



Micro-enterprise development for primary collection

Mansoor Ali, Andrew Cotton and Jo Beall, WEDC

URBAN GOVERNMENTS IN many developing countries are facing serious problems with the management of solid waste. Service quality is generally poor, and costs are spiralling, often with no effective mechanisms for improved cost recovery. Two key alternatives to the present impasse are currently favoured: decentralized approaches and privatization. This paper proposed to identify and explore findings about the development of micro-enterprise for primary collection, working from a thorough understanding of existing systems and practices and to locate those in a broader framework of private solutions for solid waste management.

The main hypothesis of the paper is that moves towards privatisation of primary solid waste collection should be designed from a thorough understanding of the complex interactions between a wide range of existing actors. A secondary hypothesis is that involvement of existing sweepers will improve the efficiency of primary collection.

The paper is an output from a DFID funded research commenced in April, 1996 and data and information has been collected from three cities of South Asia.

Introduction

Under the present set-up the municipal corporation employs a large team of sweepers. Teams of sweepers are designated to each councillor's (or Ward Commissioners) electoral ward in different areas to perform street sweeping. There are particular lengths of streets assigned to each sweeper on which a sweeper needs to perform street sweeping as their official duty while the sweepers collect household waste as the private work. The municipal function starts from the street sweeping and in the area where the households feel a need for primary collection they have to make informal agreement with the sweepers on duty or a self employed private sweeper.

The primary collection in the South Asian context is the process of waste removal from the houses and transporting it to the nearest transfer point. Primary collection is perhaps the most important and complex stage in the solid waste management stream in the South Asia due to the following reasons:

- Municipal corporations in South Asia spend a very large proportion of their operations budget on the primary collection, typically more than 60 per cent of the total operational budget.
- The workforce involved in the primary collection tasks represents more than 80 per cent of all the municipal employees in solid waste management.

- The workforce involved in primary collection often represent the poorest and most vulnerable groups of the urban population.
- Primary collection is important for the health of populations since a poor primary collection means exposed waste in the vicinity and an un-healthy environment.
- It has been seen that most community initiatives are up to the stage of primary collection.

Micro-micro enterprises

The literature review suggests that solid waste management in low income developing countries benefit from a wide variety micro-enterprise activities such as informal recycling.

- a) A business, often family based or a co-operative, that usually employs fewer than ten people and may operate informally (IETC, 1996).
- b) Micro-enterprises are generally considered as having a relatively small share of its market, managed by its owners and often independent of outside controls (Burns, 1996).
- c) Small and micro-enterprises (including entrepreneurs) buy inputs at a fixed price but sell outputs at an uncertain price in the hope of obtaining adequate margins. It faces three types of uncertainties: market, customer and aspirational uncertainties (Storey and Sykes 1996).
- d) A micro and small enterprise is defined as a service delivery or production business, usually low capital intensive and consisting of an individual or up to about 20 persons formally registered or operating informally in an area (UMP, 1996).

The definitions above assume a certain organizational structure and cover a broad range of activities in the registered and non-registered sectors. The following identifiable criteria was developed to define micro-enterprise, however, 'entrepreneurship' may change from one group to another:

- The service provider is profit motivated and so the service is charged and non-payers may be excluded.
- The service is marketed by an individual or a small group to a small area such as a neighbourhood, or group of houses with a total number of units not more than 1000.
- The service provider will manage the service and invest in the organization, keeping in view all the market risks.

- The service provider may take the triple role of labour, manager and owner of the enterprise.
- The service provider has the major role in hiring and firing the workers, fixing their remuneration, negotiating new contracts and sub-contracts.

Keeping in view the above criteria it was found that municipal and self employed (private) sweepers (waste collectors) are the smallest and fundamental unit of the primary collection enterprise in the study cities. Within this first form of micro-micro-enterprise we have identified the following continuum of activity:

1. Municipal sweepers as wage earners - those who are earning a regular income through permanent or temporary employment with the municipal corporation.
2. Municipal sweepers doing private work - those who are earning a regular income through permanent or temporary employment but also supplementing their income through private waste collection and other works.
3. Private sweepers as 'survivalists' - those without any municipal job who work independently. This constitutes the lowest level of micro-enterprise - the 'survivalist' sector.
4. Municipal and private sweepers as emerging entrepreneurs.
5. Municipal supervisors as emerging entrepreneurs - since they give permission to and often manage and facilitate private work by municipal sweepers and in return get payments.

The types (2) to (4) in the continuum were seen as the fundamental unit of micro-entrepreneurship in primary collection: the sweeper's system from the perspective of sweepers themselves. The entrepreneurship identified is that of private work, whether it is combined with or exclusive of paid waged work. Further, private work by municipal and private sweepers differentiates itself from just paid waged labour in the following way:

- the sweeper 'markets' himself/ herself' to users;
- the sweeper negotiates his wages, which are not fixed;
- s/he is the owner-manager-labour for the work;
- s/he has full discretion to refuse the work, take new work and sub-contract;
- s/he arranges the inputs to produce a service output;
- there are elements of un-certainty analogous to small and micro-enterprises;
- there are evidences of private-personal investment such as buying a donkey cart for waste collection.

The The sweeper's system of primary collection is basically a set of three verbal agreements:

- between sweeper and the households;
- between sweepers and his supervisor (if he is a municipal sweeper);
- between sweeper and fellow sweepers.

The households made an agreement with sweepers to collect waste against a certain agreed payment supplemented

by un-agreed tips, gifts, food etc. The sweeper also needs an informal permission from municipal supervisor to perform private work and also agree to pay regularly a proportion of his private earnings. The third agreement is among fellow sweepers not to compete with each other and do not offer services in each others territory. Sometimes, the rights to perform private work are exchanged, bought and purchased among sweepers (for further details of sweepers system see Ali, 1997, Beall, 1997 and Streefland, 1979). The entrepreneur in this type of system is clearly the sweeper.

The second broad category of potential micro-enterprises emerge when people organize themselves and collectively hire a waste collector. As compared to individually hiring the sweeper or a family member disposing of waste at a transfer point, this system is not very common. The study cities have shown three types of mechanisms in this type of systems:

- a) A group of households collectively recruiting a person for primary collection, fixing a minimum fee and paying individually to the collector: Generally, there is an activist or a group of activist (not registered as an NGO) supporting such initiatives.

Such initiatives show the beginning of a positive change in community attitudes where households decide to take initiatives rather than waiting for the government to come and do the work, thus opening up markets for the micro-enterprises of primary collection. Secondly, the households agree to pay a regular amount to sweeper. This change means that the households (the users) have accepted the service and its payments. Sweepers are seen therefore as private service providers and micro-entrepreneurs.

- Sweepers enjoy such a system since it gives them security of work through peer pressure and an emerging market for waste collection service in the area.
- Sweepers also like the regular and minimum payments assured by the activists.
- In general, such an arrangement is helpful in their work since the houses are located in a single vicinity and sweepers do not have to walk to collect waste from scattered houses.
- Since the sweepers receive the payments directly from the households, they are still left some room for negotiation of higher rates or charges for additional work.

- b) The group of households collectively hiring and jointly paying the sweeper: In this system communities or householders also take the initiative, but here the sweeper is hired collectively and households payments come through an activist, community group or non-government organization rather from individual households. The organizer performs this work on a voluntary or non-profit basis but sometimes receives costs, grants or subsidies from external agencies. The organizers also act as a regulatory body, and a stronger 'regulatory'

mechanism develops, since the regulator not only facilitates the system but also undertakes some financial controls.

This system has most of the benefits of Type (a) system, particularly in terms of willingness to pay and acceptance of the system. All such benefits are positive for the development of markets for the micro-enterprises.

In such systems the micro-entrepreneurship from the sweepers point of view changes to a 'paid labour' situation. The sweepers also lose the benefits of direct negotiation with the households over regular payments; however they still hold the opportunities of payments against additional work and tips. The micro-entrepreneurship from sweeper's perspective is beginning to reduce as compared to individual hiring of sweepers.

When it comes to invest in the system, the sweepers are usually reluctant to invest since the risks are higher and ownership of the system is divided. The community group sometimes becomes the 'pseudo entrepreneur', particularly when they keep a share of the income as their 'savings'.

- c) In this system an individual or group starts the collection service as a business and takes all the risks and investments. The role of entrepreneur clearly transfers from sweeper to comparatively larger scale contractors, who may be employing a number of sweepers. The sweeper's role clearly becomes that of labour. These systems operate at a larger level, units are bigger, generally comprising many lane and typically between 500 to 1000 collection units in the study cities. The entrepreneur keeps the operations at a level which he could manage individually, without much external dependency and interference. The sweeper is now a monthly salaried person with few prospects of some extra income. It has all the basic benefits of Type (b) systems, particularly in relation to willingness to pay, acceptance of the system etc.

There are some important implications for micro-enterprise development in this system. Firstly, the entrepreneur is now a small scale contractor and not the sweeper. Secondly, as the size of the contract expands the key difference is the sweepers become labourers and reflect some of the features of sweepers system, in the cyclic order. Means if the size of the unit further increases, the sweeper may start acting as in the type (a) system. Thus a major implication for the so called large scale privatization and an important issue whether it will bring any improvement to the system or not.

Thirdly, a contractual relationship with the municipal (official) authority is beginning to develop and the municipal official may start to think how to streamline and integrate such initiatives.

In all the above systems, the role of the government or municipal bodies is negligible. Most of the above systems operate as there is no official system for primary

collection. The systems studied in the research cities have also developed because of poverty on one hand and the need for such a service on the other hand. Since, all these systems have developed spontaneously and the major impetus is the extra income so they operate in those areas where households are willing to pay. However, willingness to pay does not only depend upon the income group but other factors as well, such as need for the service, who is providing service and what is the role of the household in hiring and firing the service provider.

Such systems work well as long as the size of the operation is small and property rights (i.e. roles, responsibilities and incentives) are clearly demarcated. As the units start multiplying or becomes larger there usually arises the need for a more central body and that is the point where the role of the government or municipal institutions become important. Thus a major challenge to the micro-enterprise development is to provide an equitable and regulated service to all income groups and at the same time preserve the benefits of those groups (such as sweepers) who have been traditionally benefited by providing the service.

Analysis

From the five types of systems discussed above, the size of the work in terms of number of units has come out as an important variable. The sweepers' entrepreneurship in terms of investment, perceived security and risk taking is quite well developed, when they are independently dealing with households as in type (a) systems. Entrepreneurship reduces when the unit of work expands and the ownership starts to divide as we see from type (b) to (d) systems.

Municipal and private sweepers, both male and female, were interviewed in all the study cities. They were asked about their interest in possible micro-enterprises and working with NGOs or working with large scale private contractors. It was found that most of the sweepers consider their municipal jobs as a very secure way to earn a livelihood. In most of the cases they worked for several years as daily wage earners and temporary sweepers in the hope of getting a permanent appointment. The security and status of a regular job is the main reason for their interest to continue the official job. In addition to job security, sweepers also have opportunities to negotiate jobs for their sons, daughters, wives or husbands, which provide them longer term securities. The current markets for primary collection is not developed enough to provide sustainable security to vulnerable sweepers group. However, if sweepers are not considered as an integral part of the future privatization strategy, there may be adverse social impacts from the change.

Current institutional attitudes were assessed through discussions with senior officers and institutional trend with the changes in primary collection. Municipal institutions responsible for solid waste management in Colombo, Dhaka and Faisalabad have no experience in privatization or

community participation in solid waste management. The Local Government Engineering Department (LGED), Bangladesh has involved NGOs in solid waste management for the cities of Maymensingh and Sylhet. and our discussion with the representatives of LGED reveals that this trend is going to increase in future. In Colombo, because of a number of past interventions in the housing sector, the Community Development Councils (CDCs) are in place in most of the low income areas. Sweepers in Colombo, also mention about CDCs and the possibility of a contract with them when they talk about enterprises for the primary collection. In general, present institutional attitudes for micro-enterprise development are beginning to form and their future direction will depend upon how privatization initiatives in all these cities are put into place and what may be the role of the existing sweepers' system in the future privatization initiatives.

Based on the discussion of Type (a) system, it is quite clear that service provision for primary collection, depends upon the payments made by households to sweepers. In small scale contractors (Type c), the same theory applies, as long as the payments are equivalent to the charges by sweepers (on-going rates) for such a service. The small scale contractor makes a profit when he expands the size of the work, explore and develop new markets, through technological interventions and utilizing social pressure and personal influence with the municipal corporation. The small scale contractors researched in Karachi and Dhaka, were living in the same area where they provide collection service and both of them have good connections with the municipal councillors in the area. Sweepers and small scale contractors, because of their entrepreneurship, demonstrate clearly their capability to acquire service charges from households. In the primary collection programmes initiated by NGOs, acquiring payments may be a problem because:

- NGOs in-capability to act or activate entrepreneurship;
- Household perception of NGOs.

Those NGOs which successfully take the role of a facilitator and develop entrepreneurship have few problems in acquiring charges from households. Our discussion with households revealed that at present households are not willing to pay the municipal appointed waste contractor unless they have an assurance about better service.

Conclusions

Based on what was discussed in the preceding sections, the following conclusions can be drawn:

- The sweepers' system of waste collection and charging money is a common private practice in all the study cities. This system could be classified as a private solution initiated by the community against in-adequate solid waste management and a solution to the absence of primary collection systems. Overall, the sweeper system represent a significant part of the informal economy in waste management. Future plans for the privatization of solid waste management must understand and integrate the on-going private practices in future strategies.

- It is unlikely that with the existing operation of the municipal corporations, the sweepers system could be transformed into the independent micro-enterprises. The sweepers foresee a number of risks associated with independent enterprises of primary collection. Further, municipal sweeper get flexibility of work, security and additional income from their existing municipal job supplemented with their private work. Thus two basic pre-requisites for sweepers' micro-enterprises are the opportunities for additional income and security of work.
- The prospects for micro-enterprise are greater with a better institutional context and recognised community representation. As we have observed in Colombo, sweepers are more interested in the formation of micro-enterprise and propose that they could be initiated through officially recognised Community Development Councils (CDCs).
- The team of sweepers and municipal supervisors operate in the form of an autonomous unit within the large scale municipal operation. The way through which this arrangement works within the overall system reflects the potential of transforming itself into a micro-enterprise.

References

- ALI, S.M., 1997, "Intergation of the Official and Private Informal Practices in Solid Waste Management". Ph D thesis, Department of Civil and Building Engineering, Loughborough University, UK, 1997.
- BEALL, J., 1997, 'Households, Livelihoods and the Urban Environment: Social Development Perspectives on Solid Waste Management in Faisalabad, Pakistan'. Ph D thesis, The London School of Economics and Political Science, The University of London, UK.
- BURNS, P., 1996, 'Introduction: the Significance of Small Firms'. in Small Business and Entrepreneurship by Burns P. and Dewhurst J. (eds) in Small Business and Entrepreneurship, Macmillan Business Series, Macmillan.
- IETC, 1996, 'International Source Book on Environmentally Sound Technologies for Municipal Solid Waste Management'. UNEP, International Environmental Technology Centre, Osaka Japan.
- STOREY, D., and SYKES, N., 1996, 'Uncertainty, Innovation and Management' in Small Business and Entrepreneurship by Burns P. and Dewhurst J. (eds) in Small Business and Entrepreneurship, Macmillan Business Series, Macmillan.
- STREEFLAND, P., 1979, 'The Sweepers of Slaughterhouse'. Van Gorcum, Assen, The Netherlands.
- UMP, 1996, 'Workshop Report - Micro and Small Enterprises Involvement in Municipal Solid Waste Management in Developing Countries'. Urban Management Programme and Swiss Development Corporation (SDC) Collaborative Programme on Municipal Solid Waste Management in Low-Income Countries.

MANSOOR ALI, WEDC.

ANDREW COTTON, WEDC.

JO BEALL, London School of Economics.