



Research Article

Appraisal of Municipal Solid Waste Management, Its Effect and Resource Potential in A Semi-Urban City: a Case Study

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Abstract

Managing municipal solid wastes (MSW) is progressively becoming a major challenge in many cities of developing nations because of rapid urbanization and rise in population. This can be described by ineffective collection methods, inadequate coverage of the collection, processing system and inappropriate disposal. This paper presents the current state of solid waste management in a semi-urban city, its associated challenges and prospects that are within.

A field work that involves the characterization and types of the waste generated, and frequency of collection was carried out within the study area. Four locations where the major waste bins are located within the city were considered. A representative sample of 280 kg was used for the waste characterization, and the results show that about 64% of the wastes are recyclable with lots of organic waste that can be used as compost. The only dump site in the city was visited in order to obtain useful information concerning the present state of solid waste management. The study revealed that there is presently no investment made to the existing development plan to introduce a modern waste management system. The study suggests new approach that could be used by institutions and government agencies for MSW management to realize a sustainable and efficient sanitation, and possible resources generation potentials that could be harnessed from the waste stream.

Keywords: Semi-Urban City, Municipal Solid Waste, Waste Characterization, Effective Sanitation, Resources Potential.