and functions of Boards:

- Power to declare Air pollution Control areas
 - Power to Establish standards for Emission of Air pollutants from Automobiles.
 - Power to restrict use of certain Industrial plants
 - Power to Entry and Inspection
 - Power to take sample for analysis
 - Penalties for violations of the Provisions under the act.
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Environmental Protection Act, 1986

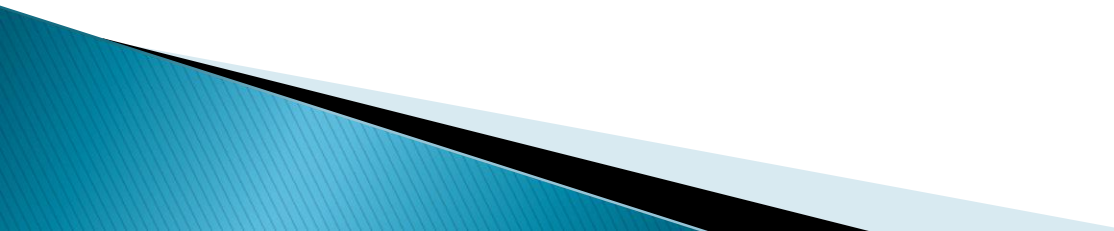
Objectives:

An umbrella act for protection and improvement of environment and for matters connected with it.

- ▶ **Protection and improvement of environment** (water, air and land)
 - ▶ **Prevention of Hazards** to all living creatures (humans, plants and animals) and property.
 - ▶ Maintenance of harmonious relationship between human beings and their environment.
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Environmental Protection Act, 1986

General power of Central Government:

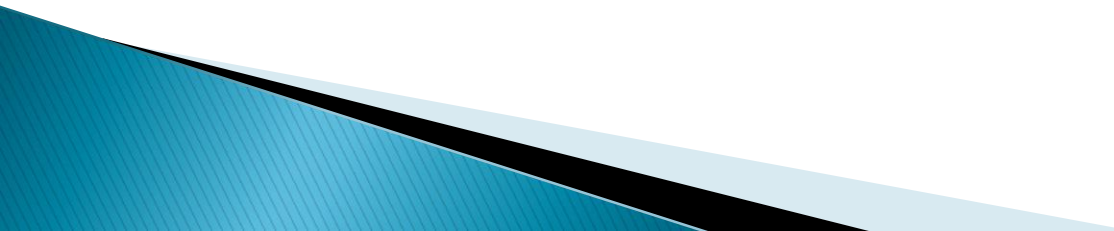
- ▶ Planning and executions of a nationwide programme to prevent , control and abate environmental pollution.
 - ▶ Laying down standard for emission or discharge of environmental pollutants from different sources.
 - ▶ Find restricting areas in which industries, operations or processes shall not be carried out.
 - ▶ Laying down procedures and safeguards for handling of hazardous substances likely to cause accidents.
 - ▶ Carrying out and sponsoring investigations and research in environmental pollution problems.
 - ▶ Establishment and recognition of environmental laboratories and institution.
 - ▶ Penalties for violating the provision in this Act.
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The Hazardous Waste (Management and Handling) Rules, 1989

- proper treatment and disposal of hazardous waste(s) and comply with the conditions specified in the authorization
- Take steps, wherever feasible for reduction, recovery and recycling of wastes
- Ensure proper collection, reception, treatment, storage and disposal of hazardous wastes
- Apply for renewal of authorization before expiry of the validity period
- Maintain records of hazardous wastes handling (Form 3)
- Submit “Annual Returns” to the SPCB (Form 4)
- Report to the SPCB any accident

The Wildlife (Protection) Act, 1972

To preserve the Biodiversity

- Greater protection to wildlife through **prohibiting hunting** of wild animals.
 - Provision to prohibit collection and **exploitation of wild plants** which are threatened with extinction.
 - **Transportation of Wildlife is banned** except with the permission from chief wildlife warden.
 - Maintenance of sanctuary, national parks and biosphere reserves.
 - Penalty- 3 years of imprisonment or fine with 25000 or both
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The Forest (Conservation) Act 1980

- The Forest Conservation Act was enacted with a view to check further deforestation, which ultimately results in ecological imbalances.
- The act places restrictions on the power of the State Government concerning preservation of forests or use of forest land for non-forest purposes.
- As per Section 2 of the Act, all ongoing non-forest activities within any forest, in any State throughout the country, without prior approval of the Centre, must cease forthwith.
- On violation of the provision of Section 2, the offender shall be punishable with imprisonment for a period extending to 15 days.
- Compensatory aforestation one of the most important environmental safeguards

Environmental Impact Assessment (EIA)

EIA Notification, 1994 (*Amended in 2006*)

➤ **Environmental Impact Assessment (EIA):** is a tool that helps us beforehand to identify, assess and predict the environmental impacts of new proposed project/ industry for its approval by government authority and thus can mitigate the negative environmental impacts.

➤ It can be defined as a process that requires consideration of environmental issues of the proposed project and **public participation** in the decision making process of project development.

EIA

- ▶ On the basis of project size, capital investment, raw material used, pollution potential etc.
- ▶ all the projects are classified either as 'Category A' or 'Category B' (B further as B1 or B2).
- ▶ **Category A projects:** should get clearance from **govt. of India**, ministry of Forest, Environment and Climate Change and
- ▶ **B1 category projects:** should get clearance from respective **State govt.**

Screening

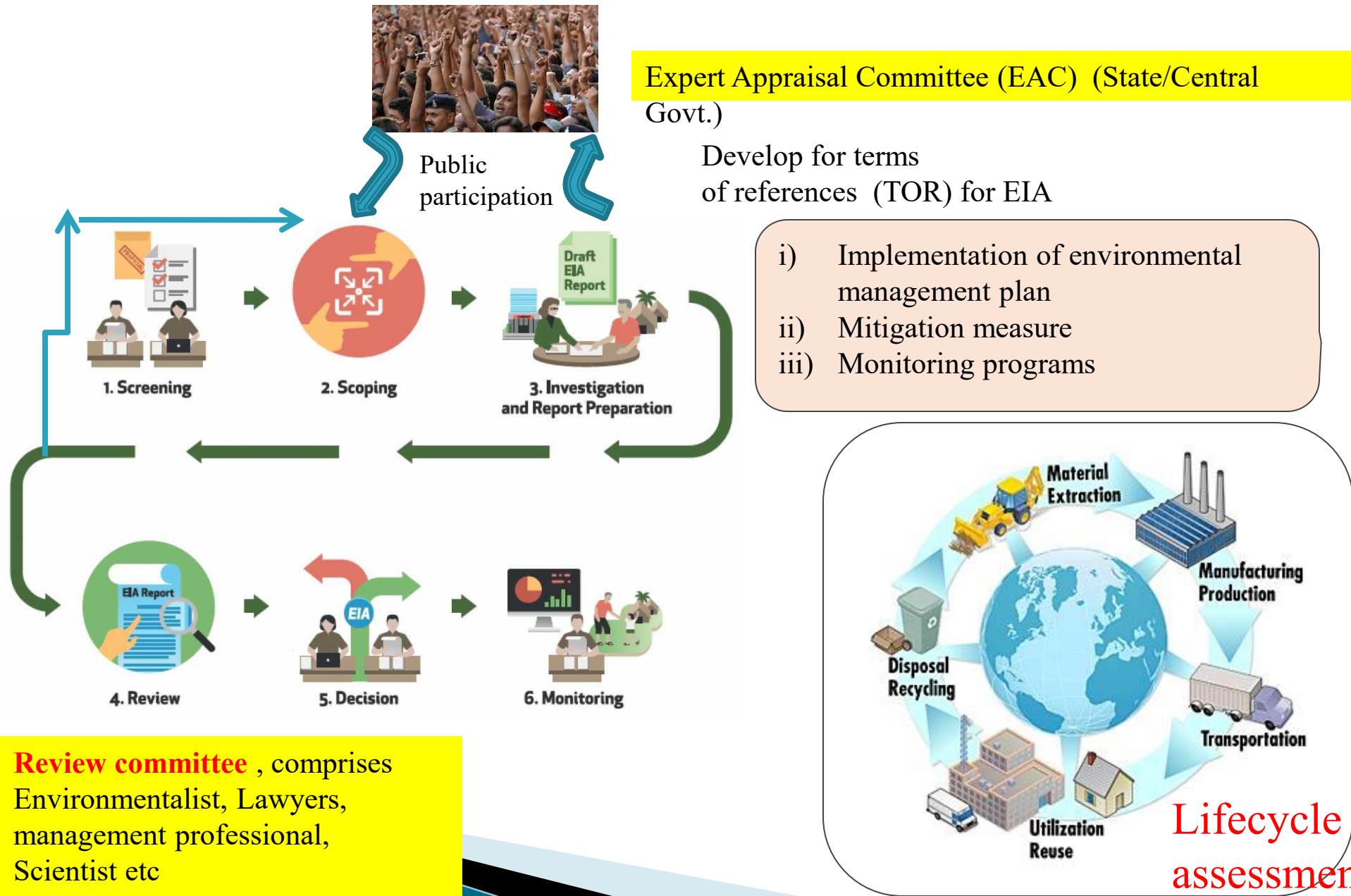
1. **Screening** (to determine whether the proposed project requires an EIA; and if it requires EIA, then the level of assessment required)

By Central or state expert appraisal Committee

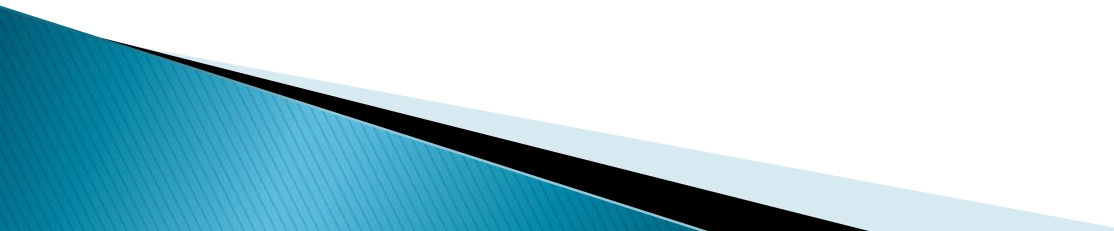
Screening based on


- i) **Size**, capacity
- ii) **Sensitivity**; Highly polluting industry, Refinery, petrochemical , nuclear power plant etc
- iii) **Location**: Should near to archeological place, National park and Sanctuary.

Flow sheet of environmental Impact assessment



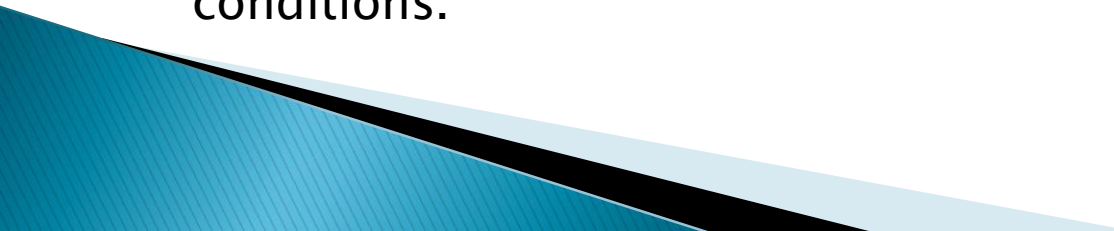
The EIA process

- The major steps of the EIA process are briefly presented below:
 - a) Scoping** (to identify the key issues and impact that should be further investigated; also to define the boundary and time limit of the study)
 - 1. Energy source, water source, raw material, technology ect.
 - Develop for terms of references (TOR) for EIA
 - b) Description of the project** (to clarify purpose, and characteristics of the project)
 - c) Consideration of alternatives** (to identify alternatives of project in terms of location, scale, layout, operation etc.)
 - d) Description of the environmental baseline** (to describe the current and future status (without project) of environmental parameters of the area)
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- e. Identification of Key-Impacts** (to identify and enlist all the aspects / parameters that may be affected by the project)
 - f. Impact Prediction and Evaluation** (to predict the magnitude of likely change in different parameters due to project implementation and to evaluate significance of these changes)
 - g. Mitigation (to recommends** the actions for reducing or avoiding the major adverse environmental impact of the project)
 - h. Public consultation** (to share the concerned information with the public and different stakeholders and to take their views of for necessary inputs)
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- i. **Decision making** (to decide whether the project is rejected, approved or needs further change)
- j. **Post-Monitoring** (after the project is commissioned, to check whether the impacts of the project do not exceed the legal standards and the mitigation measures are properly implemented)

Benefits of the EIA Process;

- ▶ Potentially screens out the projects that are environmentally unsound.
 - ▶ Proposes for modified designs to reduce environmental impacts.
 - ▶ Identifies the feasible alternatives.
 - ▶ Predicts the significant adverse impacts.
 - ▶ Identifies mitigation measures to reduce, offset or eliminate major impacts on environment.
 - ▶ Informs and engages potentially affected individuals and communities.
 - ▶ Influences decision makers and development of terms and conditions.
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Environmental Audit

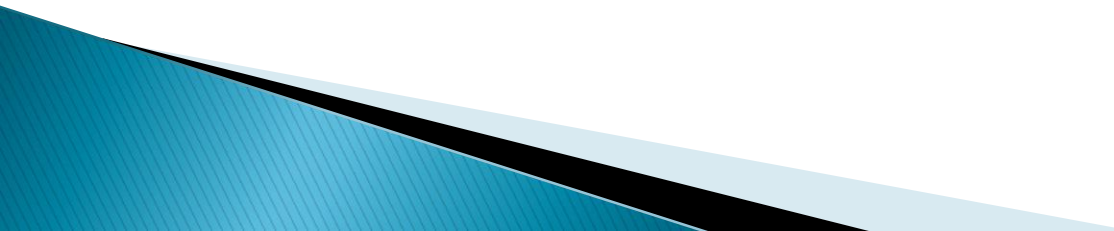
The EIA undertaken in developed countries has basically two components;

- ▶ **Assessment**
- ▶ **Verification**

Assessment:

- ▶ It provides expert judgment/opinion on environmental hazards, associated risks and management and control measures.

Verification:

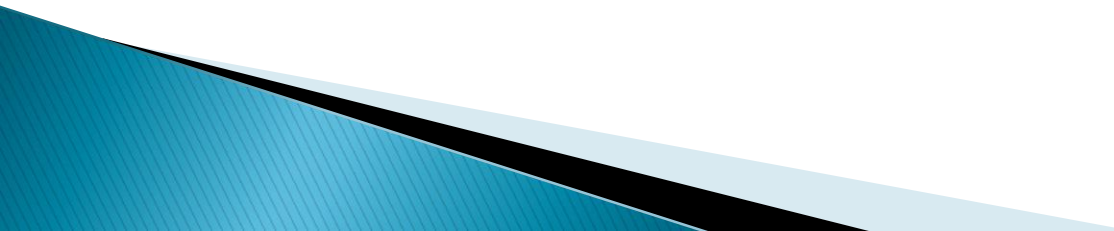
- ▶ it determines the document performance by evaluating the application of and adherence to environmental policies and procedures, certifies and validity of environmental data and reports and evaluates the effectiveness of the overall management system.
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Audit Objectives

Range of Audit Objectives:

- ▶ Identify and document
- ▶ Improve overall environmental performance
- ▶ Better understanding and interpretation
- ▶ Increase overall level of environmental performance
- ▶ Accelerate overall development of EMS
- ▶ Improve the environmental risk management system

Audit Methodology:

- ▶ Pre-audit activity
 - ▶ On-site activity
 - ▶ Post-audit activity
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Thank You