

# Environment Sustainability and Sustainability of Waste Management: A Case Study of Jhalawar (Rajasthan), India

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**Abstract:** The main aim of this thesis is to find out the status of municipal waste generation and its composition along with the relationship of economic condition of different inhabitants with per capita of waste composition in Jhalawar. Municipal waste (MSW) is a heterogeneous in composition and varied from place to place. Increasing population levels, rapid economic growth and rise in community living standard speeded the generation rate of municipal waste in Indian cities. The objective of this paper is to providing an insight of the stages of waste management i.e. Prevention, Minimization, Recycle, Reuse, Energy recovery, Disposal and its composition and amount in order to improve the current waste management practice of Jhalawar municipality and also to provides a further insight of feasibility and aids of adopting segregation at source and decentralization of waste management in order to provide better future

**Keywords:** Waste management, manufacturing bio plastics

## 1. Introduction

Municipal waste (MSW) sometime called as trash or garbage or sometime rubbish is a type of waste consisting of daily use items that are no longer in use to the people like household garbage and litters, sanitation residues, street sweeping, construction waste and demolition debris, treated bio-medical waste, and non-hazardous industrial refuse electrical and electronic waste.

### A. Vital concepts in waste management

The term waste may be used to refer to municipal waste and falls under seven categories: residential (household or domestic waste), commercial, institutional, street sweeping, construction and demolition, sanitation and industrial wastes (Rush B, 1999). Likewise, municipal waste refers to wastes from houses, streets and public places, shops, offices, and hospitals, which are very often the responsibility of municipal or other governmental authorities. Waste from industrial processes is generally not considered as municipal. However, because this waste finally ends up in the municipal waste stream, it should be taken into account when dealing with waste. Synonymous to waste are terms such as “garbage”, “trash”, “refuse” and “rubbish”.

## 2. Research design & methodology

The study was developed to understand the waste management system in a typical urban city in a developing country like India and to develop the framework to achieve higher level of sustainability. In order to gain knowledge of the system and to achieve higher level of sustainability, interviews were conducted in conjunction with other methods. The main approach employed for this study is a qualitative case-study of Jhalawar municipality, Rajasthan, India. Interviews, focus group discussions is used as the case study approach, which allows for general conclusions to be drawn from particular facts.

### A. Waste management in jhalawar

The purpose of this chapter is to establish the current waste situation in Jhalawar and it is divided into three parts. The first part describes the general structure of the Jhalawar municipality. The second part of this chapter describes the existing waste management system. The final part of this chapter focuses on public participation in waste management decision making in Jhalawar

## 3. Conclusion

### A. Summary, conclusion and recommendations

This research is carried out to the need for an assessment of Waste Management in Jhalawar, Rajasthan, India. The objectives of this research were:

- To explain the current waste management system and practices in Jhalawar.
- To find out the factors that influence waste management in the Jhalawar.
- To assess the newly proposed waste management system and
- To propose recommendations that are required for development of a sustainable waste Management system.
- To provides the need and feasibility of adopting segregation at source and decentralization of SWM.
- To examines how the community are involved in waste management in terms of policy formulation, implementation and evaluation.

Jhalawar is one of the oldest cities in the northern part of India and one of India's historic cultural capitals, an international tourist destination and a fast growing urban center suffer from a severe lack of waste collection and processing thus waste management is emerging as a major problem.

### *B. Concept of biodegradable plastic*

In Jhalawar mainly problem of non-biodegradable plastic which is approximate 20% minimize by throw of using biodegradable plastic. Biodegradable plastics are plastics that can be decomposed by the action of living organisms, usually bacteria. Two basic classes of biodegradable plastics exist. Bio plastics, whose components are derived from renewable raw materials, and plastics made from petrochemicals containing biodegradable additives which enhance biodegradation.

### *C. Environmental benefits*

There is much debate about the total carbon, fossil fuel and water usage in manufacturing bio plastics from natural materials and whether they are a negative impact to human food supply. To make 1 kg (2.2 lb) of polylactic acid, the most common commercially available compostable plastic, 2.65 kg (5.8 lb) of corn is required. Since 270 million tones of plastic are made every year replacing conventional plastic with corn-

derived polylactic acid would remove 715.5 million tones from the world's food supply, at a time when global warming is reducing tropical farm productivity.

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