



**Editorial**

**Solid Waste Management**

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Solid waste management includes all activities that seek to minimize the health, environment and aesthetic impacts of solid waste. Solid waste can be defined as material that no longer has any value to the person who is responsible for it and is not intended to be discharged through a pipe. It is generated by domestic, commercial, industrial, healthcare, agricultural and mineral extraction activities and accumulates in streets and public places. The words 'garbage', 'trash', 'refuse' and 'rubbish' are used to refer to some forms of solid waste. The solid waste affects the environment in a number of ways. The impact of solid wastes on the surroundings can be sometimes drastic as it is clear from the following points:

- Uncollected wastes often end up in drains, causing blockages which result in flooding and unsanitary conditions.
- Flies breed in some constituents of solid wastes, and flies are very effective vectors that spread diseases.
- Mosquitoes breed in blocked drains and in rainwater that is retained in discarded cans, tyres and other objects.
- Mosquitoes spread diseases including malaria and dengue.
- Rats find shelter and food on waste dumps. Rats consume and spoil food, spread diseases, damage electrical tables and other materials, and inflict unpleasant bites.
- The open burning of waste causes air pollution; the products of combustion include dioxins which are particularly hazardous.

Solid wastes can be disposed to land or oceans. Solid wastes can also be recovered and reprocessed, a process popularly known as recycling. Before disposal or recovery form a part of the solid waste management system. The composition of the solid waste is not the same everywhere, so the selection of the right solid waste disposal method is a complex one. In rural areas, agricultural waste forms the major portion of solid waste, whereas in urban areas, plastic, paper, glass, metal, etc. are found in large quantities. Several disposal methods are being used in various parts of the world and the most prominent of these are discussed below:

**Screening**

Screening is a unit operation of separating a feed into oversize and undersize products. Solid like plastic, glass, metal, etc. are picked up and sent for recycling to the factories.

**Shredding and Pulverising**

First, in the processing is the size reduction, so that total volume and weight of wastes are reduced. Volume reduction helps in utilizing less land for waste disposal. It also reduces cost of transportation.

**Incineration**

Incineration is a waste disposal method that involves the combustion of waste at high temperature. Incineration and other high temperature waste treatment systems are described as 'thermal treatment'. In effect, incineration of waste materials converts the waste into heat, gaseous emissions, and residual solid ash. A waste-to-energy (WtE) is a common term for an incinerator that burns wastes in high-efficiency furnace to produce steam and electricity, and incorporates

modern air pollution control systems and continuous emissions monitors. This type of incinerator is sometimes called energy-from-waste (EgW).

### **Composting and Anaerobic Digestion**

Waste materials that are organic in nature, such as plant material, food scraps, and paper products are increasingly being recycled using biological composting and digestion processes to decompose the organic matter and destroy pathogens. The resulting organic material is then recycled as much or compost for agricultural or landscaping purposes. If the processes discussed above are implemented in a proper way, then the solid wastes can be appropriately managed and can be minimized too.

Being a citizen of this country, it's our responsibility to conserve our environment because – *We don't inherit environment from our ancestors, we borrow it from our children.*

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