AN ASSESSMENT OF THE CHALLENGES FACING MUNICIPAL SOLID WASTE MANAGEMENT STRATEGIES IN KENYA: A CASE STUDY OF SELECTED URBAN CENTERS IN KIAMBU COUNTY

BY

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ABSTRACT

Solid Waste Management (SWM) is a critical function of any urban local authority. This essential service, however, is not competently performed by most urban centers in Kenya. The situation is particularly grave in urban centers in developing countries. However, concerns have been raised in the past that while the failures of existing SWM strategies is well recognized, the studies focusing on the underlying factors behind the failures of existing strategies (mostly landfills and incinerators) are scant or not well documented.

Therefore, this study was designed to assess the challenges facing solid waste management strategies in selected towns (Thika, Kiambu, and Juja) in Kiambu County. Specifically, it addressed the following key objectives, evaluate the strategies employed in Solid waste management (SWM); identify the socio-economic challenges facing SWM; Identify the policy, governance, institutional and technological challenges facing SWM in the county.

Towards this end, questionnaire containing specific measures relevant to the factors highlighted was administered to purposively selected respondents - waste collection workers involved in loading and transportation of waste, supervisors and direct waste collectors. In addition, county environmental and public health officers were also interviewed. The data generated was analysed using SPSS program, version 20. The baseline descriptive characteristics of the 5-item bio data were analyzed using cross-tabulations to establish frequencies of the challenges identified. Chi-squire (X^2) was used to test the relationship between solid waste problems and the explanatory/challenge variables. All analysis was conducted at 95% confidence intervals.

According to the findings, most respondents felt that solid waste management (SWM) strategies

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in Thika town, Kiambu and Juja town/centers are inadequate. Most of these towns have SWM strategic plans mainly on paper. Poor implementation of existing plans was cited as a major factor. Respondents also noted that waste collections is sporadic, a problem which was responsible for the large number of illegal dump sites in these towns. 71% of the respondents traced the problem to lack of adequate funds ($P<0.05$) while 68%, noted that clear policy guidelines on waste management ($P<0.05$) are inadequate. Other notable problems included lack of appropriate and adequate technology (47%) including solid waste recycling technological or alternative disposal technologies. 64% of the respondents stated that institutional factors including lack of trained personnel (74%), lack of qualified private contractors (57%), inadequate service coverage (84%), lack of vehicles and equipments (78%), are among the major problems.

Arising from the results, it can be concluded that SWM services in specific towns/centers in Kiambu County are still inadequate. In actual facts, the prevailing SWM strategies in Thika, Juja and Kiambu are a mere waste transfer system that lacks in the elements of sustainability. The problem can be traced to a range of challenges, including: governance, institutional and technological challenges. Therefore, specific solutions will have to include a revamp of existing legislations; institutional capacity building; adoption of new technologies, improved funding of SWM services and the application of participatory approaches to solid waste management strategies.

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