

Data Collection in Audit of Solid Waste Management

Elizabeth Augustino & James Pilly
SAI Tanzania

Introduction

- Large amounts of uncollected solid waste in the streets of commercial and residential areas has been the subject of increasing public concern.
- Our SAI used environmental data to illustrate, the government did not manage well the waste generated in big cities and regions. Specifically, the report describes, among others, the following:
 - The system for predicting the amount of solid waste generated and collected each year
 - Solid waste collection targets set in each councils so as to describe the goal fulfillment in respective councils
 - Fees collection targets, actual collection and the actual solid waste collection cost to illustrate goal fulfillment in solid waste fees collection
 - efficiency of solid waste collection in terms of solid waste truck and staff and
 - Monitoring system by central government was described in this report.

Findings

- more than 50% of the total SW generated in audited six (6) LGA were not collected
- poor and varying performance among service providers
- A peculiar and ill functioning financial system in SWM
- Targets for collection of solid waste are poorly established
- Lack of National standards and policies on SWM

Recommendations

- Establish a system of solid waste data management that could be reliable when estimating the amount of solid waste generated and collected each year.
- Should guide the LGAs to develop systems for SWM where the collection of realistic SW fees is a key issue.
- Improve the System for Monitoring Performance
- Separation of role of collecting SW fees and service delivery performed by SW contractors

Recommendations

- Separation of functions which involve procurement, service delivery and monitoring
- Procurement of service providers should be based on cost estimates of managing solid waste
- Set standards for solid waste management which have to be adhered to by all LGAs when they discharge their duties to ensure consistency of the services rendered
- Develop clear policies and regulations to guide SW in Tanzania.

Information obtained from the data

- Presence of Reliable system for predicting the amount of solid waste to be taken away each year
- Performance requirements for the service providers
- Inspections conducted on how the service providers carry out and manage their services
- Setting up and collection of Solid Waste fees
- National standards set for operation of SWM
- monitoring system at central government level

Type of data

- **Quantitative**

- Estimates of SW generated
- Estimates of SW collected
- Rates of SW fees
- Number of vehicles
- Number of staff
- Population

- **Qualitative data**

- Inspection conducted
- Monitoring system at central government level
- National standard set for operation of SWM

Sources of data

- National Bureau of Statistics (NBS)
- Vice President's Offices - Dept of Environment
- Tanzania Bureau of Standard
- Local Government Authorities (auditees)

Data collection

- Review of different documents
- Interviews
- Focus group discussion
- Physical observation of on going processes

Challenges & Solutions

- Data not readily/easily available
 - Carry out computation to establish the data and information e.g. estimation of SW generated in some cities based on a population & SW generation factor
- Data not reliable sometimes-conflicting
 - Estimating by computation
- Reliance on verbal information-some actions were not recorded
 - Information was corroborated through interviews with other actors in the field
- These challenges were explained in the report as limitations

Lessons Learned

- Scope was too broad - the audit took a long time to complete (August 2007 to July 2009).
- Where we could not get readily available data we tried other options e.g. estimates, computations, etc.

Impact of the audit

- National SWM Strategy has been developed by the VPO
- Estimates improved, i.e. amount of SW generated and collected
- Inspections are now properly reported
- Environmental officers have been employed for every LGA to monitor actions of the SWM officers

Thank You