

What Are Waste ?

- “Substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of the law”
- **Disposal means**

“Any operation which may lead to resource recovery, recycling, reclamation, direct re-use or alternative uses.”



Classification

- **Domestic waste**
- **Factory waste**
- **Waste from oil factory**
- **E-waste**
- **Construction waste**
- **Agricultural waste**
- **Food processing waste**
- **Bio-medical waste**
- **Nuclear waste**





Solid Waste

Classification of Wastes

- **Solid waste-** vegetable waste, kitchen waste, household waste etc.
- **E-waste-** discarded electronic devices like computer, TV, music systems etc.
- **Liquid waste-** water used for different industries eg tanneries, distillaries, thermal power plants
- **Plastic waste-** plastic bags, bottles, buckets etc.
- **Metal waste-** unused metal sheet, metal scraps etc.
- **Nuclear waste-** unused materials from nuclear power plants

Classification of Waste a/c to their properties

Bio-degradable :-

can be degraded (paper, wood, fruits and others)

Non-biodegradable :-

cannot be degraded (plastics, bottles, old machines, cans, containers and others)



SOURCES OF WASTE



HOUSEHOLDS



**COMMERCE
AND
INDUSTRY**

SOURCES OF WASTE



Agriculture



Fisheries

Solid Waste in India

- 7.2 million tonnes of hazardous waste
- One Sq. km of additional landfill area every-year
- Rs 1600 crore for treatment & disposal of these wastes
- In addition to this industries discharge about 150 million tonnes of high volume low hazard waste every year, which is mostly dumped on open low lying land areas.

Source: Estimate of Ministry of Environment & Forest

Growth of Solid Waste In India

- Waste is growing every year
- In 1981-91, population of Mumbai increased from 8.2 million to 12.3 million
- During the same period, municipal solid waste has grown from 3200 tonnes to 5355 tonne, an increase of 67%
- Waste collection is very low for all Indian cities
- City like Bangalore produces 2000 tonnes of waste per annum, the ever increasing waste has put pressure on hygienic condition of the city

Source: The Energy & Resources Institute, New Delhi

Problems in Dealing With Solid Waste

- Education
- Collection of waste
- Technological interventions
- Institutions & regulatory framework
- Absence of mandatory standards for waste reduction
- Market action for waste reduction



Source: The Energy & Resources Institute

Hazardous / Toxic Waste & Dumping Site

- Industrialized countries have waste management problems
- Developed countries have strict environment regulation norms
- Most attractive option for them- to dump into developing countries

EFFECT OF WASTE IF NOT MANAGED WISELY

- Effects our health
- Affects our socio-economics condition
- Affects our costal and marine environment
- Affects our climate

