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A BRIEF STUDY ON WASTES-ITS DISPOSAL AND MANAGEMENT [Article ID: SIMM0080]

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INTRODUCTION

astes are unwanted or unusable materials. Waste is any substance which is discarded after primary use, or is worthless, defective and of no use. A by-product by contrast is a joint product of relatively minor economic value.

TYPES OF WASTE

- Liquid waste. Liquid waste refers to all grease, oil, sludges, wash water, waste detergents and dirty water that have been thrown away.
- Solid Waste
- Organic Waste
- Recyclable Waste
- Hazardous Waste

Toxic waste causes serious problem to our health and to the environment. Examples: dried paint, old bulbs and old batteries.

Read

E-waste consists of dismantled parts of computers, electronic appliances, mobile phones, TV, floppy discs, pen drives. In India E-wastes are dumped into unsafe and unauthorized dumping yards where they are dismantled manually and unscientifically, causing great environmental and health risks as they contain dangerous contaminants.

Hospital wastes or soiled waste Consists of various components containing infected human tissues or body fluids and are called bio-hazardous. The needles, surgical knives, and other surgical instruments called 'sharps' have to be disposed of carefully, but many a time we find this does not happen. Being pricked with infected needles can transmit diseases like HIV, Hepatitis B and C.

BODY/TEXT

Waste management term has been widely accepted as a sum of measures and solutions for waste avoidance, treatment, recovery, reuse and least but not last, final disposal with consideration to ecological and economical aspects.1 However, waste disposal to controlled landfills should only be a final option, adopted when further treatment of waste is neither economically nor technically possible. Unfortunately, uncontrolled waste dumping on the land is the first option for many regions in Asian continent due to very low costs. Over years, this was leading to two main problems: 1) dumped waste has generated liquid and gaseous emissions making the area out of use, and 2) dump sites rapidly became a breeding and hosting place for large amounts of disease-bearing organisms, posing a high threat to humans' health and safety living nearby the respective areas, and as well for the surrounding environment. Nevertheless, carefully managed sanitary landfills should replace the open dumps to significantly reduce the contact between the waste and the environment by concentrating the waste in a well defined and managed area [UNEP, 2005]



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For a good planning of a sanitary landfill, representative statistical data on waste quantity generated and its composition are needed. These design parameters are linked with the level of development of the local community, with the demographic predictions and also with climatic and geographic factors. Unfortunately, for most situations this is a difficult aim since the waste generation and composition varies significantly from country to country and from one area to another, thus it is not always possible to use much of the available data. Detailed and expensive studies have to be performed for a proper characterization of waste properties

Landfill closure starts when the planned landfill capacity is reached but the closure can also be done progressively, while still adding waste to new cells. However, a completed landfill is not going to become an abandoned place. The management of landfill gas, leachate, as well as environmental monitoring will continue for long periods of time (even 20-30 years or more) and this should be well considered at the planning stage because the costs for these activities will not be incurred on a revenue basis. The rehabilitation of a landfill means using the site for a variety of functions, among them being: Residential development (houses and annexes, green spaces) Commercial development (storage areas, parking lots, etc) Active recreation areas (sport) Passive recreation areas and open space (parks, green areas)

The garbage that we generate every day has not only increased in volume phenomenally, but has also changed its composition due to changes in our lifestyles and consumption patterns. For instance, there is now an increasing use of nonbiodegradable materials such as plastics, metals and glass, specifically in urban areas. Technological advancement has further brought in an increasing use of electronic items and gadgets. These are useful for us, but when discarded (known as E-Waste) they can be harmful to the environment and human health, particularly for the workers associated with this occupation.

EFFECTS OF UNDISPOSED OR UNATTENDED GARBAGE

Open and unattended garbage is a common sight in the market, streets or in the vicinity of our homes. Most often, it emits such a foul smell that we have to cover our noses with a cloth. Have you ever stopped to think how unattended garbage can affect our health and our environment? If you observe carefully, you will notice that when garbage is allowed to collect in the open for a long time, it attracts flies, cockroaches and other insects. It also attracts rats and stray dogs. In fact. moist or fermenting garbage, particularly when organic waste such as kitchen waste is thrown, becomes a perfect breeding place for flies. When we eat the food, which has been contaminated by these flies, we are likely to fall ill. Water and food borne diseases such as dysentery, cholera and gastroenteritis are some of the diseases that can be transmitted by flies. Moreover, since accumulated garbage emits foul smell, it also causes air pollution.

CONCLUSION

Wastes control and measures with latest technology is to be adopted on a periodic basis for proper carry out, otherwise it is a vast and elaborative process, so control and check with effective study will give fruitful and effective solutions to this mass project for the sake of people.