

## Integrated Solid Waste Management in Nairobi City County: The Social Enterprise Framework.

*Accelerating solid waste generation in Nairobi has made its management a major challenge for the City County Government. This policy brief summarizes the underlying problem and makes recommendations on what needs to be addressed in order to achieve an integrated and sustainable SWM system in the city.*

### SUMMARY

Various legal and policy instruments at the municipal and national levels have stipulated the rationale and strategies for implementing sustainable Solid Waste Management (SWM) systems. However, unsustainable SWM prevails in Nairobi, just like in many other cities in developing countries. A baseline survey of SWM in Nairobi particularly in slums and other low income areas observed inadequate collection of waste from source points, haphazard disposal, reduced waste recovery and recycling. Weak linkages across different activities in the chain and a centralized-rigid administrative framework for SWM has also impeded an efficient SWM system in the city. In order to achieve an integrated and sustainable SWM system, the Nairobi City County Government (NCCG) needs to adopt a social enterprise development in SWM. This ought to comprise of business models for each SWM activity and integration of activities across

the value chain coupled with adequate sites and facilities. Devolving governance is also crucial in improving efficiency in SWM.

### 1. Legal and policy framework for SWM

National and municipal level policies and legislations have underpinned the need for sustainable SWM systems. The instruments specifically articulate the institutions and governance mechanisms for SWM, need for community participation, economic case for SWM, zonation of actors and spatial planning necessary for driving sustainable SWM systems. However, despite the existence of these robust policies and legislations, SWM in Nairobi is facing multiple challenges all the way from the administrative structure for SWM and cascading down to all the activities on the ground.

### 2. Situation Analysis

Due to inadequate and ineffective SWM services and facilities from NCCG

particularly in slums and low income areas of the city, **waste collection and disposal** services are provided through community based initiatives and other self-help efforts. In the course of undertaking these activities, individuals and groups encounter many challenges. This include lack of waste holding facilities and transfer stations and ineffective transportation of waste to the city dumpsite. Disruption by one-off government interventions such as the National Youth Service (NYS) slum cleanup also affect the performance of informal solid waste collection initiatives.

**Waste pickers** work in unhygienic, sometimes inhumane conditions as most of the waste they seek to recover is highly contaminated and disposed in insanitary locations.

**Middlemen** who act as the link between waste pickers and recyclers experience ineffective market linkages with waste pickers and recyclers.

**Recyclers** who operate informally, observed that many activities in recycling which include washing, sorting, shredding etc. are labour intensive leading to high production costs. They contend with unreliable supply of electricity, limiting their production time. Electricity tariffs are also not favorable for recycling. Waste processing technologies they use are also outdated for recycling operations, which coupled with poor working conditions exposes workers to various occupational hazards.

### 3. The underlying causes

The problems in governance and across the SWM activities that were discerned from the baseline survey can be attributed to three underlying causes. These are ineffective business models and lack of appropriate sites and facilities to promote efficiency across the chain of activities. A centralized governance framework based at counter headquarters was found unfavorable for SWM as many administrative and performance monitoring process from the top do not address the realities on the ground.

Lack of a framework to guide CBOs engagement in various SWM activities as well as CBOs deficiency in requisite managerial and technical skills has also impeded effective SWM. The situation is exacerbated by emphasis on privatization and capital projects for improving SWM with limited focus on promoting inclusivity in SWM.

### 4. Best practices from case studies

Case studies on social enterprise business models, planning for sites and facilities and decentralization derived from Kenya as well as from a developing and developed country reveal the following best practices as contributing to the success of the SWM interventions and enterprises:

- incorporating different SWM activities in a social enterprise and reinforcing linkages across the value chain
- cooperation and partnerships with different stakeholders in terms of

funding, research and development, product development and marketing, provision of infrastructure etc.

- enhancing community participation in the enterprise and in decision making
- spatial planning and establishment of appropriate sites and facilities for SWM

## 5. Recommendations

In cognizance of the community collective nature of SWM and the integral linkages involved across the different activities, a **Social Enterprise Framework** would be the best approach for achieving a sustainable SWM system in the city. In developing the social enterprise framework, the issues and challenges observed at the various levels of the value chain were considered. Suggestions made by various actors on how they want to be supported to make improvements in their SWM enterprises were also incorporated.

A Social Enterprise Framework for SWM will encourage the general community and community based groups to participate at different levels of the value chain, which consequently increase competitiveness and efficiency in SWM. The Social Enterprise Framework for SWM should incorporate the following components:

### (i) Social enterprise business model

A solid waste management process that promotes social enterprises need to incorporate key SWM activities including waste segregation, collection from source points, sorting, material recovery,

processing of waste to products and transportation of unrecyclable waste to a sanitary land fill. Each of this activity should have its unique business model and support mechanisms which among other things should comprise providing assistance to groups to form and register community based SWM social enterprises across the value chain, and fostering linkages among the key activities.

The SWM social enterprises business models also need to be complemented with training and other capacity building needs on issues such initiating and management and technical aspects of in each SWM activity.

### (ii) Spatial planning

Spatial plans for SWM facilities need to be developed at the ward and sub-county levels on the basis of their unique attributes including demographics, different land-use systems, economic activities, infrastructural facilities such as roads, railway line etc. and natural features such as rivers. These include permanent or mobile waste holding points in residential and commercial areas, sub-county transfer stations, composting facilities, sub-county recycling innovation hubs and sub-county waste to energy plants. A participatory site selection before establishment of facilities and co-management of facilities between NCCG and community based SWM social enterprises should also be embraced.

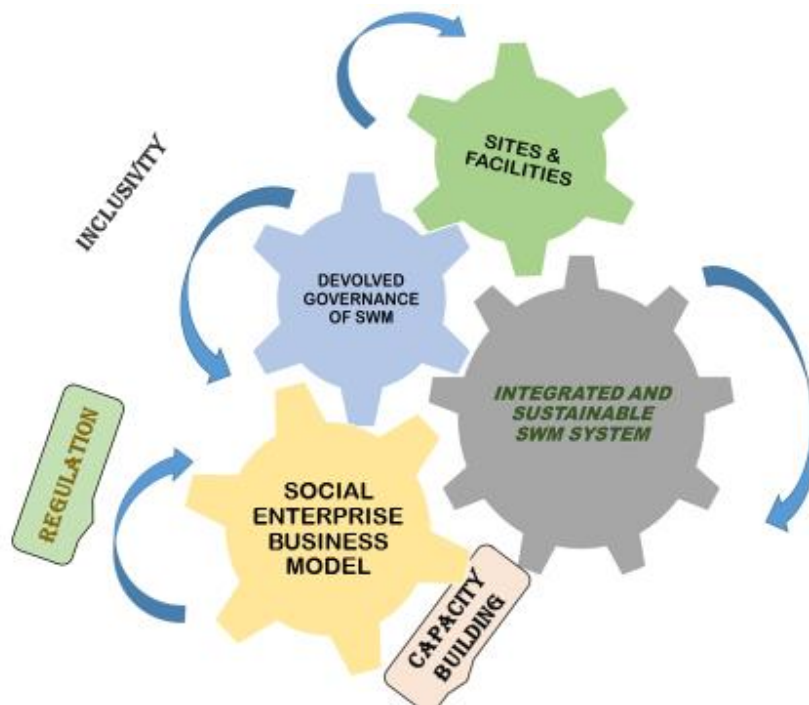
### (iii) Decentralization

Decentralized framework should aim at devolving functions from the county headquarter to the sub-counties or ward level where key stakeholders will be involved in key decisions with respect to spatial planning, zoning of actors and operations and monitoring performance at

ward or sub-county level. Planning for SWM should also be decentralized to enable priorities and budgetary allocations to reflect the unique needs of different parts of the city. County procurement opportunities also need to be devolved and aligned to the development of social enterprises.

A decentralized framework for SWM in the city should be structured as shown in the figure below.





*The Solid Waste Management Social Enterprise Framework*

## References

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