

A Comparative Study of Solid Waste Generation and Waste Management Practices in Rural and Urban Households in Guyana

***Farah Jairam¹ and Phillip DaSilva²**

¹Department of Environmental Studies. Faculty of Earth and Environmental Sciences. University of Guyana – Turkeyen Campus. Greater Georgetown, Guyana. *farah.jairam94@gmail.com.

²Division of Natural Sciences. Faculty of Natural Sciences. University of Guyana – Berbice Campus. Tain, Corentyne, Berbice, Guyana.

DOI: 10.52377/EENR6350

As the global population increases, consumption behaviour has resulted in the generation of excessive solid waste. Appropriate solid waste management practices are not yet available in many developing countries like Guyana. This study compared solid waste and waste management practices of urban and rural households. The overall objective of this study was to identify and analyse household solid waste categories, and explore the potential impacts of various factors that contribute to waste generation. The study employed a survey method approach using questionnaires and waste generation data sheets. Fifty-two households participated in the survey, comprising rural households in Strathspey and urban households in Bel-Air. The questionnaire focused on socioeconomic factors such as income, household size, and consumption behaviour; as well as current waste management practices, knowledge and awareness, attitudes to solid waste management. The data were analysed using descriptive statistics and Pearson correlation. The results revealed that household solid waste was positively correlated with population size and income. Consumption behaviours and active waste management practices also varied. Rural households produced 375 kg of solid waste per month, in comparison to 1,365 kg from urban households. Rural household waste was reused, composted, and burned, while urban household waste was deposited at landfills. Although respondents from both rural and urban households were knowledgeable and aware of solid waste and waste management practices, more members of rural households indicated a willingness to adopt appropriate management practices. A key recommendation emerging from this study is that policies and public awareness and education campaigns should be tailored to address the solid waste management needs of rural and urban areas.

Keywords: Household solid waste; solid waste generation; solid waste management