

# **Solid Waste Management**

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Waste is solid substances generated as a result of human activities, and, being no longer of value for the respective economic, physiological or technological process, are removed from it.

Solid waste in a broader sense is understood as any household, industrial and agricultural materials that have been used up.

Since such waste accumulates in the territories managed by municipalities responsible for its removal and storage, it is termed 'municipal solid waste'.

Basel Convention by UNEP define wastes **“as 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 national law”**.

## Indicators

The **volume** of waste varies whether it is urban or rural, income, stage of development of the country and region.

In **Asia**, about 90% of solid waste is collected in high income countries, versus 50-80% in middle income and 30-60% in low income countries.

The **composition** of waste generated varies according to the source.

Sources to be considered include residential, industrial, commercial, institutional, construction and demolition, municipal services (street cleaning, water treatment plants), and from manufacturing processes.

In general, the **trend** is that waste generation per person in high-income countries is much lower than in lower-income countries.

However, as incomes increase, the amount of waste increases.

Waste from high-income countries is less dense from more packaging and lighter materials being discarded, and has less food waste.

## Impacts

Many current problems with waste have resulted from **increased urban populations**.

Problems are often exacerbated because of **limited resources** and **low professional status** of waste workers.

**Failure** of an effective approach results in wastes dumped along roads, riverbanks, abandoned quarries, with the inevitable effect of **contaminating water supplies** as well as the whole **aquatic chain**.

Animals grazing on dumps can pass on **diseases via the food chain**.

People living near dumps are also at risk.

Air pollution is another factor to be considered.

## Types of Waste:

In general, the wastes may be classified into the following categories:

**Solid wastes** – These are the unwanted substances discarded by the human society. These include urban wastes, industrial wastes, agricultural wastes, biomedical wastes and radioactive wastes.

**Liquid wastes** – Wastes generated from washing, flushing or manufacturing processes of industries are called liquid wastes.

**Gaseous wastes** – These are the wastes that are released in the form of gases from automobiles, factories or burning of fossil fuels, like petroleum, and get mixed in the atmosphere.

### **Biodegradable waste:**

food and kitchen waste, green waste, paper (can be recycled);

### **Recyclable material:**

paper, glass bottles, cans, metals, certain plastics, etc.

### **Inert waste:**

construction and demolition waste, dirt, rocks, debris.

### **Composite wastes:**

waste closing, tetra packs, waste plastics such as toys;

### **Domestic hazardous waste & toxic waste :**

- medication or drugs,
- E-waste,
- paints,
- chemicals,
- light bulbs or fluorescent tubes,
- spray cans,
- fertilizers and pesticides and their containers,
- batteries,
- shoe polish materials.