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## **Guidelines for Waste Management at GSFC University**

India's urban population of 429 million citizens produce a whopping 62 million tonnes of garbage every year. Out of this, 5.6 million tonnes is the plastic waste, 0.17 million tonnes is the biomedical waste, 7.90 million tonnes is hazardous waste and 15 lakh tonnes is e-waste.

According to an estimate, 40% of municipal waste in the city is 'wet' waste, which can easily be composted and used as manure. Nearly 30% of the municipal waste comprises of plastic and metal, which can be sent to an authorised dealer for recycling, and about 20% of it is e-waste, from which precious metals can be taken apart and recycled. However, out of the total municipal waste collected, 94% is dumped on land and only 5% is composted.

Human and animal activities generate different kinds of wastes. These wastes are generally in solid form, and may cause pollution of land, water, and air unless treated properly and disposed off safely. The increase in the quantity of solid waste is due to over population, affluence, and technological advancement. The process of collection, transportation, treatment, and disposal can be grouped under solid waste management.

### **Objective for Waste management :**

It should be economically viable; should not create health hazard, should not cause adverse environmental effects and should not result in unpleasant sight, odor, and noise.

### **Effects of Waste Pollution :**

#### **a) Health Hazard**

- If solid wastes are not collected and allowed to accumulate, they may create unhygienic conditions. This may lead to outbreak of epidemics.
- Many diseases like cholera, diarrhoea, dysentery, plague, jaundice, or 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 putrefaction may take place, causing land and water pollution when the waste products percolate down into the underground water resources.
- The organic solid waste during decomposition may generate obnoxious odors.

- Stray dogs and birds may sometimes invade garbage heaps and may spread it over the neighbourhood causing unhygienic and unhealthy surroundings.

## Segregation of Solid Wastes :

As per the new Solid Waste Management Rules 2016, all waste generators should start segregating their waste into three categories – Biodegradables, Dry Waste (Plastic, paper, metal, wood) and Domestic Hazardous Waste (diapers, napkins, mosquito repellents, cleaning agents) before they hand it over to the collectors.

At GSFC University, suitable colour coded bins are placed at appropriate points in campus for waste segregation and collection. Instead of common dustbin, a small change such as keeping three dust bins, goes a long way in solving lot of the problems that once faces in waste management and disposal. The information pertaining to segregation and storage of wastes in colour coded bins at GSFC University is described below and it is compulsory for all stake holders to comply with same.

- **Green** is for organic wet waste. The green coloured bin could be used to dispose off wet / organic material including cooked food / leftover food, vegetable / fruit peels, egg shell, rotten eggs, chicken / fish bones, tea bags / coffee grinds, coconut shells and garden waste including fallen leaves / twigs or flowers / garlands.

Output : Manure

- Goes to compost pits.
- No paper, plastic, wrappers, disposable cups, etc please.

- **Blue** is for dry paper, plastic, bottles, cans. The blue coloured bin is used for segregating dry or recyclable left over. This category includes waste like plastic covers, bottles, boxes, cups, toffee wrappers, soap or chocolate wrapper and paper waste including magazines, newspapers, tetra packs, cardboard cartons, pizza boxes or paper cups / plates. Metallic items like tins / cans foil paper and containers and even the dry waste including cosmetics, hair, rubber, old mops / dusters / sponges.

Output : Recycled products

- Goes to recycling centre.
- No wet or contaminated paper or plastic that has food or oil, or wet liquid, etc.

- **Red** is everything else.

Output : Pollution

- Goes to a landfill and is obviously not good for the environment.
- Anything that you are not sure about, it is best to put in this category.



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