

1. Environment (Protection) Act (EPA), 1986

1.1. Introduction

- The Environment (Protection) Act, 1986 was enacted by the Parliament in the year 1986 in the wake of the **Bhopal Gas Tragedy** which took place in the year **1984**.
- The Act was made under **Article 253** of the Constitution to implement the decisions of the United Nations Conference on the Human Environment of 1972.
- India, which was one of the parties to the conference, undertook an obligation to implement all possible measures in relation to the protection and improvement of the human environment.

1.2. An overview of the EPA, 1986

- The scope of the EPA is broad, with "environment" defined to include water, air, land and the inter relationships which exist among water, air and land and human beings and other living creatures, plants, micro-organisms and property.
- The law also promulgates rules on hazardous waste management and handling.
- The Act also defines the responsibilities of handlers, circumstances for granting authorization, conditions of disposal sites, reporting of accidents, packaging and labeling requirements and an appeal process for potential handlers who have been denied authorization.
- Rules were also promulgated on the manufacture, storage and import of hazardous or toxic chemicals, microorganisms, genetically engineered organisms, or cells.
- The EPA is an umbrella legislation designed to provide a framework for Central Government coordination of the activities of various Central and State authorities established under previous laws, such as Water Act and Air Act.

1.3. Provisions of the EPA, 1986

- The Act is a very small one framed with **4 chapters containing a total 26 sections**.
- **Chapter 1** deals with **preliminary aspects** like scope of the Act, definitions of certain important terms.
- **Chapter 2** contains the provisions which give **general power to the Central Government** to take all measures to improve the quality of the environment.
- **Chapter 3** lays out the **substantive provisions** relating to prevention, control and abatement of environmental pollution and also contains the penal provisions. The **last chapter** deals with **miscellaneous aspects**.

- **Section 3 to 6 of the Act** lays down the general powers of the Central Government relating to the protection of the environment.
- The Act confers sweeping powers in the hands of the Central Government to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution.
- The Environment Act confers on the Central Government the power to
 - restrict areas where certain industries, processes and operations shall not be carried out or shall be carried out subject to certain safeguards.
 - to establish and recognise environment laboratories and to appoint and recognize Government analysts.

1.4. Environment (Protection) Third Amendment Rules, 2022

- As many as **39 amendments** were made to various rules and notifications to the Environment Protection Act, 1986 from March 2020 to March 2022.
- They were aimed at providing relaxations and exemptions to the statutory requirements prescribed under the pre-existing laws.
- The Ministry of Environment, Forest and Climate Change (MoEFCC) on 3rd November 2022, has notified the Environment (Protection) Third Amendment Rules, 2022 which is effective from 1st July 2023.
- The amendment has notified the emission standards under Schedule I as follows:
 - The emission limits for new engines used for power generating set (Genset) applications up to 800 kW Gross Mechanical Power, namely:
 - Diesel engines;
 - Engines based on dedicated alternate fuels;
 - Engines based on Bi-fuels run either on Gasoline or on any one of the alternate fuels;
 - Engines based on Dual Fuel run on Diesel and any of the alternate fuels;
 - Portable Generator sets run on Gasoline fuel, dedicated alternate fuels and Bi-fuel run either on Gasoline or on any one of the alternate fuels.
 - Emission limits for new engines up to 800 kW used for Genset are effective from 1st July, 2023 and the test cycle for constant speed and variable speed application shall be as described in System and Procedure for Genset.

2. Environment Impact Assessment (EIA)

2.1. Introduction

- Environmental Impact Assessment (EIA) is an important management tool for ensuring **optimal use of natural resources for sustainable development**.
- A beginning in this direction was made in India with the impact assessment of river valley projects in 1978-79 and the scope has subsequently been enhanced to cover other developmental sectors such as industries, thermal power projects, mining schemes etc.
- The MoEFCC uses **EIA Notification 2006** as a major tool for minimizing the adverse impact of rapid industrialization on the environment and for reversing those trends which may lead to climate change in the long run.
- EIA has been made mandatory under the Environmental (Protection) Act, 1986 for 29 categories of developmental activities involving investments of Rs. 50 crores and above.

2.2. Environmental Appraisal Committees

- With a view to ensure multi-disciplinary input required for environmental appraisal of development projects, Expert Committees have been constituted for the following sectors:
 - Mining Projects
 - Industrial Projects
 - Thermal Power Projects
 - River Valley, Multipurpose, Irrigation and Hydroelectric Projects
 - Infrastructure Development and Miscellaneous Projects
 - Nuclear Power Projects
 - Environmental Appraisal Procedure
- Once an application has been submitted by a project authority along with all the requisite documents specified in the EIA Notification, it is scrutinized by the technical staff of the Ministry prior to placing it before the Environmental Appraisal Committees.
- The Appraisal Committees evaluate the impact of the project based on the data furnished by the project authorities and if necessary, site visits or on-the-spot assessment of various environmental aspects are also undertaken.
- Based on such examination, the Committees make recommendations for approval or rejection of the project, which are then processed in the Ministry for approval or rejection.

2.3. The EIA process

Screening

- First stage of EIA, which determines whether the proposed project requires an EIA and if it does, then the level of assessment required.

Scoping

- It is a process of detailing terms of reference of EIA. It determines the significant impacts to be considered in EIA.

Baseline Data

- It describes the existing environmental status of the identified study area. The site-specific primary data should be monitored for the identified parameters and supplemented with secondary data.

Impact Prediction

- It is a way of mapping the environmental consequences of the significant aspects of the project and its alternatives. The following aspects are studied:
 - Air quality, noise and water quality
 - Deforestation and animal habitat shrinkage
 - Socio economic impacts like demographic changes, availability of employment etc.

Assessment of alternatives, Mitigation Measures and EIA Report

- For every project possible alternatives should be identified and environmental attributes compared.
- Alternatives should cover NO PROJECT option also. An EIA Report provides clear information to the decision maker on the different environmental scenarios without the project, with the project and with project alternatives.

Public Hearing

- After the completion of the report the law requires that the public must be informed and consulted on proposed development.
- Generally the State Pollution Control Boards conduct the public hearing. The people who are affected have the right to give oral or written suggestions.

Decision Making

- Decision making process involves consultation between the project proponent, and the impact assessment authority.
- In case of site specific projects such as Mining, River Valley, Ports and Harbors etc, a two stage clearance procedure has been adopted whereby the project authorities have to obtain site clearance before applying for environmental clearance of their projects.

Monitoring

- After considering all the facets of a project, environmental clearance is accorded subject to implementation of the stipulated environmental safeguards.
- Monitoring of cleared projects is undertaken by the six regional offices of the Ministry functioning at Shillong, Bhubaneshwar, Chandigarh, Bangalore, Lucknow and Bhopal.
- The primary objective of such a procedure is to ensure adequacy of the suggested safeguards and also to undertake mid-course corrections required, if any.

2.4. Amendment to the Environment Impact Assessment (EIA) Rules

- The Ministry of Environment, Forests and Climate Change has notified an amendment to the Environment Impact Assessment (EIA) Rules in July 2022.
- One of the amendments exempts highway projects of strategic and defense importance, which are 100 km from the Line of Control, among other locations, from an environmental clearance before construction.
 - It will do away with the need for green clearance for the construction of the Char Dham project, which includes widening of 899 km roads in ecologically sensitive areas of Uttarakhand.
- Thermal power plants up to 15 MW based on biomass or non-hazardous municipal solid waste using auxiliary fuel such as coal, lignite or petroleum products up to 15 per cent have also been exempted.
- Fish handling ports and harbours with less pollution potential compared to others, and caters to small fishermen, are exempted from environmental clearance.
- Other projects exempted are Toll plazas that need more width for the installation of toll collection booths, and expansion activities in existing airports without an increase in the airport's existing area.

3. National Green Tribunal (NGT)

3.1. Introduction

- The National Green Tribunal was **established on 18.10.2010 under the National Green Tribunal Act 2010** for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.
- It includes enforcement of any legal right relating to the environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.

3.2. Functioning

- It acts as a special fast-track court.
- The Tribunal is not bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be **guided by principles of natural justice**.
- It has been bestowed with powers to decide on questions for implementing laws mentioned in Schedule I of the NGT Act and to be heard on all cases which are civil in nature and deals with environmental issues as follows:
 - The Water (Prevention and Control of Pollution) Act, 1974;
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 - The Forest (Conservation) Act, 1980;
 - The Air (Prevention and Control of Pollution) Act, 1981;
 - The Environment (Protection) Act, 1986;
 - The Public Liability Insurance Act, 1991;
 - The Biological Diversity Act, 2002.
- However, the tribunal has been prohibited to hear any issues which are covered under the Indian Forest Act, 1927, The Wildlife (Protection) Act, 1972, and any other laws made by States which are related to protection of trees, forests, etc.

3.3. Organization

- NGT consists of a chairperson who should have been retired as a Supreme Court judge.
- The Judicial members of the tribunal should have been retired as Judge of the High Courts.
- The principal bench is located in Delhi, with other benches sitting in Bhopal, Pune, Kolkata and Chennai.

3.4. Importance

- Handles the cases pertaining to:
 - environmental issues
 - conservation of forests and other natural resources
 - enforcement of any legal right relating to environment
 - giving relief and compensation for damages to persons and property for matters connected to environment
- Reduce the burden of litigation in the higher courts.
- In tune with the Constitutional provision of Article 21, which assures the citizens of India, the right to a healthy environment.

4. Solid Waste Management Rules (SWM), 2016

- In April 2016, the Union Ministry of Environment, Forests and Climate Change notified the new Solid Waste Management Rules (SWM), 2016.
- This has replaced the Municipal Solid Wastes (Management and Handling) Rules, 2000.

4.1. Salient features of Solid Waste Management Rules (SWM), 2016

- The Rules are **now applicable beyond Municipal areas** and extend to urban agglomerations, notified industrial townships, areas under the control of Indian Railways, airports, airbase, etc.
- The **source segregation of waste** has been mandated to channelize the waste to wealth by recovery, reuse and recycle.
- **Responsibilities of Generators** have been introduced to segregate waste into three streams, Wet, Dry and domestic hazardous wastes and handover segregated wastes to authorized rag-pickers or waste collectors or local bodies.
- **Integration of waste pickers/ rag pickers** and waste dealers/ Kabadiwalas in the formal system should be done by State Governments, and Self Help Group, or any other group to be formed.
- **No person should throw, burn, or bury the solid waste** generated by him, on streets, open public spaces outside his premises, or in the drain, or water bodies.
- **Generators will have to pay 'User Fee'** to waste collectors and **'Spot Fine' for Littering** and Non-segregation.
- The concept of **partnership in Swachh Bharat** has been introduced.
- **All hotels and restaurants should segregate biodegradable waste** and set up a system of collection or follow the system of collection set up by the local body.
- **All Resident Welfare and market Associations**, Gated communities and institutions with an area >5,000 sq. m should segregate waste at source.
- **The bio-degradable waste should be processed, treated and disposed of through composting or bio-methanation** within the premises as far as possible.
- **Every street vendor should keep suitable containers** for storage of waste generated during the course of his activity and deposit such waste at a waste storage depot or container or vehicle as notified by the local authority.

- The developers of **Special Economic Zone, industrial estate, industrial park to earmark at least 5%** of the total area of the plot or minimum 5 plots/sheds for recovery and recycling facility.
- **All manufacturers of disposable products** or brand owners who introduce such products in the market shall provide necessary financial assistance to local authorities.
- **Construction and demolition waste should be stored, separately disposed off**, as per the Construction and Demolition Waste Management Rules, 2016

5. Plastic Waste Management Rules, 2016

The Government has notified the Plastic Waste Management Rules, 2016, in suppression of the earlier Plastic Waste (Management and Handling) Rules, 2011. The Plastic Waste Management Rules, 2016 aim to:

- Increase minimum thickness of plastic carry bags from 40 to 50 microns and stipulate **minimum thickness of 50 micron** for plastic sheets also to facilitate collection and recycle of plastic waste
- Expand the jurisdiction of applicability from the municipal area to rural areas, because plastic has reached rural areas also. Responsibility for **implementation of the rules is given to Gram Panchayat**.
- To bring in the responsibilities of producers and generators, both in the plastic waste management system and to introduce a collect back system of plastic waste by the producers/brand owners, as per **extended producers responsibility**.
- To introduce collection of **plastic waste management fee** through pre-registration of the producers, importers of plastic carry bags/multilayered packaging and vendors selling the same for establishing the waste management system.
- To promote **use of plastic waste for road construction** as per Indian Road Congress guidelines or energy recovery, or waste to oil etc. for gainful utilization of waste.

5.1. Plastic Waste Management (Second Amendment) Rules, 2022

- The amended rules were issued on July 6, 2022 in view of the **phasing out of certain single-use plastic products**.
- It mandates an **increase in the thickness of plastic carry bags to over 120 microns** from December 31, 2022.
- The rules specify what biodegradable plastics are and provide a **statutory framework for their use** as an alternative material.

- They provide for levying of penalties or **environmental compensation under the “Polluter Pays” principle** on those who do not comply with the rules.
- The phasing out of single-use plastic items from July 1, 2022 **include wrapping or packaging films** around sweet boxes, invitation cards, and cigarette packets, plastic or PVC banners of less than 100-micron thickness, stirrers, plastic cutlery, straws, etc.
- The guidelines contain specifications for reuse, recycling, use of recycled plastic content, and end-of-life disposal of plastic packaging that cannot be recycled.

6. E-Waste (Management) Rules, 2022

- The Ministry of Environment, Forest & Climate Change (MOEFCC) has notified E-waste (Management) Rules, 2022 on 02 November 2022, which has **replaced the E-waste (Management) Rules, 2016**.
- The 2022 Rules have **introduced recycling targets in the extended producer responsibility (EPR)** plan of the producers of e-waste.

7.1. Salient features of E-Waste (Management) Rules, 2022

- **Applicable to every manufacturer, producer, refurbisher, dismantler and recycler.**
- All the manufacturers, producers, refurbishers and recyclers are required to register on a portal developed by CPCB.
- No entity shall carry out any business without registration and also not deal with any unregistered entity.
- Schedule I expanded and now **106 EEE (electrical and electronic equipment) has been included under EPR regime.**
- Producers of notified EEE, have been given annual E-Waste Recycling targets based on the generation from the previously sold EEE or based on sales of EEE
- **Management of solar PV modules /panels/ cells added in new rules.**
- The quantity recycled will be computed on the basis of end products, so as to avoid any false claim.
- Provision for generation and transaction of **EPR Certificate** has been introduced.
- Provision for constitution of Steering Committee to oversee the overall implementation of these rules.

Central Pollution Control Board

- The Central Pollution Control Board (CPCB), a **statutory organization**, was **constituted in September, 1974** under the Water (Prevention and Control of

Pollution) Act, 1974.

- Further, CPCB was entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981.
- It serves as a field formation and also provides technical services to the Ministry of Environment and Forests of the provisions of the Environment (Protection) Act, 1986.
- It coordinates the activities of the State Pollution Control Boards by providing technical assistance and guidance and also resolves disputes among them.
- CPCB has its **head office in New Delhi**, with seven zonal offices and 5 laboratories.
- Principal Functions of the CPCB, as spelt out in the Water (Prevention and Control of Pollution) Act, 1974, and the Air (Prevention and Control of Pollution) Act, 1981,
 - to **promote cleanliness** of streams and wells in different areas of the States by prevention, control and abatement of water pollution, and
 - to **improve the quality** of air and to prevent, control or abate air pollution in the country.