

**A STUDY OF DOMESTIC SOLID WASTE MANAGEMENT IN THE
CITY OF COLOMBO**

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A Dissertation submitted to the Department of Management Studies in the Faculty of Humanities & Social Sciences of the Open University of Sri Lanka in partial fulfillment of the requirements of the Commonwealth Executive Master of Business Administration degree.

November, 2009

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ABSTRACT

Solid waste generation rates and waste composition are the basic information to plan and implement solid waste management systems. The objective of the study was therefore to identify the compositions of household's waste and analyze its generation rate, and assess solid waste management systems of the city and suggest some waste management options.

The study was conducted on randomly selected 95 households, which were expected to represent all categories of income levels (High, middle and low) from systematically selected houses from Borella area. Daily waste from those households was separated in to its components and the weight of each component was recorded. This process continued for seven consecutive days to have better averages per day domestic waste generation rate.

This study examines the overall pattern of solid waste generation, collection and disposal in Borella area; administratively known as District 3 in the municipal locality; by analyzing primary as well as secondary data. The findings show that about 117 tons of solid waste in a day is generated in District3, and proportionately about 776 tons are generated in the City of Colombo. The largest proportion, over 77%, of the solid waste was of residential origin which predominantly consists of organic items such as kitchen and garden waste. In general the amount of solid waste generated was found to be a function of household income, where the lower, the middle and the higher income groups generate 0.2 kg, 0.4 kg and 0.6 kg per capita per day respectively.

The main factors behind the lack of performance include, inadequacy of collection vehicles and labour, frequent breakdown of collection vehicles, absence of strong penalties and detailed rules and regulations, ordinance and public education concerning solid waste management.

The findings of the survey, in general, suggest that the Colombo Municipal Council, take the necessary measures in order to improve the City's solid waste management service with the implementation of a methodology to improve the constraining factors described above.

