

A REPORT ON Solid Waste Mgmt AWARENESS Program

## NSS UNIT TEC



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LOCATION: TIRUMALA ENGINEERING COLLEGE

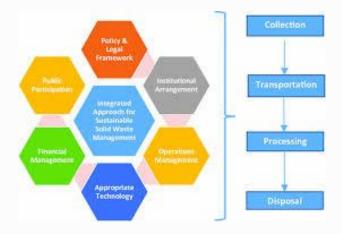
NUMBER OF PARTICIPANTS: 250

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Solid waste management can be divided into four key components: Generation, Storage and Collection, Transportation and Disposal.



**Generation :** Generation of solid waste is the stage at which materials become of no use to the owner and they wish to get rid of them.

**Storage and Collection :** Storage takes place after the materials have been discarded. Key here is to not discard items directly into family pits and poorly defined heaps close to dwelling areas, but an effective storage system must be at place, like the Government of India has directed municipal corporations to undertake Door to Door collection of Solid wastes under JawaharLal Nehru National Urban Renewal Mission (JNNURM). Whereas under Swacch Bharat Abhiyan, two different dustbins have been provided (Blue and Green Dustbins) which are used to segregate two different kinds of wastes, the green is meant for wet wastes while the blue one is for Solid dry waste.

**Transportation:** This is the stage when solid waste is transported to the final disposal site. There are various modes and methods which may be adopted depending upon availability and the volume of waste to be transported. In India, Solid wastes are generally transported first by small municipal vehicles to a dumping site, then big municipal vehicles carry them for final disposal, be it to landfills or to recycling plants.

**Disposal:** The final stage of solid waste management is safe disposal where associated risks are minimised. There are six main methods for the disposal of solid waste:

Land application: Open dumps or landfilling, Open dumps and landfills are uncovered/covered areas that are used to dump solid waste of all kinds. The waste is not treated nor it is segregated and thus it is also a place where a lot of insects and other disease causing organisms breed. They are generally located in urban areas. For landfills, a pit is dug where garbage is dumped and the pit is covered with soil everyday thus preventing the breeding of flies and rats. Open dumps are more harmful than landfills as



landfills after they are full can be used as a park/parking lot after covering it, but open dumps cannot be treated as such.

**Composting:** Composting is a biological process in which micro-organisms such as fungi or bacteria decompose in the presence of oxygen the degradable organic wastes. The finished product is very rich in carbon and nitrogen thus acting as a great medium for plant cultivation.

**Burning or incineration:** The process of burning solid wastes in a large furnace at a very high temperature whereby producing ash is called Incineration. It is only used as a last resort because it also produces a lot of toxic gases resulting in Air Pollution.

**Pyrolysis:** The process of burning solid wastes, but in the absence of oxygen in a large furnace at a very high temperature whereby producing charcoal, tar, methyl alcohol, acetic acid, acetone which can be used as fuels is called Pyrolysis.

**Vermiculture:** It is also known as Earthworm farming. In this method, Earthworms are added to the compost. These worms break the solid waste and along with the earthworms excreta, the compost becomes rich in nutrients.

**Recycling:** Solid wastes are also recycled, where the solid wastes are first taken to compost plants which are either set up by Government or by Private companies (under Corporate Social Responsibility), then they are either converted to fertilizers or they are recycled to produce various other items such as Plastics bottles, electronic instruments,



Explaining the IES Coordinator Mr. Annamaiah to sweepers how to use the compost box





Mr. Annamaiah, House keeping Venkatesh and college sweeper staff



Our college sweeper staff members





Annamaiah with College sweeper staff Members



Annamaiah with College sweeper staff Members





Housekeeping Venkatesh and Annamaiah with College sweeper staff Members