



Solid Waste Management

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ABSTRACT

Solid waste is the useless, unwanted and discarded material resulting from day to day activities in the community. Solid waste management may be defined as the discipline associated with the control of generation, storage, collection, transfer, processing and disposal of solid waste. The present paper based on the study carried out on solid waste management practice by Nagpur municipal corporation. This study was also designed to study the composition of solid waste in Nagpur city. Nagpur is the third largest city and the winter capital of the Indian state of Maharashtra. It is the 13th largest city in India by population and according to an Oxford Economics report, Nagpur is projected to be the fifth fastest growing city in the world from 2019 to 2035 with an average growth of 8.41%. It has been proposed as one of the Smart Cities in Maharashtra and is one of the top ten cities in India in Smart City Project execution. Rapid economic growth, increasing population and change in living standards of city causes a high generation rate of different forms of wastes. Waste management and treatment is a major problem faced by municipal bodies all over the world especially in India. There are no specific centres for the disposal of e-waste and medical waste. Waste management techniques are not up to the mark as far as the increasing population of the city is concerned. This case study has discussed the sustainable solid waste management in Nagpur City, Maharashtra, India.

KEYWORDS-Solid Waste, Generation, Collection, Solid waste management, Composting, Disposal, Nagpur

1. INTRODUCTION

1.1 BACKGROUND OF THE STUDY

This study analyses the environmental and financial sustainability of solid waste management in Indian cities. It presents an assessment of the rapidly rising volume of municipal solid waste, its changing composition, the continuing practice of mixing biodegradable (wet) waste with dry waste at the source of generation, and the growing volume of plastic in the waste. The present system is focussed on collection and transportation of largely mixed unsegregated waste. Resource recovery from the waste and safe disposal of the residual waste in

scientifically designed landfills are grossly neglected. Rules have now been put in place for sustainable solid waste management, but the capacity to plan and manage the system and ensure the enforcement of the rules is a major challenge.

Nagpur is the winter capital and the third largest city of Maharashtra and largest city of central India. It has one of the highest literacy rates of 91.92% among all the urban agglomerations in India. NMC divides city in 10 zones and each zone is divided into several wards. As per provisional reports of Census India, population of Nagpur in 2011 was 2,405,665; of which male and female