

**Public – NGO partnership for municipal services***A.B.M., Ashraful Alam and Mohibbur Rahman, Bangladesh*

THE MUNICIPALITIES IN Bangladesh are age old local self-government institutes rendering municipal services in water supply, sanitation and health, waste disposal etc. Ever increasing migration of rural population to urban areas coupled with inadequate resources in men and material have rendered them inefficient. Conventional arrangements for rendering municipal services specially waste management are not enough and there is urgent need for alternative strategies to cope with the situation. In the country, there is approximately 25 million urban population generating about 7500 tons of garbage daily and is supposed to be disposed off at the municipal disposal sites. But, it is estimated that 80 per cent of it is left on the streets or finds its way into drains and water courses or is dumped into low lying areas and vacant land. Most people in municipalities are condemned to live in a polluted and stinky environmental mess. Traditionally, solid waste collection and disposal have been a municipal responsibility.

To improve the existing situation of the solid waste management together with other municipal services, Local Government Engineering Department (LGED) who provides technical assistance, especially for infrastructure development activities to local government Institutes (namely Union (sub-county), Thana (county), Zilla (district) councils, City Corporations and Municipalities) has taken up a number of urban development projects.

LGED is currently responsible for implementation of a score of development projects throughout the country covering, besides the important areas of physical interventions, service oriented interventions in solid waste disposal, water supply, low cost sanitation, drains and drainage, socio-economic development of slum dwellers and other development activities. Out of 136 municipalities and 4 city corporations in Bangladesh, the total coverage under four urban development projects is 38 municipalities and 2 city corporations. The target population is more than 10 million and the duration of the projects are up to 2003.

The Secondary Towns Infrastructure Development Project, one of such projects being implemented in 10 municipalities targets to develop an integrated urban infrastructure service programme for the provision and up gradation of essential infrastructure and service in the municipalities. The task is also to concurrently assist in strengthening their capabilities to plan, implement, operate and maintain these for a sustainable environment friendly municipal service system. Under the project, pub-

lic-NGO partnership, a sustained municipal system has been introduced for solid waste collection and disposal and a case study has been prepared on this system.

**The case study****Solid waste management in municipalities**

Solid waste collection of the municipalities is predominantly a labour-oriented operation and it depends on weight and volume of waste generated, arrangement of collection service, frequency of collection and facilities for local collection. Domestic wastes account for 50 to 70 percent of the waste to be collected depending on the level of development. Other sources are markets, shops, offices, hotels, hospitals, institutions, small factories, street sweepings and drain cleanings.

Present arrangement of collection service has two phases. In the 1st phase the residents arrange deposition of wastes in the dust bins or designated spaces and in 2nd phase transportation of the same from these collection points to dumping sites by municipality is arranged. Facilities for local collection include hand/pushcarts, rickshaw vans, garbage bins (fixed, movable) etc. Transportation to dumping sites is usually done by trucks. But, due to shortcomings of proper management, technique and equipments, the solid waste are not properly collected and disposed off. No municipalities or city corporations has got modern facilities for the proper management of urban waste. As a result, the whole picture of these sectors are very critical and painful. Everywhere unhealthy, filthy, bad smelling garbage are spreading non-curable disease. A good methodological management is required to improve the situation.

**The project**

Municipal service is essentially a people oriented function. Community participation is a necessity for a sustained system. Non Government Organizations (NGO) have been doing a good job mustering the support and co-operation of the communities in their development efforts. They can rectify inefficiencies of systems and NGOs can help the public sector, reorganize substantial cost savings in the provision of public services to community while relieving financial and administrative burdens of the government. The NGO and the private sector can also stimulate employment both through mutual involvement in urban development.

The LGED, therefore, decided to undertake an experiment with the help of a public-private partnership with an

NGO in Mymensingh and Sylhet municipalities to develop and enforce a sustainable municipal service by restoring, developing, operating and maintaining the drainage network and the solid waste disposal (SWD) from the drains, roads and garbage bins (commonly called dustbins). The main objective is to foster an alliance among the three actors, the Municipality, the NGO and the Community to provide sustained services.

It was agreed that necessary manpower from existing staff i.e. sweepers of the municipalities and materials would be used by an NGO on payment. In this way it was envisaged that the existing resources could be used more effectively.

### The Selected NGO

The selected NGO is 'Shubashati' which in English means good habitat. The organization has been working in the various field of urban and rural development for more than a decade. It is one of the few agencies intimately working in infrastructure and service oriented projects like health and sanitation, solid waste disposal, slum improvement etc. Shubashati has been selected among other pre-qualified NGOs on the basis of NGOs' experience, its organizational strength, financial resources and approach and methodology.

Some of the objectives of the organization with regard to these project are to improve solid waste management system, to minimize environmental pollution through efficient waste disposal techniques and to reduce cost of solid waste disposal work, generate employment for urban poor people and create awareness among urban people about proper use of garbage bins.

In each project municipality, there is a local office of Shubashati headed by a Programme Officer. The Programme Officer supervises the total work with the help of 2 supervisors who control the labours. Existing labourers of the municipalities are employed.

'Shubashati' staff shares the problems of labour and is also working for motivation of citizen for proper use of the facilities.

### Project areas

For the pilot project, one Ward from each municipality was selected: Ward No. 3 in Mymensingh and Ward No. 5 in Sylhet municipalities. A 'Ward' is a unit of municipality numbering from 3-15 depending on the size of municipalities. There are seven Wards in Mymensingh and thirteen in Sylhet. However, the selected Wards were the busiest city areas.

### Methodology

The data for the study were gathered by monitoring of the activities of 'Shubashati' through a set of questionnaire and formats on implementation. Discussions with the beneficiaries of the project during field visits also constitute the methodology. The concept and objective of this experiment, methods and implementation of the work and various issues were discussed in several sessions with the management of the municipality and LGED officials. The writer made intensive field visits during the initial period of project implementation and shared the concept with the communities and the elected commissioners.

### Manpower requirements and cost of the project

The Mymensingh and Sylhet municipalities have their own staff and budget for road sweepings, drainage clearance and solid waste disposal. Using the municipalities manpower and at a lower costing, Shubashati has done the same work efficiently. A comparison of manpower used by the municipalities and the Shubashati and cost involvement may be seen in Table 1.

It is seen from the table that, a 20 per cent to 25 per cent reduction was achieved from the budgeted amount. More importantly, there was marked improvement in the services and the residents found the drains flowing, wastes taken away and an environmentally clean healthy town. The beneficiaries revealed positive reactions about the work, happy about the work so far done. They praised for the cleanliness as there was no foul odour around the bins and area.

Table 1. Comparison of manpower and cost municipalities and Shubashati

Name of municipalities	Manpower used by		Cost per month	
	Municipality	Shubashati	Municipality	Shubashati
1. Mymensingh (Ward no.3)	90 (80 labours and 10 supervisors)	80 (75 labours and 5 supervisors)	Tk.100,000	Tk. 113,333 for 1 <sup>st</sup> 3 months and Tk.67,000 for rest months
2. Sylhet (Ward no. 5)	45 (41 labours and 4 supervisors)	45 (41 labours and 4 supervisors)	Tk. 65,000	Tk. 66,200 for 1 <sup>st</sup> 3 months and Tk.52,000 for rest months

Note: 1 US\$ = Tk. 42.00 in 1995-96

The labourers were paid higher wages at Tk. 1000 per month for 4 hours of work per day in place of Tk. 600 paid by the municipalities for the same job. This improved their output and service satisfaction.

#### **Physical achievement**

- Total length of road cleaned and swepted regularly was 20 km. in Mymensingh and 22 km. in Sylhet.
- Total length of drains restored was 30 km in Mymensingh and 27 km in Sylhet.
- Total length of drain maintained (including restored length) was 42 km. for Mymensingh and 35 km for Sylhet.
- Total number of garbage bin and garbage spots cleaned and maintained regularly was 70 and 12 in Mymensingh and 20 and 5 respectively in Sylhet.

#### **Parameters of design**

From the activities, the following parameters of design in planning, implementation and management of the work can be deduced from technical and socio-economic realities of Bangladesh.

#### **Total cleaning and restoration of the drainage network is a necessary pre-condition**

Cleaning of all the drains upto the desired depth and restoration of the drainage system should be completed first. Much less manpower and fund are required after the first cleaning. The frequency of the cleaning work is area specific, i.e. some drains may need cleaning weekly, some fortnightly and in most cases there may be need for catching and removing the floating garbage only.

#### **Connection of the drainage network with out-falls is essential**

The drainage system must be connected to the out-fall. For example, the drainage network of Ward No. 3 in of the Mymensingh areas cross through another Ward to be connected to the out fall. This additional but essential work was brought under the work as without draining of water to the out-fall, the exercise would be futile.

#### **Continuous and regular cleaning of all dustbins and areas of stacked wastes is must**

The dustbins must be cleaned regularly. The areas with piled up wastes should be totally cleaned and the residents be socially mobilized to deposit the wastes in the dustbins or in the designated areas. After first cleaning it is a routine daily work. The work be rescheduled depending on the load and distance once the initial cleaning is complete.

#### **Dumping site be properly located and should not pose environmental pollution problems**

Dumping of garbage to proper sites is equally important. Therefore it is very important that the site is selected very carefully and does not pollute land, water and air and

create environmental problem. It could be in less fertile land and not very close to residential area.

Awareness programmes through social mobilization are necessary pre-condition for community participation and sustenance

Municipal facilities are for the use and benefit of the people and their cooperation and support is a key to a sustainable municipal service system.

Majority of the wastes are polyethylene bags and used coconut shells thrown by residents, shopkeepers, factory owners and pedestrians. There is need for mass awareness and health education by social mobilization to tackle these problems. Also some legal measures may be thought of for stopping littering on roads and drains and to stop defecating in the drains. The support of the elected representatives is crucial and their active participation is a key factor.

#### **A good management system is essential**

A good management system is essential to optimize the solid waste management operations of road sweeping, collection of waste from bins, spots and drains sides, consideration should be given to the:

- Allocation of work
- Reporting for work
- Transfer of sweeping
- Size of crew
- Frequency of sweeping
- Accumulation Stations
- Wastes from drain cleaning
- Programming and Scheduling

#### **Conclusion**

The case study on road cleaning, solid waste disposal and restoration of drains in Mymensingh, and Sylhet, two unplanned municipalities demonstrates the wisdom and efficacy of public-NGO partnership in solid waste disposal. This can provide a lesson to pave the way for institutional reforms for demand-based service provision and management at the lowest appropriate levels. Much to the local Government institutions, this is an unique example of transforming social needs to economic demands through public-private initiatives responding to the demands.

The case study conforms some of the issues in the situation analysis on Water and Sanitation Sector in Bangladesh. It reinforces the contention that institutional, policy and operational changes are necessary to bring about efficiency in service provision for the people. There is a need to re-orient and transform existing institutions to create an enabling environment to foster community/private alliances; create Government-NGO partnerships; and promote the private sector;

The municipalities agreeing to rent out the garbage trucks and sweepers is an indirect support and constitutes a collection system involving public and NGO partnership that benefited both the municipality and the community.

The solid waste management schemes in Mymensingh, and Sylhet would not have succeeded if it were not for the cooperation of community. The NGO mobilized the community. The community had agreed to try out the system; to drop the garbage in the designated bins or spots. That in itself ensured the success of such a scheme.

The residents of the localities pay conservancy taxes to the municipalities despite the fact that service has evaded them. A garbage collection system based on incentives, freedom and accountability has a better chance of success than systems imposed on the beneficiaries by statutory organizations as demonstrated in the experiment.

The sweepers have been providing excellent garbage collection service because they had job satisfaction with higher wages.

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