Introduction: Juba city is currently experiencing an intensified rate of environmental corrosion with household solid waste discarded along drainage channels, residential areas and commercial centers. Although a Japanese international cooperation Agency (JICA) in partnership with the ministry of environment has tried sensitizing the community on the dangers of poor household solid waste disposal, the problem is still persistent.

Objectives of the study: The main objective of the study was to determine household knowledge, attitude and practices of solid waste disposal in juba city, South Sudan.

Methodology: A cross sectional study of 377 household members was conducted in Juba city using quantitative methods of data collection using a researcher administered questionnaire and qualitative methods using a FGD. Regression model was used to estimate the odds ratios (OR) and their 95% confidence interval for solid waste disposal comparing them with the independent variables.

Results: Out of 300 households, three quarters (75%) were headed by males. 88% of the households had at least eight people while 46% had at least two children below five years.

More than half of households were in a slum area. More than a half (38%) of households did not know anything about recycling of some kind of solid waste. 46% of households agreed that sorting solid waste is not necessary. More than three quarters of households (78%) had a designated area for solid waste collection. Majority of households (61%) are paying for solid waste collection. Majority of households (61%) are paying for solid waste collection. Majority of households (39%) were collecting solid waste in polythene bags. Households mainly use trucks (40%) have move around the city. Being able to sort solid waste, culture norms, awareness of the importance of having designated areas for solid waste collection and location of household were significantly associated with having designated area where to collect solid waste.

Conclusion & recommendations: Solid waste disposal is still a challenge in Juba city as close to a quarter of households do not have an acceptable designated area to collect their solid waste. Household knowledge and attitude are a key determinant of appropriate solid waste disposal in Juba city. The government of South Sudan needs to; increase community awareness of the need to properly manage waste. Encourage the community on the importance of sorting waste and improve settlement to a better organized residential setting so as to reduce slum setting that increases the likelihood of improper solid disposal.