

# Electronic Waste - Notes for UPSC Exam

Electronic waste is discarded electronic or electrical equipment and devices. Used electronics which are intended for reuse, salvage, resale, disposal or recycling are also referred to as e-waste. Informal or unorganised processing of e-waste particularly in developing nations can affect human health adversely and also cause pollution of the environment.

Also, the Environment, Forest and Climate Change Ministry has announced the E-Waste Management Rules 2016. These new rules replaced the earlier E-Waste (Management and Handling) Rules of 2011.

This topic, 'E-Waste' is important for the IAS Exam as it comes under the UPSC Mains GS-III paper. This article will hence talk in detail about E-waste and the E-Waste Management rules.

## What is E-waste in India?

As India is the fifth largest E-waste producing country in the world, aspirants should know that E-waste is a term used for those electronic products which are near to the end of their useful life.

Some examples of E-waste are:

- Computers
- Televisions
- VCRs
- Stereos
- Copiers,  
and
- Fax  
machines

Electronic scrap materials like CPUs consist of possibly harmful substances like lead, beryllium, cadmium or brominated flame retardants. The recycling and disposal of such electronic waste involve great risk to the workers and communities in developing nations. A lot of care must be taken to prevent hazardous exposure in recycling operations. Care must also be taken to prevent the leaking of harmful materials such as heavy metals from incinerator ashes and landfills.

## E-waste Management Rules in India

The Environment, Forest and Climate Change Ministry (MoEF&CC) have announced the E-Waste Management Rules 2016. These new rules replaced the earlier E-Waste (Management and Handling) Rules of 2011.

The new Rules make for stricter norms and are a part of the government's increased commitment towards environmental governance.

Highlights of the new E-waste Management Rules 2016:

1. It includes CFLs or Compact Fluorescent Lamps as well as other lamps with mercury, and similar equipment.
2. The Rules for the first time, bring producers under the ambit of the Extended Producer Responsibility or EPR, together with the targets.
3. Producers have been made accountable for e-waste collection and for e-waste exchange as well.
4. Additional stakeholders included are:
  1. Manufacturers
  2. Dealers
  3. Refurbishers and Producer Responsibility Organizations.
5. Compact Fluorescent Lamp (CFL) and other mercury-containing lamps have been brought under the purview of the rules.

India's Environment Ministry has notified rules targeting the wide range of groups like hotels, residential colonies, bulk producers of consumer goods, ports, railway stations, airports and pilgrimage spots. This is to ensure that the solid waste generated in their facilities are treated and recycled.

#### **Key Points of E-waste Management Rules 2016:**

- Local bodies with a population of one lakh or above were supposed to establish solid waste processing facilities within two years,
- Census towns below a lakh would be given three years to establish solid waste processing facilities
- Old and discarded dump sites would have to be shut-down or bio-remedied within five years.
- The rules on solid waste management have been amended after 16 years.
- Garbage management is the responsibility of municipal bodies, they would have rights to charge user fees and levy spot fines for littering and non-segregation.
- A transition period of two to five years would be in place beyond which fines would be imposed as per the country's Environment Minister.

#### **Central Pollution Control Board Report**

- Municipal authorities until 2013-14, have so far established only 553 compost and vermin-compost plants, 56 biomethanation plants, 22 refuse-derived fuel plants and 12 waste-to-energy plants.
- By 2031, municipal solid waste is supposed to rise to 165 million tonnes and, if unprocessed, would require 1240 hectares of land for disposal.

Approximately 62 million tonnes of waste are generated annually in India, of which only 11.9 million are treated and around half 31 million is dumped in landfill sites.

## **Web-Based Application on Integrated Waste Management System**

The application was launched by the Ministry of Environment, Forest and Climate Change in May 2016. The purpose of the web-based application is to better manage the waste. The application can also track the movement of hazardous waste and will also help in ensuring its proper management.

### **Key Highlights:**

1. 30000 industries out of 43000 industries dealing in hazardous waste have been mapped through this application
2. Enhanced transparency in the working of the Ministry and other Centre/State level regulatory bodies
3. Implement the concept of paperless/ green office;

### **The purpose of the application:**

1. Citizens can easily apply and get online permissions for import and export of certain categories of waste, which is for reuse or recycling or recovery or co-processing and ultimately to conserve our primary resource
2. It will make work related to web-based processing, generation and grant of various types of certification/ permissions to the entrepreneurs and industries easier
3. Provisions of online applications along with supporting documents/annexure have been provided
4. The application will keep a track of the number of authorization/ certificates granted under consent to establish, or consent to operate
5. The applicants can keep a track of their online application submitted by them and can also check the status of their application.
6. Generate database on waste generating/ processing industrial units under construction, or operation by consolidating the information regarding Consent to Establish, Consent to Operate and Authorization, import/export permission
7. Generate database on different categories of wastes generated viz hazardous, biomedical, municipal, electronic, plastic waste etc.

