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Analysis of Residential Solid Waste at Maharagama Urban Council Area

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Solid waste is an emergent problem that Sri Lanka faces due to the non – existence of proper organization system. However the rate of generation of solid waste increases with the increases of population, industrial development and changes of life styles of the people. Mismanagement of solid waste and its improper disposal lead to health and environmental problems. More seriously visible and invisible environmental damages occur due to uncontrolled open dumping of solid waste.

This research is focused on residential solid waste problem in Maharagama area. There are so many notations on the raise of the solid waste problem and its magnitude. But the lack of quantitative representation is an obstacle for taking actions against the problem. The objective of this study is to estimate the quantity of residential solid waste in the area and identify the factors affect solid waste problem in Maharagama area. Further this study attempts to find some solutions for this problem that were not typically extended yet such as recycling. A sample survey was conducted to collect data from 217 residential units and some other secondary data were received from the Maharagama Urban Council. Fit the distributions for consumption of organic and recycling materials and made confidence intervals for mean consumptions. Based on that made interval estimates for the residential solid waste.

Highest percentage of the waste in the selected area was organic which can be created compost. But most of the people did not compost their degradable waste due to many reasons such as lack of time, unawareness and poor interest. Further, monthly total usage of organic material per person in kg lies between 22.87 and 24.04 at 95% confidence level. According to the survey data, most of the residents use shopping bags, plastics, soft drink bottles which are not degradable materials. It was found that monthly numbers of newspaper consumption vary between 357,861 and 648, 784 at 5% significant level.

Keywords: Composting, Recycling, Residential Waste, Solid Waste