
TYPES OF
WASTES

Waste is described as resources that are undesirable and unusable. Waste is considered to be something that has no value. Garbage is another term for the waste that is visible in our environment. Trash is mostly regarded as a type of solid trash, which comprises wastes from our homes (domestic waste), businesses (industrial waste), and schools (municipal waste).

Each type of waste requires specific management strategies to mitigate environmental impact and potential health hazards. In this article, we will learn about **different types of waste, the sources of waste, and how we should manage it.**

What is Waste?

> ***Definition of Waste:*** *Waste is any unwanted or unusable material that has been discarded after its primary use. It can be in the form of liquid, solid, or gas, but is generally solid.*

The debris that is seen in our surroundings is also referred to as **waste**. Most people classify garbage as a form of solid waste, which includes wastes from businesses, schools, and houses (known as municipal wastes, industrial waste, and domestic waste). In addition to what we produce at home, at school, and in other public places, waste is also produced by hospitals, factories, farms, and other sources. Human dependence is based on material items, all of which (almost) eventually degrade into trash.

Types of waste

Resources that are unwanted and unusable are referred to as waste since they have no use. The debris that is evident in our surroundings is also referred to as **garbage.** Wastes from our homes (domestic waste), businesses (industrial waste), and schools (municipal waste) are all considered to be forms of solid rubbish. There are two types of waste including:

(a) Solid wastes (b) Liquid wastes (c) Gaseous wastes

- **Biodegradable waste**
- **Non-biodegradable waste**

Biodegradable Waste

Biodegradable waste is organic material that can be broken down by microorganisms and other living things. Biodegradable waste can be recycled by using composting, aerobic digestion, or anaerobic digestion process. Biodegradable waste example is leftover food that originate from kitchen. Biodegradable trash are also known as moist waste. Composting this will yield manure. Depending on the material, biodegradable wastes take a while to break down.

Non-Biodegradable Waste

Non-biodegradable waste is waste that does not break down naturally. These materials can take a very long time to decompose, and some may never fully break down. Non-biodegradable examples are plastics, shattered glass, and old newspapers. Dry waste is garbage that is not biodegradable. Dry wastes are recyclable and reusable. Non-biodegradable waste effect on environment is irreversible. They are significant pollutants since they cannot break down on their own.

Categories of Waste

Wastes can be broadly categorized into various types based on their origin and composition. It can be categorized into:

- **Solid waste**
- **Liquid waste**
- **Gaseous waste**

Solid waste: These are the substances that human society discards as undesired. Wastes from industry, agriculture, biomedicine, cities, and radioactivity are among them.

Liquid wastes: Wastes produced during an industry's washing, flushing, or manufacturing process are referred to as liquid wastes.

Gaseous waste: Wastes that are emitted as gases from factories, cars, or the burning of fossil fuels like petroleum are referred to as gaseous wastes. They occasionally result in phenomena like acid rain and smog because they combine with other gases in the atmosphere.

Sources of Waste

The sources of waste originates includes households, industries, healthcare facilities, and agricultural activities. They all contribute to the waste that is accumulated on the Earth.

Industrial Debris

These are the waste products produced by companies and manufacturers. The majority of industries pollute rivers and seas by disposing of their trash there. Examples of Industrial waste includes glass, plastic, etc.

Commercial Waste

Waste generated from Schools, colleges, and offices comes under commercial waste. Paper, plastics are some of the examples of commercial wastes. Commercial waste also includes waste from manufacturing and industrial processes, such as scrap metal and construction debris.

Household Trash

Domestic wastes are the many waste products that are gathered from household chores like cooking and cleaning. Vegetable peels, leaves, excrement, etc.

Agriculture Wastes

Agriculture wastes are a broad category of wastes generated in the agriculture sector. Proper management of agricultural waste is essential to minimize environmental pollution and promote sustainable farming practices. Weed, husk and cow dung are some of the examples of this waste.

Decomposition of Biodegradable Waste

Biodegradable waste is organic matter that can be broken down into carbon dioxide, water, methane, compost, humus, and simple organic molecules. This process is natural and can be fast or slow. Various techniques can help in the breakdown and conversion of biodegradable trash into organic materials.

- **Composting:** Compost pits are one way to bury garbage to facilitate decomposition and conversion into organic matter. The wastes are composed by the activities of bacteria and fungus.
- **Vermicomposting:** With the help of red worms, organic debris is broken down into rich manure using this technique. Vermicompost is the term used for this manure.
- **Microbial Activity:** Microorganisms such as bacteria, fungi, and other decomposers play a crucial role in breaking down biodegradable waste. Bacteria are often the primary decomposers, breaking down complex organic compounds into simpler forms.
- **Role of Detritivores:** Detritivores, such as worms and insects, contribute to the decomposition process by physically breaking down organic matter and accelerating microbial activity.

Chemical Waste

Chemical waste is any excess, unused, or unwanted chemical that can harm human health or the environment. It can be solids, liquids, or gases that contain or are contaminated with flammable solvents, toxic materials, or corrosives. Chemical wastes could be dangerous or not. Hazardous chemical wastes can exhibit toxicity, corrosivity, ignitability, and reactivity. They can also be solid, liquid, or gaseous.

E-Waste

E-Waste refers to discarded electronic devices like old computers, mobile phones, and televisions. These devices contain hazardous materials like lead and mercury. Improper disposal of e-waste can harm the environment and human health. Recycling e-waste helps recover valuable resources like metals and reduces pollution. Proper management of e-waste involves recycling, refurbishing, and safely disposing of electronic devices. Governments and organizations promote awareness about e-waste recycling to minimize its negative impact on the environment.

Conclusion - Types of Waste - List of Sources of Waste

There are various sources of waste, including households, schools, offices, marketplaces, restaurants and other public places. Everyday items like food debris, used plastic bags, soda cans and plastic water bottles, broken furniture, broken home appliances, clothing, etc. are some of the examples of wastes. Types of wastes can be classified as solid, liquid, and gas. Solid wastes can be further classified as domestic, industrial, biomedical, municipal or radioactive. Each different type of waste has a specific disposal method.

Reference(s): Types and Sources of Waste - GeeksforGeeks