



Community waste management – possibilities of partnership

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Dhaka City is expanding rapidly, turning into a mega-city with the enormous growth of population. Solid wastes are being generated at the same pace, poses a great problem to manage. Rapid growth of industries, lack of financial resources, inadequate trained manpower, inappropriate technology and lack of awareness of the community are the major constraints of solid waste management for the fast growing metropolis of Dhaka. A healthy life, cleaner city and better environment are the logical demands for the city dwellers as the municipality is traditionally funded for solid waste services from municipal tax revenues. As the number of people in the city has grown, the financial burden incurred for this formal system of waste collection and disposal has grown even faster. Dumping sites in the city are more and more difficult to obtain and the trucking of wastes out of the city is more & more expensive. Due to limited finances and organizational capacity, it is hard for the municipality to ensure efficient and appropriate delivery of solid waste collection and disposal services. Soon the citizens has realized that the municipal efforts to solve the waste problem are not sufficient, they have started thinking to do something on their own initiatives. The communities have started to organize their own informal waste collection services for keeping their localities clean. In the community arranged system wastes are being collected from households and carried to the nearby municipal bins. The community managed House to House waste collection service is gaining momentum in Dhaka City and gradually expanded into a major environmental movement. More than 100 communities have started this participatory intervention in Dhaka City. The system has already increased garbage collection coverage by 20 percent, created approximately four hundreds jobs and proven to be appropriate for addressing local problems.

Waste Concern, a local NGO for the first time in Dhaka, has started community based decentralized composting with the organic portion of waste. The innovation is encouraging as local people has participated in source separation and door-step waste collection.

It is encouraging and prospective that the CBOs, NGOs and the entrepreneurs have already come forward with innovative programs to deal with the growing solid waste problem. The emergence of neighborhood waste collection or the community based recycling is not a complete or sustainable solution. To make the different initiatives sustainable, it is required to make a linkage between the formal and informal sector. Dhaka City Corporation has recently made an arrangement of GO-NGO partnership to

look for an economically sustainable solution for the management of wastes. The main objective of the program is

- to organize door to door collection of wastes for ensuring a better living environment
- to launch an awareness program on environmental sanitation and personal hygiene
- to convert the wastes into useful eco-friendly compost aiming at reduction of transportation cost, saving landfill space and promote economic benefit.

The community based composting project integrated with the door to door solid waste collection can not only solve disposal problem at source but also yield environmental, economical and social benefits both for the municipality and the community. The pilot program has been designed for judging the technical and financial viability for possibilities of future replication to other communities and for scaling up to a large volume.

Present state-of-art of Solid Waste Management in Dhaka City

Dhaka City Corporation is the only formal organization responsible for waste management in an area of 360 sq.km with a population of 7 million, estimated to generate around 3000 to 4000 tons everyday. Out of which 40-50 percent is collected and the rest left unattended. It is broadly estimated that between 14 –17 percent of the total municipal budget is used for solid waste management which is approximately Tk. 26/- per capita per year. The number of cleaners per thousand population in Dhaka is nearly 1. Waste densities and moisture contents are much higher, generally contains a high organic and low combustible matter.

Management of Solid Waste In Dhaka City

Normally the households bring their refuse to the nearby communal bins/containers located on the street side, while in some specific areas community has arranged house to house collection of garbage with their own initiatives and efforts. The household, commercial, institutional & medical wastes are deposited in the same waste collection bins located on the streets. Street sweeping is done manually and debris are loaded from the kerb-side into the handcarts and delivered into the collection bins. The wastes are

transported by fleet of open/closed vehicles from the old part of the city where the roads and the lanes are narrow. In the new part, demountable container system is working. Every vehicle has got specified areas and route through which they move to collect wastes. The uncollected wastes are dumped in open spaces, streets; clogs drainage system creating serious environmental degradation & health risks. The waste is presently being disposed off mainly on a lowland (Matuail) about 3 kilometer from the corporation area and a number of minor sites which are operated as uncontrolled manner without any proper earth cover and compaction. In Dhaka, waste which have market value are

being reclaimed or salvaged for recycling. Recycling contributes to resource conservation as well as environmental protection. Recycling of paper, plastic, glass, metal etc. plays a very important role in the economic sphere and a large number of poor people are dependants on it. The major component of municipal waste is organic food waste which has a potential value and can be converted into organic fertilizer is totally unexplored.

POTENTIAL IMPLICATION

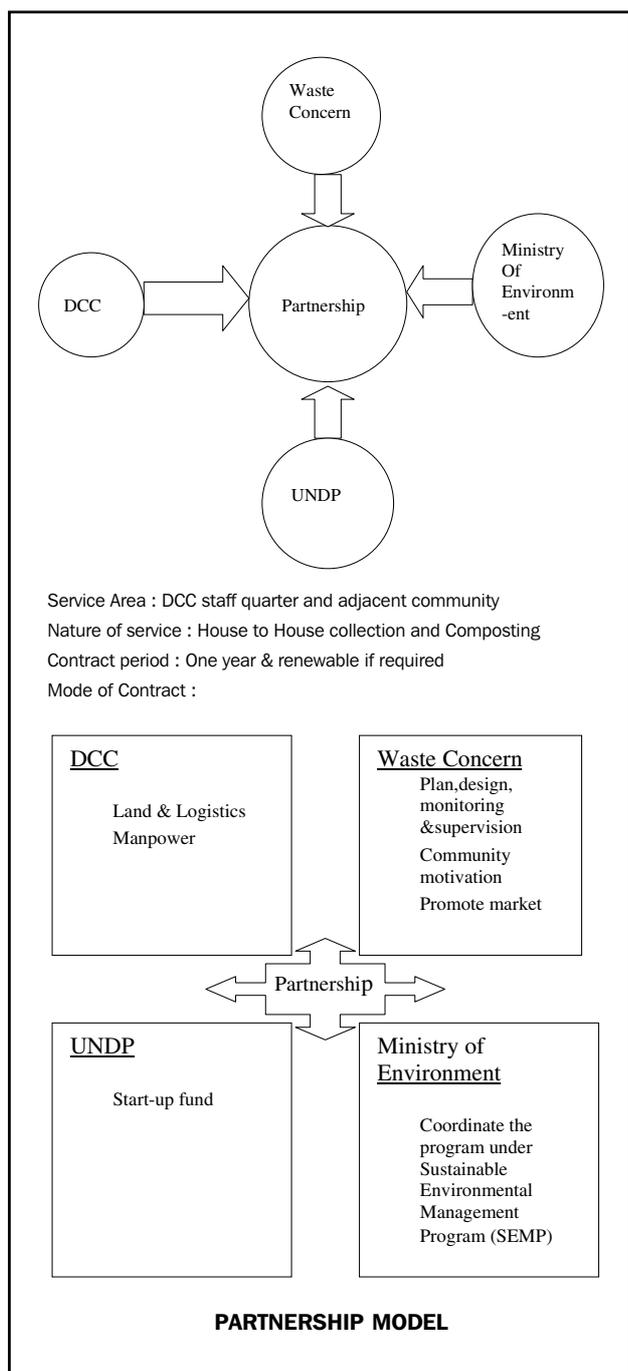
- Promote cleaner and healthier environment for the citizen
- Participatory approach, raising awareness, changing household practices
- Labour intensive, indigenous, creation of employment opportunities for the poor
- Enhance social mobility and integrity
- Create strong sense of community spirit
- Scope for dissemination of experiences to other communities
- Increase institutional competence and capacity
- Reduce burden of formal sector
- Facilitate in transferring indigenous technologies to municipalities and communities

CONSTRAINTS

- Land scarcity in community
- Municipal authority has shown lack of interest in providing valuable lands for recycling
- Municipal authority donot believe that micro-level initiatives can help to solve the solid waste problem in the city
- The initiatives are sometimes badly received by municipal authority as they fear that their activities are being undermined
- Municipality is less interested to put efforts in small scale recycling projects
- Chemical fertilizer is available to farmer, absence of wider market for organic composting
- Source separated waste is hardly to get from the households, poor understanding of the composting process by the community

POSSIBLE SOLUTION

- As land is hardly to get for recycling so entrepreneur should take lands on rental basis
- Recycling has both tangible and intangible benefits, so convince the municipal officials through demonstration of the recycling program.
- Compost should supply free of cost initially to the community for growing their interest.
- Source separated waste is essential for good quality compost so households are motivated accordingly
- The importance of organic fertilizer should be well demonstrated to the farmers



LESSONS & RECOMMENDATIONS

- Municipal ordinance on waste management should incorporate waste recycling as a disposal option.
- Modification of municipal ordinance is needed to accommodate inclusion of NGOs/CBOs and micro enterprises into the main stream of swm
- Awareness in waste segregation, recycling, reuse should be raised through public campaign and media demonstration.
- Community based organizations should be given support to organize cooperatives/microenterprise to smoothly handle small scale waste recycling.
- Ministry of Agriculture should promote good market for organic compost.
- Municipality should facilitate community based innovative program rather than capital intensive projects.

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