

Abstract

The quantity and characteristics of urban solid waste are a result of the interconnectedness of diverse factors at play including social, economic, and environmental factors. These directly influence the choice of management practice at the household or community level. Understanding these relationships can help policymakers and urban planners develop more effective waste management strategies. This study aimed at assessing solid waste generation and composition in Bungoma county urban centers to inform on strategies for effective management of urban waste. The study was carried out in Bungoma County urban centers, specifically Bungoma town, Webuye, Kimilili, Kapsokwony, Chwele, and Sirisia townships. The study applied a stratified sampling technique to select the urban and peri-urban centers while random sampling was used to select respondents in residential dwellings, business people, urban residents, and officers from government institutions including public health and environment, water, and natural resources were interviewed. Ancillary data was collected using questionnaires and interview schedules while historical data was obtained from the Bungoma County Department of Environment and used to validate observed data. Data was analysed using descriptive and inferential statistics and summarized using tables, charts, and graphs. Our findings show that the highest waste was generated from residential homes, commercial, and municipal services. In terms of composition, biodegradable waste had the highest proportion, followed by plastics and glass waste. Population growth could be a key factor in the increased generation of the waste.