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A Working Observation on the Dry Waste Collection Centers in Bangalore

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Abstract

This paper studies the role of Dry Waste Collection Centers (DWCCs) in Municipal Solid Waste Management in Bangalore which were set up following LokAdalat's intervention directing the Municipality to set up these centers to enable ward level recycling. The Karnataka High Court further validated the direction by instructing the municipality to set up necessary infrastructures to facilitate ward level decentralized management of waste for all categories.

The DWCC is a hallmark of the triple bottom line of sustainable business operations— people, planet and profit, and modeled on three corner- stones – Social Considerations, Economic Considerations and Environmental Impact. Based on a zero-subsidy model for operations, the DWCCs are envisioned to meet the environmental objective of managing the MSW recyclable waste stream through responsible recycling. They are also expected to be a hub for social inclusion of the informal sector in the process, and ensure economic viability through market driven delivery mechanisms.

The paper traces the history of DWCCs and studies the operations of 32 DWCCs which have been in operation for more than a year and operated by the informal sector. In addition, the paper will also analyze the effect of dry waste diverted from landfills at the ward level and will provide recommendations to enhancing performance of these centers.

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1. Introduction

Bangalore, like any other city in India followed a centralized system for managing solid waste that off collection, transportation and land filling waste. Recycling within households were limited to selling newspapers and other high value waste to an itinerant buyer or local scrap shop, and the concept per se was not high in priority.

The few community level initiatives in the early 80s and 90s, promoting recycling and retrieval of dry waste did not receive any large scale promotion, till early 2009, when citizens groups got together to promote community based decentralized waste management systems. One of the prominent efforts of citizens level initiative was the conceptualization of the DryWaste Collection centers (DWCCs) in 2010, which stemmed after successful pilots of community based solid waste management system. A detailed study on contract costs revealed that the city was spending an estimated cost of 405 crores, for a total MSW contract of 89 packages for 198 wards.

An analysis of the garbage contract revealed that 48% was being spent on the SWM component of Door to Door collection, including bulk generators and about 52% was being spent on street sweeping. A cost benefit analysis of Decentralized waste management around by the Solid Waste Management Roundtable (SWMRT) the same year revealed that infrastructure investment in decentralized Waste Management like Market biomethanation, Garden/leaf composting and DWCCs could divert/ manage 53 tons per day about 25% and save the Municipality about 48.8 crores annually, which is about 12% of the total garbage cost.

SWMRT engaged with the LokAdalat, (People's court) a system of alternative dispute resolution (non-adversarial system) from mid 2010, which led to certain significant directions to the BBMP to implement decentralized waste management across the city, including construction of DWCCs, which was further endorsed by the Karnataka High Court in 2012.

Even though the Municipal Solid Waste (Management & Handling) Rules 2000, specified collection of segregated waste at source, the schedule II did not have any specification of dry waste per se. Bangalore was the first city to go ahead and have in place neighbourhood recycling centers. Four years since the LokAdalat's directions the city has still not embraced DWCCs, segregation at source is still not being practiced, acceptance from bureaucrats are still negative, considering that the DWCCs built have not taken into consideration expansion plans, many still lack facilities, or roofing is faulty, and integration of informal sector in managing the DWCCs only account for 4% of the total DWCCs in operation.

The paper is structured as follows. First, a general introduction on the concept of DWCCs, the principles and the parties involved, the evolution of the centers from a historical point of view, the profile of the 32 DWCCs managed by the informal sector and looks at the inflow of waste into the DWCCs, the net diversion rates for six months, along with the savings for the Municipality and will provide recommendations for efficient functioning of DWCCs in the city.

2. The Concept of DWCCs

Dry Waste Collection Centers (DWCCs) are important aspect of decentralized waste management and though the concept was modeled around the neighbourhood recycling centers, was based on the principles of waste hierarchy, to put in practice the three R's – reduce, recycle and re-use at the neighbourhood level. The DWCCs are to facilitate the collection/ buy-back of all dry waste from local residents, contract workers, and waste workers or scrap dealers, integrate informal waste workers into the operations of these centers and encourage/implement extended producers responsibility (EPR) of packaging materials that are not being recycled presently, thus serving as the cornerstone for the triple bottom line of operations – people, planet and profit.

Bangalore became the first municipality to set up DWCCs in the country.

2.1 Principles on which the DWCC were based

- Zero subsidy in operations by Municipality, and implementation of segregation at source by Municipality.

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