



- ENVIRONMENT  
- Part 7

## Hazardous Waste Management Rules, 2016

Hazardous wastes are wastes or products that have the potential to harm humans or the environment, either now or in the future.

Rules have been made to distinguish between Hazardous Waste and other wastes. Other wastes include: Waste tyre, paper waste, metal scrap, used electronic items, etc. and are recognized as a resource for recycling and reuse.

The following items have been prohibited for import:

- Waste edible fats and oil of animals, or vegetable origin;
- Household waste;
- Critical Care Medical equipment;
- Tyres for direct re-use purpose;
- Solid Plastic wastes including Pet bottles;
- Waste electrical and electronic assemblies scrap;
- Other chemical wastes especially in solvent form.

## Hazardous Waste Management Rules, 2016

- **Categories of hazardous waste**
- ignitability, or something flammable.
- corrosivity, or something that can rust or decompose.
- reactivity, or something explosive.
- toxicity, or something poisonous.

Ex. Solvent-based paints.

Pesticides and other garden chemicals. Batteries (for example car, mobile phone or regular household batteries) Motor oils from cars Petrol and kerosene. Cleaning and polishing chemicals..

## Hazardous Waste Management Rules, 2016

The Centre has amended the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 to include prohibition on import of solid plastic waste even in special economic zones (SEZ) and by export-oriented units (EOUs).

There are about 1080 registered recyclers; 47 cement plants permitted for co-processing; and about 108 industries permitted for utilisation of hazardous waste.

Unscientific disposal of hazardous and other waste through burning or incineration leads to emission of toxic fumes comprising of Dioxins & Furans, Mercury, heavy metals, causing air pollution and associated health-related problems. Disposal in water bodies, or in municipal dumps leads to toxic releases due to leaching in land and water entailing into degradation of soil and water quality.

## Construction and Demolition Waste Management Rules, 2016

- Around 25-30 million tons of C&D waste is generated annually in India of which only 5% is processed.
- It is significant that 36% of C&D waste comprises soil, sand and gravel.
- This waste impacts soil fertility and is a health hazard in urban areas.
- There is an urgent need to recycle C&D waste.
- This is because the rampant sand mining is already destroying river beds and eventually worsening the impact of floods.

## Construction and Demolition Waste Management Rules, 2016

The Supreme Court has stayed construction activity in States that do not have a solid waste management policy.

Segregating construction and demolition waste and depositing it to the collection centres for processing will now be the responsibility of every waste generator.

Permission for construction will be given only when the complete construction and demolition waste management plan is presented

large generators of waste will have to pay relevant charges for collection, transportation, processing and disposal, as notified by the concerned authorities.

## Bio-Medical Waste Management Rules, 2016

- Biomedical waste comprises human & animal anatomical waste, treatment apparatus like needles, syringes and other materials used in health care facilities in the process of treatment and research.
- This waste is generated during diagnosis, treatment or immunisation in hospitals, nursing homes, pathological laboratories, blood bank, etc.
- Total bio-medical waste generation in the country is 484 TPD from 1,68,869 healthcare facilities (HCF), out of which 447 TPD is treated.
- Medical waste is classified into four categories:-
  1. Infectious
  2. Hazardous
  3. Radioactive
  4. General

## E-Waste Management Rules

- Electronic waste is emerging as a serious public health and environmental issue in India. India is the “fifth largest electronic waste producer in the world”; approximately 2 million tons of e-waste are generated annually and an undisclosed amount of e-waste is imported from other countries around the world.
- E-waste is a popular, informal name for electronic products nearing the end of their “useful life.” Computers, televisions, VCRs, stereos, copiers, and fax machines are common electronic products
- Annually, computer devices account for nearly 70% of e-waste, 12% comes from the telecom sector, 8% from medical equipment and 7% from electric equipment.
- Compound Annual Growth Rate of electronic waste is 30%



## Plastic Waste Management Rules, 2016

- Millions of plastic bags end up in to the environment vis-a-vis soil, water bodies, water courses, etc and it takes an average of one thousand years to decompose completely.
- 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
- 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
- First time, responsibility of waste generators is being introduced. Individual and bulk generators like offices, commercial establishments, industries are to segregate the plastic waste at source, handover segregated waste, pay user fee as per bye-laws of the local bodies.

## Wetlands (Conservation and Management) Rules 2017

- Wetlands can be defined as lands transitional between terrestrial and aquatic eco-systems where the water table is usually at or near the surface or the land is covered by shallow water.
- They support rich biodiversity and provide wide range of ecosystem services such as water storage, water purification, flood mitigation, erosion control, aquifer recharge and others.
- But they are threatened by reclamation and degradation due to activities like drainage and landfill, pollution, hydrological alteration (water withdrawal and changes in inflow and outflow), over-exploitation resulting in loss of biodiversity and disruption in ecosystem services provided by them.

## Wetland

- There are almost 115 wetlands that are officially identified by the central government and of those 26 are identified as wetlands of international importance under Ramsar Convention which is an international intergovernmental treaty for conservation of wetlands. India is a party to the treaty.
- The union environment ministry has notified the new Wetland (Conservation and Management) Rules 2017. The new rule prohibits a range of activities in wetlands like setting up and expansion of industries, waste dumping and discharge of effluents. The new rules will replace the 2010 version of the rules.

## Wetland

- The new rules stipulate setting up of a State Wetlands Authority in each State and union territories.
- These authorities will need to develop a comprehensive list of activities to be regulated and permitted within the notified wetlands and their zone of influence, recommend additional prohibited activities for specific wetlands, define strategies for conservation and wise use of wetlands, and undertake measures for enhancing awareness within stakeholders and local communities on values and functions of wetlands.
- The rules prohibit activities like conversion of wetland for non-wetland uses including encroachment of any kind, setting up of any industry and expansion of existing industries, manufacture or handling or storage or disposal of hazardous substances and construction and demolition waste, solid waste dumping, discharge of untreated wastes and effluents from any source

## National Green Tribunal (NGT)

- National Green Tribunal is a statutory body established by a Government Notification using the powers of Section 3 of the NGT Act 2010. It has replaced National Environment Appellate Authority
- The objective of establishing a National Green Tribunal was as follows: To provide effective and expeditious disposal of cases relating to environment
- Giving relief and compensation for damages to person and property
- It has full time Chairman, 10 Minimum and 20 Maximum Judicial members 10 Minimum and 20 Maximum Expert members.

## National Green Tribunal (NGT)

- Chairperson- Should had been SC judge or Chief Justice of High Court
- Judicial Member: Should have been a judge of Supreme Court, Chief Justice of High Court, Judge of High Court
- Expert Member: Master of Science With PhD or Masters in Technology with 15 years of experience
- Once retired, the chairman or judicial members can not take up job related to matters of this tribunal for atleast 2 years.
- Appointment by Central Government

## National Afforestation & Eco-Development Board

- The National Afforestation and Eco-Development Board (NAEB), set up in August 1992, is responsible for promoting afforestation, tree planting, ecological restoration and eco-development activities in the country, with special attention to the degraded forest areas and lands adjoining the forest areas, national parks, sanctuaries and other protected areas as well as the ecologically fragile areas like the Western Himalayas, Aravallis, Western Ghats, etc.

## National Afforestation & Eco-Development Board

- FUNCTIONS

Ecological restoration of degraded Forests

Meet the fuelwood, fodder and other needs of the rural communities

Research in areas of regeneration restoration of forest

Action Plan for afforestation, tree planting, eco-development

- GREEN INDIA MISSION:

The National Mission for a Green India is one of the eight Missions under the National Action Plan on Climate Change (NAPCC). The Mission recognizes that climate change phenomena will seriously affect and alter the distribution, type and quality of natural resources of the country and the associated livelihoods of the people

- Objective: Increase forest cover on 5 million Hectare and improve quality on another 5 million hectare



## Joint Forest Management (JFM)

- Joint Forest Management is partnership in forest movement between State Forest Department and the Local Communities.
- Joint Forest Management agreement is drawn between them
- Forest protection becomes the joint responsibilities
- Villagers agree to assist in the safeguarding of forest resources through protection from fire, grazing, and illegal harvesting in exchange for which they receive non-timber forest products and share of the revenue from the sale of timber products.
- In 2010 the area under joint management was 2460000 sq km., with 112896+ committees with around 14500000 families getting benefit from Joint Management Programme.

## Social Forestry

- Social forestry means the management and protection of forest and afforestation of barren and deforested lands with the purpose of helping environmental, social and rural development.
- The term social forestry was first used in 1976 by the National Commission on Agriculture.
- The aim of social forestry is planting trees on all unused and fallow land (Farm land that has no crops on it)
- Social forestry reduces pressure on regular forests and thus helps in forest conservation and usage
- Plantations along railway lines and Highways and river and canal banks are done under social forestry

## National Bamboo Mission

- The Mission envisages promoting holistic growth of bamboo sector to increase the area under bamboo cultivation and marketing.
- Under the Mission, steps have been taken to increase the availability of quality planting material by supporting the setting up of new nurseries and strengthening of existing ones.
- To address forward integration, the Mission is taking steps to strengthen marketing of bamboo products, especially those of handicraft items.
- The bamboo plantations is promoted in farmers fields, community lands, arable wetlands, along irrigation canals
- Har Medh Par Ped

## Environmental Performance Index

- The 2018 Environmental Performance Index (EPI) finds air quality is the leading environmental threat to public health
- The 10<sup>th</sup> EPI report ranks 180 countries on 24 performance indicators across 10 issues categories covering environmental Health and ecosystem vitality.
- India has been ranked 177<sup>th</sup> out of 180 countries
- Switzerland has topped the Index, followed by France, Denmark, Malta and Sweden in EPI
- EPI score gives 40% weightage to Environmental Health and 60% weightage to Ecosystem vitality.

## Lighting a Billion Lives

- The programme is conceptualized and initiated by the Energy and Resources Institute (TERI)
- The main objective of the programme is to enable a billion lives to access clean and sustainable modern lighting solutions
- Target Group: Economically poor rural communities that either do not have electricity supply at all or suffer from erratic and insufficient supply and still have to resort to the use of environmentally unsustainable fuel for meeting their lighting needs.
- Solar lighting through solar lanterns
- The programme is running in 22 states

## Eco Mark

- Ecomark is a certification mark issued by the Bureau of Indian Standards to products conforming to a set of standards aimed at the least impact on the ecosystem.
- The marking scheme was started in 1991
- One of the purposes of the mark is increasing awareness among the consumers towards reducing environment impact.
- The mark is issued to various product categories and the development of standards for more products is in progress



## Urban Services Environmental Rating System (USERS)

- The system, Urban Services Environmental Rating System (USERS) is aimed at improving basic services like water supply, sewerage and solid waste.
- Tata Energy Research Institute (Teri) has developed a performance rating system for the civic agencies, to enable them to optimize resources and increase their efficiency.

## Biodiversity Conservation & Rural Livelihood Improvement Project (BCRLIP)

- Biodiversity Conservation and Rural Livelihood Improvement Project (BCRLIP) aims at conserving biodiversity in selected landscapes, including protected areas/critical conservation areas, while improving rural livelihoods through participatory approaches.
- Implementation of Joint Forest Management (JFM) and eco-development in some States has produced models of new approaches to provide benefits to both conservation and local communities.
- The project intends to build on these models and expand lessons to other globally significant sites in the country to strengthen linkages between biodiversity conservation and livelihood security of proximate communities as well as to enhance the local and national economy.



## National Clean Energy Fund

- The Finance Bill 2010-11 provided for creation of a corpus called National Clean Energy Fund to invest in entrepreneurial ventures and research in the field of clean energy technologies.
- The National Clean Energy Fund will be used for funding research and innovative projects in clean energy technologies. Any project/scheme for innovative methods to adopt to clean energy technology and research & development shall be eligible for funding under the NCEF.
- After 2017 Coal cess along with some other cess on pan masala, tobacco, aerated water etc is constitute GST Compensation Fund for 5 years

## NCEEF

- Till date IMG has recommended 55 projects have been recommended with total VGF of ₹ 34811.19 crore spread over years. For BE 2017-18, ₹ 8703 crore have been provided for in the Budget for NCEF projects.
- The coal cess was collected at ₹ 50.00 per tonne of coal since June 22, 2010 which was extended in Budget 2014-15 to ₹ 100.00 per tonne of coal w.e.f. 11.07.2014.
- The same was increased to ₹ 200.00 per tonne w.e.f. 01.03.2015 in the 2015-16 Budget. Further, the coal cess has been increased to ₹ 400 per tonne in the Union budget 2016-17 and the same has been renamed as “Clean Environment Cess”. Accordingly, the name of NCEF has been changed to ***National Clean Energy and Environment Fund*** (NCEEF).

- Thank you