

# Methods Practices for Managing Solid Waste

Asim Ahmad

Department of Chemistry

Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India

**ABSTRACT:** *It is known that the waste being disposed of is used in a variety of ways. "The waste is gold if it is properly held. This paper discusses methods and practices for solid waste management in India. The management of solid waste is comprised of various types, such as industrial waste, agriculture, transport and municipal waste. Even though every type of waste is dangerous, it's municipal waste 'now known as solid waste' that can be properly managed without polluting other species and causing harm. The main focus of this paper is on urban solid waste. Different methods to manage solid waste from organic compost to energy generation have been described*

**KEYWORDS:** *Municipal SolidWaste, OrganicCompost, Pollution, Recycling, Environment concerns.*

## INTRODUCTION

India is the second most rapidly growing economy in the world and the world's second most populous country. There are around 852 million rural inhabitants and 325 million in urban areas. They live here. The level of urbanization has risen in 2026 from 26.5% to 38% in 50-60 years and is expected to increase to 44% in 2026. Rapid industrialization and population explosion in India have brought people out of towns that generate thousands of tons of MSW a day. India has a sharp contrast between its growing population and services and resources available. Solid waste management (SWM) is one of the services that India has a huge gap. There are no proper municipal waste disposal systems (MSW) to deal with the burgeoning waste volume. The current service of SWM is inefficient, expends heavily and poses a potential threat to public health and quality of the environment. The people of India currently live in times of unprecedented economic growth, rising ambitions and rapidly changing lifestyles, increasing public health and environmental expectations[1].

Failure to fulfil these standards could lead to a poor quality of life. If the consequence of pollution is air, water or ground - long-term reduction in the state of a country in productivity y lea ding to deterioration. There is also an important aspect of sustainable growth that is controlling emissions in order to minimize risk of ill health, protect the natural resources and add to our quality of life. Big cities collect about 70-90 percent of MSW made, while less than 50 percent is provided by smaller cities and towns. In open terrain and dumps over 91% of the MSW collected officially is landfilled[2]. The waste management hierarchy limits the uses of materials a d re to the ten environmental friendly. Source reduction starts with the processing of

waste and reusing materials to avoid entrance into the waste stream. Thus, waste is not created until the "reuse" process is completed. Once waste is produced, it must be stored. The most productive means of managing waste is the resource recovery from waste in the form of recycling and composting[3]. The majority of MSW's produced in India end up in landfills due to technological and economic limits on recycling, product design, insufficient source separation and insufficient markets capable of using all sorted matter[4]. In order to facilitate source isolation, municipal authorities should continue collaborating with their collaborators. As this is being introduced and recycled, steps should be taken to cope in future with unrecyclable waste.

### *Wastewater Management*

*1.1 Recycling:* The most successful approaches to avoid waste generation are minimizing and reusing. However, recycling requires a separate waste stream if the source is isolated or separated later after processing. However, the waste stream must be divided, whether the source is distributed or separated. The waste is obtained in a mixed form, and is called urban solid wastes because of weaknesses in the isolation of the source (MSW). It is hard to distinguish mixed waste. The material will then be recycled from paper, plastic, glass and metal. The separation of this material from SW is extremely energy- and time-intensive and is not commonly done. Mixing of waste thus results in the processing, by voluntary means, of a fraction of the residues that cannot be recycled nor composted[4].

*1.2 Aerobic composting:* Similarly, source isolated, organic wastes can be recycled and collected compost can be used as organic wastes 4066 Trends in the areas of farming biosciences 10 fertilizer. Bio-compost is the abundant in plants of macro-nutrients such as nitrogen, phosphorus, potassium and others. Tinging mixed waste by aerobic composites results in compost polluted mostly heavy metals by organic and inorganic matter[5]. Pollution by heavy metals in MSW Compost can affect public health and the environment, and contributes to the restriction of agricultural use. Therefore, mixed waste composting is not an alternative for efficient waste management, but it is not a matter for the public. In countries like India where more than 91 percent of MSW is settled and there are no other options, mixed waste composting is commonly practiced and better considered.

### *Municipal Solid Waste Management*

Under a fourth 5-year (1969–74) programme, the Government (GoI), by grants and loans to government governments to set up MSW composting facilities, initiated efforts to create better facilities for municipal and solid waste management (MSWM). In 1975, a high-level committee was formed by the GoI to investigate the issue of urban solid waste in India. It made 76 suggestions addressing 8 primary waste management sectors. Some are currently non-operational and the rest do not function in their entirety because of poor waste quality, poor equipment

choice, poor maintenance, high manufacturing costs, financial losses, low priority at the highest level and poor promotion activities (Selvam, 1996). A review panel formed by GoI found that the needless and avoidable mechanization of the plant raised the cost of organic manure production, while the municipality's lack of sales promotion activities resulted in failure of these plants.

In 1990, the Ministry of Environment and forests (MoEF) established the National Waste Management Board (NWMC) with as its main purpose the urban management of solid waste (UNEP, 2001). In a report, the NWMC recommended 22 municipalities to estimate the recycled waste amount and the disposal fate of the waste. In 1993 NWMC was formed as a national task force for plastic waste management. Steps to mitigate the harmful effects of plastic recycling on the environment and health.

In any culture, solid waste management is a vital service. Let us begin with a discussion on the content being handled, though, before beginning the method – solid waste. Solid waste applies to the range of waste, originating from animal and human operations, which is dismissed as unnecessary and inefficient. Solid waste is produced in a given area and can be treated in a variety of ways from manufacturing, residential and commercial activities. Deposits are usually categorized as sanitary, urban, building and degradation sites and hazardous waste sites. Materials like plastic, paper, glass, metal, and organic waste may be classified as waste. Harmful potential, including nuclear, inflammable, viral, hazardous or not toxic waste can also be defined by the categorization. Categories may also refer, whether industrial, state, commercial, residential, building and demolition, to the sources of the waste.

Whatever the nature, substance or hazard potential of solid waste, better environmental practices should be routinely handled. As a vital element of public sanitation in terms of solid waste disposal, this must be used in environmental planning. Solid waste management is characterized as a discipline that best addresses all facets of public health, recycling, economical, aesthetical, and engineering and other environmental concerns, relating to control of production, storage, collection, transport, transmission, processing and disposal of solid waste materials.

Solid waste management encompasses strategy, management, financing, infrastructure and legal roles. Solid waste management Solutions might encompass complex interdisciplinary connections between the areas of public health, urban and regional planning, political sciences, geography, economics, the environment, connectivity and conservation[6]. For residential and industrial farmers, urban and rural areas and developed and developing countries, solid waste management practices may vary. The city government agencies are responsible for the administration of non-hazardous waste in urban areas. In the other hand, it is normally the duty of those producing hazardous waste to handle them, according to state, national and, indeed, international authorities.

## LITERATURE REVIEW

India is the second fastest growing economy and the world's second most populous region. Indian population is estimated to grow from 1029 million to 1400 million between 2001 and 2020, up by 36% at 26 percent annually by 1.2 percent (2001 Indian Census). Routine population of about 742 million lives in rural areas and 285 million live in urban areas. The urbanization pace of the country grew from 17.6% to 28% in the last period .By 2026, 50 years and is expected to grow to 38%[7].Solid waste management encompasses strategy, management, financing, infrastructure and legal roles. Solid waste management Solutions might encompass complex interdisciplinary connections between the areas of public health, urban and regional planning, political sciences, geography, economics, the environment, connectivity and conservation[8].

## CONCLUSION

The impact of inadequate waste management methods on human health and the environment were never more important with the growing population and the accelerated speed of urbanization. The study found that current policies and facilities are insufficient to cope with the huge amount of MSW generated by the city of Delhi. The condition will hit critical levels with an almost three-fold rise in the MSW generation by 2021. MCD and the Delhi Government have recognized that the situation is critical and have drawn up guidelines for the disposal and care of MSW for the State of Delhi in the form of a master plan (2005-2021).

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