

**ESTIMATION AND CHARACTERIZATION OF MUNICIPAL
SOLID WASTE GENERATION IN THIRUKKOVIL
PRADESHIYA SABHA**

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ABSTRACT

Municipal Solid Waste is a growing problem in urban areas of Sri Lanka and this problem is aggravated due to absence of proper solid waste management systems at Local Authorities. The management of solid waste requires in depth studies on waste generation and characterization. Thus, an evaluation study was conducted to assess the generation and composition of solid wastes in Thirukkivil Pradeshiya Sabha, Ampara district. Solid wastes collected from households, shops and by Local Authority were quantified. Then, collected sample were separated into different material categories of wastes. The questionnaire surveying covered the 60 households in study area. Finally, data were analyzed using Microsoft Excel and SPSS.

The results stated that, the average waste generation per household is 2.24 kilogram of waste. Approximately 16.345 tons of solid waste generated per day by household sector and household sector contributes more than 45.64% of total waste generation from other sources. Correlation study revealed that the household waste generation shows positive correlation with monthly income and family size. The average composition of the household waste in weight basis was organic waste (92.94%), plastic (3.96%), metal (0.86%), glass (1.67%), and hazardous waste (0.57%). Average solid waste generation per shop was 1.56 kilogram, approximately 74.88 kilogram of solid waste generated per day and the average composition of the shop waste was organic waste (89.26%), plastic (9.10%), glass (0.94%), metal (0.62%), and hazardous waste (0.046%). The total solid waste collected by Local Authority was 250.65 tons per week. The average composition of the solid waste collected by Local Authority was organic waste (93.69%), plastic (2.73%), glass (1.03%), metal (0.56%) and hazardous waste (1.96%).

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