



## **Exploring public participation and level of engagement in solid waste management and control: a case of Kawaala Town Council, Uganda**

Faustin Buteera<sup>54</sup>

**Keywords:** *Solid Waste Management, Public Participation, Level of Stakeholder Engagement, Solid Waste Management Challenges.*

### **Introduction**

The term solid waste (SW) may be used to refer to municipal waste and it can be defined as the waste in solid-state generated by human activities in municipal centers. This includes soil, debris, metal scrap, paper, plastics such as (basins and cups), textiles and leather, broken bottles, glass as well as electrical and electronic equipment. It can be categorised into several groups. They are residential (or household or domestic waste), commercial, institutional, street sweeping, construction and demolition, sanitation, and industrial wastes (Rush, 1999). Whereas municipal solid waste refers to solid wastes from houses, streets and public places, shops, offices, and hospitals, which are very often the responsibility of municipal or other governmental authorities (NEMA, 2007); solid waste from industrial processes is generally not considered municipal.

---

<sup>54</sup> Faustin Buteera graduated in February, 2021 with Msc. Natural Resources Management from Nkumba University



## **Study objectives**


1. To investigate the nature of solid waste that was generated in Kawaala Town Council and their sources,
2. to investigate the roles played by the public and other stakeholders in solid waste management and control in Kawaala Town Council,
3. to identify major challenges associated with waste collection and disposal in Kawaala Town Council.

## **Methodology**

The study was qualitative and quantitative. The unit of analysis was the individuals who are the residents and non-residents of Kawaala Town Council in Wakiso district. The study targeted a population of 300 people and drew a sample size of 165 respondents from it. A set of self-administered questionnaires was prepared and administered directly to the respondents to fill. The respondents consisted of residents (household representatives) from each area, who were randomly selected. The respondents included businessmen and women, market vendors, residents, and a few non-residents who operated various businesses in Kawaala Town Council.

## **Key findings**

The findings showed that solid waste generation in Kawaala Town Council is very high characterised by




paper boxes, plastic bottles, banana peels, and other organic food waste, as well as polythene materials among others. The study revealed that public participation in solid waste management took several forms ranging from waste collection, sorting, transportation, and waste disposal. From the regression analysis on the roles of the public in solid waste management, the results showed an R Square value of 0.011 and Adjusted R Square value of 0.005, ( $R = 0.106$ ,  $R^2 = 0.011$ ,  $P\text{-value} < 0.005$ ) this indicates that level of education was a significant predictor of public participation in solid waste management and contributed 10% of the variation of participants' understanding of the need for sorting waste. A positive  $t$ -value of 9.364 with ( $P\text{-value} = 0.00 < 0.05$ ) indicates that a relationship exists between respondents choice of a waste control strategy. However, selling of plastics to recycling companies has been identified as a viable waste control method in Kawaala as viewed from a positive  $\beta = 0.118$ . This means that the educated individuals are more willing to sell waste to a recycling company than merely participating in sorting and collecting it.

The challenges in waste management included: lack of proper dumping sites, ignorance of some people of the dangers of indiscriminate waste disposal, distant disposal facilities, inadequate financing among others.

### **Key recommendations**

The study recommended that there should be stakeholder engagement and consultations at all levels of waste management to eliminate the gaps in information flow;



that there should be participatory and inclusive decision making about waste management; that Kawaala Town Council should strategically plan for sensitization of the public so that several solutions concerning solid waste management can be brought to the table; that Kampala Capital Authority should make sure that local people are assisted to understand the different alternatives so that they can make informed decisions on the choice of waste management strategies.

### **Key references**

Abba, A. H., Babagana, U. M., Atiku, A. A., & Burmamu, B. R. (2019). *Evaluation of Energy Potentials from Municipal Solid Waste: A Case Study of Yola, Nigeria. FUTY Journal of the Environment, 13(1), 36-45.*

Ahluwalia, P. K., & Nema, A. K. (2007). *A life cycle based multi-objective optimization model for the management of computer waste. Resources, Conservation and Recycling, 51(4), 792-826.*

Barr, S. (2004). What we buy, what we throw away and how we use our voice. Sustainable household waste management in the UK. *Sustainable Development, 12(1), 32-44.*

Bekin, C., Carrigan, M., & Szmigin, I. (2007). *Beyond recycling: 'commons-friendly' waste reduction at new consumption communities. Journal of Consumer Behaviour: An International Research Review, 6(5), 271-286.*



- Thomas-Hope; Elizabeth, Ed, (1998).Solid waste management: critical issues for developing countries. Kingston: Canoe Press.
- Tsai, W. T. (2007). *Bioenergy from landfill gas (LFG) in Taiwan. Renewable and Sustainable Energy Reviews, 11(2), 331-344.*
- Tumuhairwe, J. B., Tenywa, J. S., Otabbong, E., & Ledin, S. (2009). *Comparison of four low-technology composting methods for market crop wastes. Waste Management, 29(8), 2274-2281.*