



Extended Producer Responsibility

Electrical & Electronics Wastes

TATA Power Solar System Ltd. ,
Bengaluru

Lighting up Lives!



Understanding Our Limited Land Resources

Total Land Area on Earth:

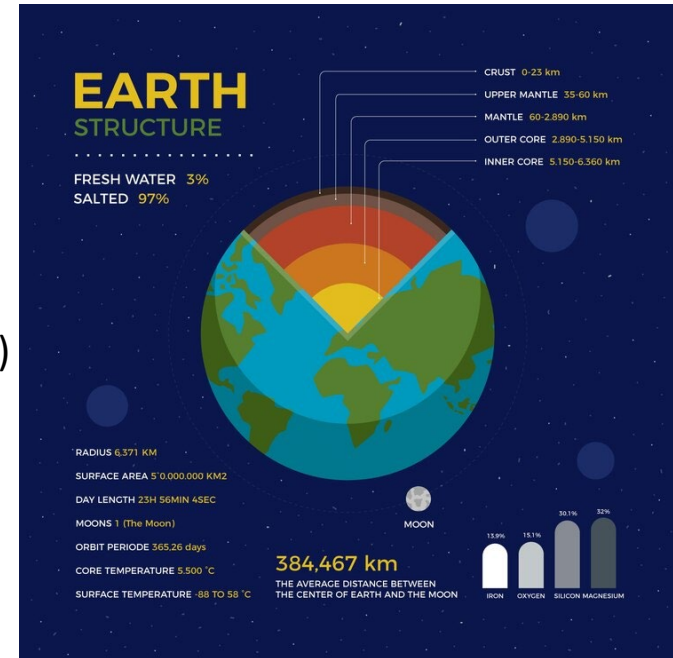
- Earth's surface area: 510 million sq km.
- Land: 29% (148.94 million sq km).

Percentage of Habitable Land:

- Habitable land: 71% of land area (104 million sq km).
- Remaining: Deserts (33%), ice-covered (13%), mountains (22%)

Challenges in Preserving Land for Future Generations:

- Urbanization
- Deforestation
- Pollution
- Climate Change



What is E-Waste?

E-waste means electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes.

In simple terms “E-waste can be classified as any electrical powered appliance that has reached its end-of-life or can not function as per requirement.



Types of E-Waste?



Information technology & telecommunication equipment



Consumer Electrical and Electronics and Photovoltaic Panels



Large and Small Electrical & Electronic Equipment



Electrical and Electronic Tools (exception of large- Scale Stationary Industrial Tools)



Toys, Leisure and Sports Equipment



Medical Devices (With the Exception of All Implanted and Infected Products)



Why E-Waste is a Problem

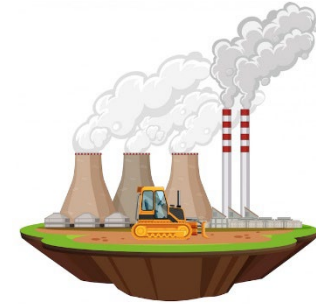
A) Environmental Impact



Toxic Components:
Harmful substances in e-waste contaminate soil and water.



Resource Depletion:
Valuable materials are lost instead of recycled.



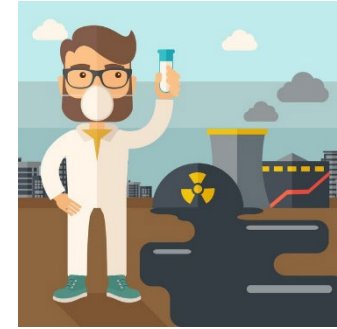
Greenhouse Gas Emissions:
Manufacturing new electronics increases carbon footprints.



Why E-Waste is a Problem

B) Health Risks Associated with Improper Disposal

- **Exposure to Toxic Chemicals:** Improper handling releases hazardous chemicals, causing respiratory issues, skin diseases, and other health problems.
- **Water and Soil Contamination:** E-waste toxins contaminate water and soil, leading to long-term health issues like neurological damage and cancers, especially in vulnerable populations





Lifecycle of Electronics



TAKE



MAKE



WASTE



REPEAT



Benefits of Managing E- waste:

- **Conserve Natural Resources:** Recycling e-waste keeps materials in use, reducing energy needed for mining and processing.
- **Save Landfill Space & Reduce Hazards:** Directing e-waste to recyclers prevents landfill accumulation and health hazards from chemical leaching.
- **Protect the Environment:** E-waste recycling ensures safe management of toxic substances like mercury, lead, and cadmium, preventing environmental pollution.



Save - Natural Resources



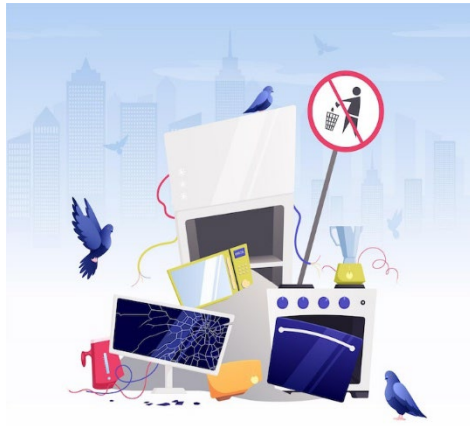
Save – Landfill Space



Save- Environment



Promoting Environmental Sustainability



Waste



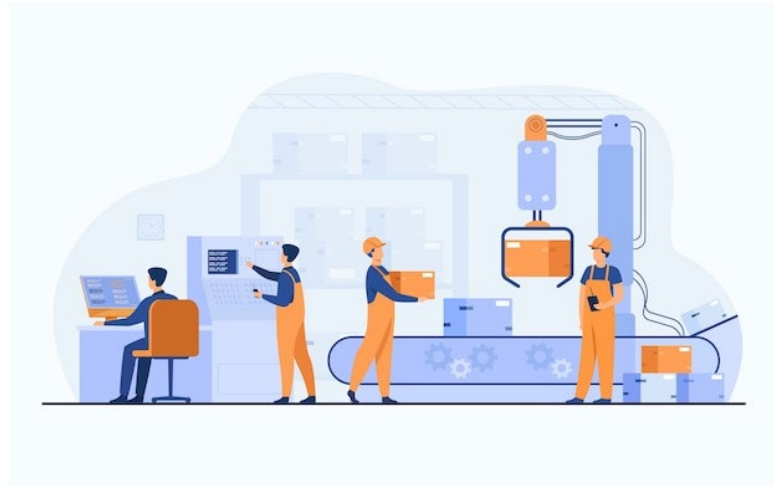
Resource



What is Extended Producer Responsibility (EPR) ?

“Extended Producer’s Responsibility” means the responsibility of a producer for the environmentally sound management of the product until the end of its life.

EPR is a policy approach under which producers are responsible for the treatment or disposal of their pre-consumer and post-consumer waste.





Why Extended Producer Responsibility (EPR) is Important ?

EPR aims to integrate environmental costs associated with goods throughout their life cycles into the market price of products.

- **Responsibility Shift:** EPR shifts waste management responsibility from consumers to producers, incentivizing eco-friendly design.
- **Lifecycle Approach:** Producers are responsible from product design through to post-consumer disposal.
- **Producer Actions:** Include taking back products, recycling, and reducing hazardous substances in product design.





What Indian Government is doing?

The Government of India has implemented Extended Producer Responsibility (EPR) as a mandatory legal requirement for managing critical waste, in response to the growing environmental concerns.

- EPR under E- Waste Management Rules 2022 as amended

The Rules mandate Producers to ensure Recycling of waste at end-of- life.



सत्यमेव जयते
Ministry of Environment
Government of India





Benefits of Extended Producer Responsibility

1. Environmental Benefits:

- Reduces landfill waste.
- Lowers pollution and greenhouse gas emissions.
- Encourages sustainable resource use.

2. Economic Benefits:

- Creates jobs in recycling and waste management industries.
- Reduces costs associated with waste disposal

3. Social Benefits:

- Increases public awareness and participation in waste management.
- Promotes corporate social responsibility.





Individual Responsibilities in E-Waste Management

1. Tips for Reducing E-Waste:

- **Buy Less:** Only purchase electronics that you need to avoid unnecessary waste.
- **Choose Quality:** High-quality products last longer and reduce the frequency of replacements.
- **Avoid Upgrading Frequently:** Keep using your current devices until they are no longer functional.
- **Borrow or Rent:** If you need electronics for a short-term purpose, consider borrowing or renting instead of buying.

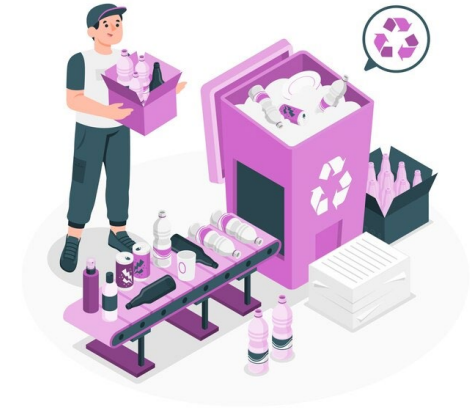




Individual Responsibilities in E-Waste Management

2. How to Properly Dispose of E-Waste:

- **Find Certified E-Waste Recyclers:** Locate certified e-waste recyclers in your area through online resources or municipal websites.
- **Retailer Take-Back Programs:** Major electronics retailers have take-back programs for old devices.
- **E-Waste Collection Events:** Many communities organize events where you can drop off your e-waste for proper disposal.
- **Donate:** Organizations like schools, non-profits, and shelters can often make use of your old electronics.





Individual Responsibilities in E-Waste Management

3. Importance of Recycling and Reusing:

- **Conserving Resources:** Metals, plastics, and glass recovered from e-waste can be used to manufacture new products.
- **Energy Savings:** Recycling one million laptops saves the energy equivalent to the electricity used by more than 3,500 homes in a year.
- **Reducing Pollution:** Proper recycling prevents hazardous substances like lead, mercury, and cadmium from contaminating soil and water.
- **Economic Benefits:** The e-waste recycling industry supports thousands of jobs and contributes to the economy by reclaiming valuable materials.





TATA POWER E-Waste Policy



Tata Power E- Waste Management Policy

The Tata Power E Waste Management Policy reaffirms its commitment to environmental protection by ensuring proper management of electrical and electronic waste.

Through this policy, Tata power will:

- Comply with all applicable local (Country, State, etc.) rules and regulations regarding the management of E- Waste in adherence to Commitment & Compliance Document of E-Waste (Management) Policy.
- In the absence of specific rules, regulations or legislation on the subject in any other country of operation, Tata Power shall follow the Indian Rules and Regulations regarding Management of E-Waste.
- Educate and sensitize employees on importance of proper management of E -Waste and the risks & hazards associated with their improper disposal, Explore possibility of extending usable life of items for internal and external use to minimize E- Waste generation.


Praveer Sinha
CEO & Managing Director

Date: 24 October 2018



Reference

1. E – Waste Management Rules 2022 - <https://cpcb.nic.in/e-waste/>
2. TATA Power E – Waste Policy – TATA POWER.COM
3. Image by juicy_fish on [Freepik](#)

Thank You!

