## SOLID WASTE AND ITS MANAGEMENT

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It is defined as:
Waste is any unwanted or useless materials.
Waste is also known as rubbish, trash, refuse, garbage or junk



#### **TYPES OF WASTE**

- Solid Waste
- Liquid Waste
- Gaseous Wastes
- Biodegradable waste
- Biomedical waste

Chemical waste Commercial waste Construction waste Consumable waste Composite

#### SOLID WASTE

#### It is defined as:

"Non-liquid, non-soluble materials ranging from municipal garbage to industrial wastes that contain complex and sometimes hazardous substances"



#### **TYPES OF SOLID WASTE**

- Broadly there are 3 types of waste which are as follows:
- Household waste is generally classified as Municipal waste
- 2. Industrial waste as Hazardous waste
- Biomedical waste or Hospital waste as Infectious waste

#### **MUNICIPAL SOLID WASTE**

- Municipal solid waste consists of:
- Household waste
- Construction and demolition debris
- Sanitation residue
- Waste from streets

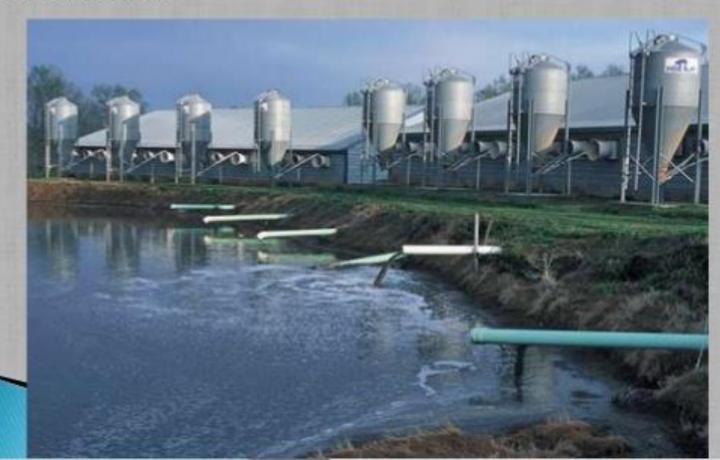
- Household wastes that can be categorized as hazardous waste include:
- Old batteries
- Shoe polish
  - paint tins
- Medicine bottles
- Clothes etc.



#### HAZARDOUS OR INDUSTRIAL WASTE

- Industrial is considered hazardous as they may contain toxic substances.
- Hazardous wastes could be highly toxic to humans, animals, and plants.
- They are:
- Corrosive
- Highly inflammable, or explosive
- React when exposed to certain things e.g. gases

In the industrial sector, the major generators of hazardous waste are the metal, chemical, paper, pesticide, dye, refining, and rubber goods industries.



#### HOSPITAL WASTE OR BIOCHEMICAL WASTE

- Hospital waste is generated during the diagnosis, treatment, or immunization of human beings or animals
  It may include wastes like
- Sharps
- Soiled waste
- Disposables
- Discarded medicines
- Chemical wastes



## **CAUSES OF SOLID WASTE**

- The increase in the quantity of solid waste is due to:
- Overpopulation,
- Affluence (material comfort)
- Technological advancement

### **EFFECTS OF SOLID WASTE**

#### A) HEALTH HAZARD

#### **B) ENVIRONMENTAL IMPACT**

#### A) HEALTH HAZARD

- If solid wastes are not collected and allowed to accumulate, they may create unsanitary conditions.
  Many diseases like cholera, diarrhea, dysentery, plague, gastro-intestinal diseases may spread and cause loss of human lives.
- In addition, improper handling of the solid wastes is a health hazard for the workers who come in direct contact with the waste

#### **B) ENVIRONMENTAL IMPACT**

- If the solid wastes are not treated properly, decomposition and decay may take place.
- The organic solid waste during decomposition may generate obnoxious (intolerable) odors.
- Ground water pollution
- Air pollution and global warming

#### WASTE MANAGEMENT

#### **4 R's CONCEPT**

Four R's (Refuse, Reuse, Recycle and Reduce) to be followed for waste management.



#### REFUSE

Instead of buying new containers from the market, use the ones that are in the house.

Refuse to buy new items though you may think they are prettier than the ones you already have.

#### REUSE

Do not throw away the soft drink cans or the bottles; cover them with homemade paper or paint on them and use them as pencil stands or small vases.



#### RECYCLE

 Use shopping bags made of cloth or jute, which can be used over and over again.



#### REDUCE

Reduce the generation of unnecessary waste, e.g. carry your own shopping bag when you go to the market and put all your purchases directly into it.



# **THANK YOU**