

## Abstract

Plastic waste management has become a major public health and environmental concern in urban areas of many developing countries. Economic growth and population increase in the developing countries in recent years has caused an increase in utilization of natural resources that has led to unprecedented plastic waste generation. The uncontrolled plastic waste disposal has become a challenge in Africa and other developing countries due to insufficient or lack of human and financial capacities to remedy the situation. This study investigated the effect of county governments' strategies in place in the collection, transportation and disposal of plastic waste in Lodwar town, Turkana county Kenya. A cross-sectional descriptive study design was used. Purposive sampling was used to select 345 respondents from Lodwar town and the county government employees including key informants from public health department at the county was adopted. Data were then analyzed for descriptive statistics with the aid of Statistical Package for Social Sciences (SPSS) version 26. The study findings showed that majority (78.6%) of the residents disagreed that there is reselling of plastic materials to avoid generation of wastage. Further majority (38%) also disagreed that they are reusing the plastics for other purposes in their households. Additionally, majority (55.9%) still disagreed that the municipality has recycling company, which has assisted in plastic material recycling. However, on the other hand majority (71.6%) of the residents were not aware if there is a new technological recycling machine in the county. The study revealed that majority of the respondents disagreed that there are waste collectors and transporters in the town (mean= 1.95, standard deviation=0.99). Majority of the respondents disagreed that the municipality have recycling company which has assisted in plastic material recycling (Mean=1.51, standard deviation=0.89). Majority of the residents strongly agreed that handling plastic waste in Lodwar municipality is of great concern (Mean=4.59, standard deviation=0.84). The study concluded planning and coordination have a significant effect on plastic waste handling in Lodwar municipality. There are no enough waste collectors and transporters in the town also Municipality has no clear waste management guideline/policy. Recycling methods have a significant effect on plastic waste handling in Lodwar municipality. The study recommended that the municipality administration should come up with waste management guideline/policy that will ensure efficient and reliable wastage handling.