

Municipal solid waste (MSW) raised serious concerns in Kampala in light of the rapid increase in volumes of unattended SW with the associated risks to human health, the steady increase in its handling costs and logistical difficulties, the scarce landfill spaces and the difficulty in finding suitable locations and getting public approval for new ones. The objectives of the study involved determination of the rate, quantity and composition of SW generated and its recycling potential; identify the current solid waste management (SWM) practices and challenges; determining households' willingness to pay (WTP) for improved SWM services and estimating the aggregate benefits in revenue of WTP.

Purposive sampling techniques were used, thus the divisions of Kampala were stratified according to already existing parishes. Sampling areas were stratified into three income groups of low, middle and high, using the quality of housing. Public survey through prepared questionnaires was the main source of data. Information from the survey was analyzed using descriptive statistics of Statistical Package for Social Scientists (SPSS). A dichotomous choice contingent valuation technique was used to elicit households' WTP. Results revealed that the rate of SW generation for Kampala was 0.56 kg/person/day with a total of 848,155 kg/day of SW being generated.

The SW composition generated was 83.6% vegetable/organic matter, 10.9% waste paper, 1.2% waste plastics, 0.3% waste metals, 0.1 % glass/cullet materials and 3.9% other materials, with high potential for recycling. Households (HHs) with access to central collection mainly used KCC skips, while those without, practiced open dump and bum (33.6%) and backyard dump and bum (26.2%). MSWM in Kampala city had many challenges, among which were: inactivity of KCC to support and mobilize effective MSW collection and disposal; inadequate equipment and SW handling facilities; inadequate funding of MSWM services; inadequate awareness of households due to inadequate sensitization; lack of cooperation among stakeholders in MSWM to solve a common problem and poor community attitude towards MSWM. 48.1 % of households in Kampala were willing to pay for improved SWM services with a mean monthly WTP of UGX 5,382 (USD 2.91).

The minimum WTP amount per month was UGX 100 (USD 0.054) while the maximum was UGX 70,000 (USD 37.84). The total WTP for improved MSWM services for low, middle and high household income groups, were respectively UGX 45,635,000, 320,411,000 and 643,523,000 (USD 24,667.57, 173,195.14 and 347,850.27) per month giving a total of about 200% of the total requirement for MSWM in Kampala. The factors which influenced WTP for improved MSWM services significantly were gender ($p < 0.001$), in which females were 52% more willing to pay than males, age of household respondents ($p = 0.012$), household size ($p < 0.001$), education level ($p < 0.001$), income level ($p < 0.001$), marital status ($p = 0.036$) and migration status of household respondents ($p = 0.045$). However, period lived in the area did not affect the WTP for improved MSWM services significantly ($p = 0.372$). In order to reduce per capita SW generation and increase households' WTP for improved MSWM services the study recommended increased sensitization by provision of routine sensitization programmes on the media. This would educate and instilling behavioral/attitudinal change in households towards MSWM and not only increase the numbers of HHs willing to pay for the service, but also maximize WTP amounts. The study also recommended installation of a waste-to-energy (WTE) plant in Kampala to generate electricity from the large quantities of MSW being generated in the City.