

Abstract

Globally, temperature and rainfall play an integral role in the management of solid waste in urban areas. This is because many countries especially, the developing countries conventionally rely on both variables in the management of waste. However, the urban environment faces many threats as a result of challenged waste management practices due to these climate stressors. This research aimed to assess how temporal changes in temperature and rainfall influence solid waste generation. The study was carried out in Bungoma county urban centres, specifically Bungoma town, Webuye, Kimilili, Kapsokwony, Chwele, and Sirisia townships. The study applied a stratified sampling technique to select the urban and peri-urban centres 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 to validate observed data. Data was analysed using descriptive and inferential statistics and summarized using tables, charts, and graphs. The findings of the study indicated that rainfall and temperature significantly influenced the generation of solid waste.