



# E-WASTE AWARENESS

TOLL-FREE NUMBER 1800-102-5679

E-WASTE RECYCLERS INDIA

(Government Authorized)



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# What is E-Waste?



**E-Waste** or Waste Electrical and Electronic Equipment comprises of all equipment using electrical or electronic parts.

As per E-Waste (Management) Rules, 2016, E-Waste is defined as '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. Such end of life may happen due to many reasons such as technology obsolescence, functional damage, higher repair costs or unneeded.

**E-WASTE** IS NOW THE FASTEST-GROWING WASTE IN THE WORLD



# Types of E-Waste



**Personal Computers**



**Centralized Data Processing**



**Laptops**



**Notebook Computers  
(PDA's)**



**Printers**  
(Including Cartridges)



**Copying Equipment**



**Electrical and Electronic  
Typewriters**



**User Terminals & Systems**



# Types of E-Waste



**Telex**



**Telephones**



**Cell Phones**



**Television Sets**  
(LCD and LED)



**Refrigerator**



**Washing Machine**



**Air-Conditioners**  
(Window, Split, Compressor)



**Fluorescent and Mercury  
containing Lamps**

## Is E-Waste Hazardous?

- If E-Waste is dumped and exposed to soil and moisture, a slow process of degeneration starts.
- In this process, ionic cells are formed between the metal and soil molecules leading to a slow leaching.
- This gradually poisons the soil and makes it completely infertile and hazardous to health.
- Also, many unorganized sector recyclers use crude methods for recovering precious metals.
- Due to such methods, there is a significant amount of land, air and water pollution that can lead to several health problems.

## Why should you recycle E-Waste?

Here are some reasons to recycle E-Waste -

1. It helps to preserve our natural resources.
2. It keeps toxins out of landfills, including toxins like mercury and lead.
3. Recycling E-waste is the socially responsible thing to do!
4. It frees up space in your office and home.

**E-Waste also contains valuable materials such as gold, silver, copper, steel, and other valuable metals it makes good sense to recover these materials instead of throwing these away.**

# E-Waste Generation in India



India generates about **2 million tonnes** of E-Waste annually now. <sup>(1)</sup>

India ranks **fourth** now in the world among the top e-waste-producing countries. <sup>(2)</sup>

It has been found that **80-90 percent** of India's E-Waste comes from the unorganized sector.

## ✓ Out of total E-waste volume in India:

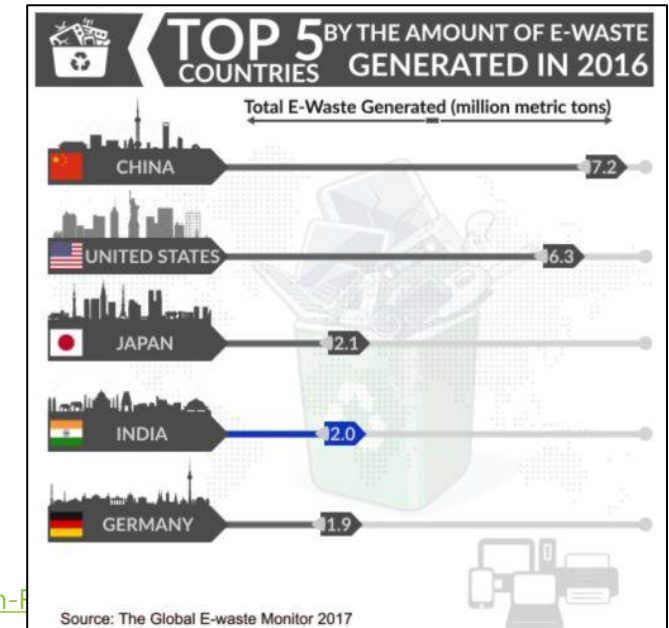
- Washing Machine, A/C's, Televisions, Monitors – **68%**
- Personal Computers, Laptops, IT Equipment – **20%**
- Imports of E-Waste - **10%**
- Cell Phones - **2%**

*Despite many units currently registered with Govt. of India, Ministry of Environment and Forest / Central Pollution Control Board, as E-Waste recyclers / preprocessors the entire recycling process more or less still exists in the unorganized sector.*

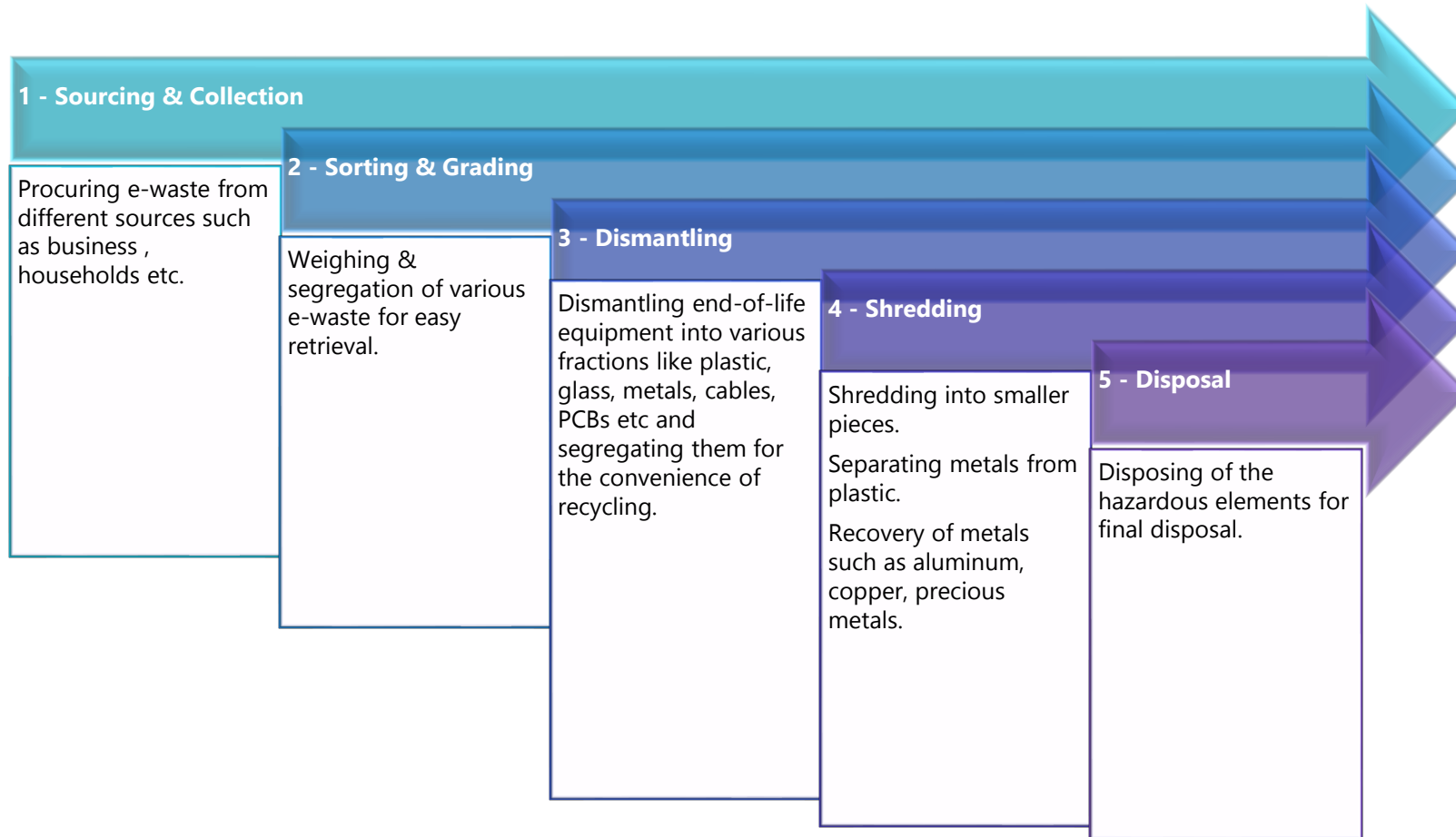
Sources

(1) - <https://twitter.com/Ewrecyclers/status/1213033036360515584/photo/1>

(2) - <https://www.livemint.com/Politics/DKDWemxZwRmWddDpfcfo1H/India-among-top-5-nations-in-ewaste-generation-P>



# Process of Recycling & Recovery



# Savings by Recycling



**Every ton of Aluminum recycled make the following savings:-**

- **6 Tonnes of Bauxite**
- **4 Tonnes of Chemical Products**
- **14 MWH of Electricity**
  - ✓ It saves 70% of energy to recycle plastic.
  - ✓ It saves 40% less energy to recycle glass.
  - ✓ Every ton of recycled paper saves 17 trees.

**Every ton of Steel recycled makes the following savings:-**

- **1.28 Tonnes of Solid Waste.**
  - ✓ 40% of water required in production.
  - ✓ 75% of the energy needed to make steel from virgin material.
  - ✓ Reduction of air emissions by 86%.
  - ✓ Reduction of water pollution by 76%.



# Advantages of Recycling



## Advantages of Recycling

Reduces Energy Consumption

Prevents Pollution

Reduces Global Warming – Decreases Emissions of Greenhouse Gases

Reduces Amount of Waste to Landfills

Protects Environment from Toxicants

Judicial & Sustainable Use of Resources

Create Green Jobs

Conserves Natural Resources for Future Generation

# Issues & Challenges



## ISSUES FACED IN PROPER DISPOSAL OF E-WASTE

**Legal Framework**

**Leaching of Heavy Metals from  
Landfills & Incinerators**

**Less Reuse of the Assets**

**Un-Awareness**

**Less Exposure**



Thank You