People as partners: Facilitating people’s participation in public–private partnerships for solid waste management

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Abstract

Cities in developing countries are facing a double dilemma. On one hand, the urban population is growing rapidly, causing a huge increase in demand for waste management services. On the other hand, the traditional public sector is failing to respond to the increased demand for service. The public sector is constrained by resource and institutional limitations. It is often proposed that the solution lies in private sector participation. It is expected that the private sector, with its dynamism and flexibility, may fill in the service delivery gaps by forming partnership with the public sector. However, a third tier—the people—is often overlooked in the service delivery framework. Citizens can contribute significantly to service delivery. They can support the private sector with payment of service charges. But more importantly, they can play an active role in improving accountability and service quality of both public and private sector. This radical shift in people’s role, from passive service receivers to active service partners, however, may not occur endogenously. External help from facilitating agencies may enable the public and private sector to form partnership with people for better service delivery. This article examines the role of facilitating agencies in developing tripartite partnership for solid waste management service in Bangladesh. The key lessons learned are: a number of obstacles prevented spontaneous partnership among the public sector, private sector and people; facilitating agencies were able to overcome the obstacles to form partnership of the three; and, the tripartite arrangement resulted in higher accountability and better service delivery. 

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Introduction

Urbanization is now a global phenomenon. The world’s urban population reached 2.9 billion in 2000 and is expected to rise to five billion by 2030. A great rural-to-urban demographic shift taking place throughout the
world is fuelling this urban growth. As a result, the proportion between urban and rural population is steadily tilting towards urban. Only 29% of the world’s population lived in urban areas in 1950; this proportion increased to 47% by 2000. By 2030, urban dwellers are projected to account for 61% of the world’s population. At the current urban growth rate, the number of urban and rural dwellers in the world will become equal by 2007 (UN, 2004). Very soon, for the first time in history, more people will be living in urban areas than rural areas.

One of the consequences of the global urbanization is increasing volume of solid waste. The rising urban population is generating solid waste at an ever-faster rate. It was estimated that about 1.3 billion metric tons of municipal solid waste was generated globally in 1990 (Beede & Bloom, 1995). At present the yearly production of solid waste in the world may be about 1.6 billion metric tons. A considerable amount of money goes into managing such huge volume of solid waste. Asian countries alone spent about US$25 billion on solid waste management per year in the early 1990s; the figure is projected to rise to around US$50 billion by 2025 (Hoornweg & Thomas, 1999). These figures testify that solid waste management (SWM) has become a large, complex and costly service.

Cities in developed countries have financial resources and skills to adequately handle the cost and complexity of SWM. The problem is more acute in developing countries. This is because the rate of urbanization is faster in the developing countries. Almost all the population growth of the world between 2000 and 2030 is expected to be absorbed by the urban areas of the less developed regions (UN, 2004). There is a corresponding rapid increase in the generation of solid waste. At the same time, the municipalities in developing countries typically lack the financial resources and skills needed to cope with this crisis. The resulting decline in solid waste management service is becoming apparent in many developing countries. This raises the important issue of how to deliver quality service in the face of the financial and skill constraints of the public sector. Complacently overlooking the shortcomings of the public sector in delivering quality service poses a risk to public health. It is, therefore, imperative to search for alternatives to traditional service delivery mechanism to keep the cities in developing countries healthy and liveable.

It is often proposed that the solution lies in the private sector participation in delivering SWM services. Particularly, public–private partnership (PPP) is often viewed as a potential alternative to the traditional service delivery by the public sector alone. Under PPP arrangement, both public and private sector agencies share the responsibility in providing service. The arrangement can take many forms, but the common distinguishing feature is a shared governance structure and decision-making process. In such partnership, the private sector’s dynamism is combined with the public sector’s custodianship of public interest. In theory it seems like a natural and effortless merger of interests. In practice, attaining PPP, especially within the institutional constraints present in developing countries, is not easy.

Moreover, a third tier—the people—is often overlooked in the service delivery framework. Citizens can contribute significantly to service delivery. They can support private sector participation with payment of service charges. But more importantly, they can play an active role in improving accountability and service quality of both public and private sector. This radical shift in people’s role, from passive service receivers to active service partners, however, may not occur endogenously.

External help from facilitating agencies may enable the public, and private sector to form partnership with people for better service delivery. This article examines the role of facilitating agencies in developing tripartite “public-private-people” partnership for SWM service in Bangladesh. The key lessons learned are: a number of obstacles prevented spontaneous partnership among the public sector, private sector and people; facilitating agencies were able to overcome the obstacles to form partnership of the three; and, the tripartite arrangement resulted in higher accountability and better service delivery.

Context of the study

This study was conducted in Bangladesh, a typical developing country in South Asia. The landmass of the country is about 147,570 km². Bangladesh’s present population of over 130 million (BBS, 2001) makes its population density one of highest in the world. Bangladesh is also one of the poorest countries with per capita GDP of about US$444 (Rahman, 2004). However, the country has registered impressive advancement in a number indicators: GDP increased by 60% during 1990s, income poverty declined by about 1% year through
1990s, and boasts one of the highest primary school enrolment rates in the developing world (World Bank, 2004). At present Bangladesh remains a primarily agrarian country with only about a quarter (23.4%) of its population living in urban areas. But a fast demographic change is taking place. Urban population in Bangladesh has been rising rapidly over the last few decades. The estimate of growth for 1990–2020 is projected to be 5.4%. This means that about 50% of the population will be living in urban areas by 2020 (World Bank, 2003b). As the country’s socio-economic condition rises, so will the trend in urbanization, and a corresponding increase in the amount of solid waste generation.

At present municipalities in Bangladesh are able to collect only about half the generated solid waste (DCC, 1999). Weak institutional incentives and capacity have been at the base of the dysfunctional urban service delivery. The challenge will be even greater by 2020 when the demand for removal of solid waste may rise to 50,000 tons/day from the present 10,000 tons/day (World Bank, 2003b). The projected demand for SWM is indicated in Fig. 1.

Private sector participation in SWM in Bangladesh started as a response to failing service delivery by the public sector. Frustrated by the accumulating garbage on the streets, some activists started community based primary collection to clean up their neighbourhoods. More CBOs, NGOs and entrepreneurs gradually entered into this service. They started providing house-to-house garbage collection and charging citizens for this service. Therefore, two streams of service providers—public and private—became active in the sector. In some cities the two streams remained separate without much coordination. In other cities the two sectors formed partnership with support from third-party facilitating agencies. Moreover, in some cities the facilitating agencies attempted to link citizens to the public and private sector for effective service delivery. The involvement and the success of the facilitating agencies varied between the cities, presenting an opportunity for an investigation into the effort and effect of public-private-people partnership in SWM.

Four cities of Bangladesh were selected for this study: Khulna, Patuakhali, Sylhet and Dhaka. The locations of the cities are indicated in Fig. 2. In terms of size and population, the cities are quite different. But each faced the problem of managing solid waste. More interestingly, the pathway and outcome of the efforts to address this common problem were different in each city. A brief background is given below to familiarize the reader with the varying conditions present in each city.

**Khulna**

Khulna municipality was upgraded to Khulna City Corporation (KCC) in 1991. Khulna is the third largest city in Bangladesh. The present population of the city is about 1.5 million. It covers an area of 46 km² (BBS, 2001). A mayor, directly elected by the citizens, heads the city. The city is divided into 31 wards. An elected ward commissioner heads each ward. In addition there are 10 women ward commissioners.

Like all other city governments, KCC is responsible for providing municipal services to the citizens. Solid waste management is a primary duty of KCC. There is a conservancy section at KCC to carry out the responsibility of solid waste management. A Conservancy Officer heads this section. The responsibility of the
section includes secondary collection of solid waste, final disposal of solid waste, street sweeping, drain cleaning and mosquito control. The conservancy section employs 513 persons on regular and muster roll (daily wage) basis. Of this number, 358 (70%) are engaged in solid waste management. Of them, 290 persons are engaged in secondary collection and 54 persons work at the final disposal of waste (Huq, 2002).

KCC’s mandate is to collect solid waste from secondary bins and dispose those safely. For this purpose KCC has constructed about 1200 masonry neighbourhood bins, 105 larger masonry bins and 50 steel demountable bins. Citizens are supposed to deposit their garbage into these bins. KCC workers collect garbage from these bins, load those onto trucks, and haul the garbage to a dumpsite. The dumpsite is located about eight km away from the city and measures about 20 acres. Only crude dumping is practiced. Sinha and Enayetullah (2000) estimated 200 ton/day waste generation and only 80 ton/day collection by KCC. On the other hand, Coad (1999) estimated 300 ton/day generation and 74 ton/day collection by KCC.

As a result of the poor collection ratio, much of the uncollected waste used to remain on the streets or found its way into drains. Heaps of garbage on the roads and drains clogged with garbage created a serious public health hazard. KCC was simply unable to cope with this situation due to budget and staff shortage.

The water and sanitation program (WSP) of the World Bank introduced the public-private partnership for managing solid waste in Khulna. The idea originated from a pioneering program in Dhaka initiated by Mr. Mahbub Ahsan Khurram. Further details of the programme are included later in the paper. A number of similar initiatives started in Dhaka city after success of this programme. The effect was remarkable. All piles of garbage disappeared from the roads. His operation, however, remained disjointed from the DCC operations.

Learning from this experience, WSP initiated the Khulna solid waste management project. The objective was to go beyond the Dhaka experience by building partnership between the public and private agencies. WSP hired a local NGO called Prodipan to implement the project. Both WSP and Prodipan acted as facilitating agencies. The project was launched in March 1997. From the very beginning KCC was made a partner in the project. An MoU was signed with KCC to formalize this relationship. Under this MoU, Prodipan started a demonstration of door-to-door garbage collection service by the private sector (NGOs). Citizens were required to pay a small service charge. Six wards were selected for this pilot scheme. At the onset, a massive public awareness campaign was launched. KCC officials, including the Mayor, participated in the public awareness building activities. Ward committees were formed in each of the six wards. Headed by the ward commissioner,
these committees became the unifying platforms to bring together citizens, public representatives, KCC and NGOs.

When the door-to-door garbage collection service was fully developed and running smoothly, WSP looked into other aspects of waste management. First, a demonstration compost plant was built near the dumpsite. Both aerobic and vermi-compost process was developed. This technology was demonstrated to a number of local NGOs. Secondly, a ramp was built at the secondary bin site. It was observed that the walls of the secondary bins were very high. In absence of any docking mechanism, the waste from the tricycle vans was unloaded on the ground first. Then it was manually thrown into the bin. The ramp was constructed to reduce the multiple handling of waste. With the ramp in place, the vans were pushed up the slope and then tipped to directly unload into the bin. Thirdly, medical waste was observed mixed up with municipal waste. To address this problem WSP engaged a consultant to design a hospital waste management program. Prodipan implemented this program with tremendous support from KCC. KCC donated a piece of land and the mayor himself motivated hospitals and clinics to join the program by paying a reasonable service charge. In addition, WSP brought in a number of international experts to provide input throughout the lifetime of the project. WSP also arranged study tour for Prodipan staff to visit Dhaka and India to observe good practices.

The project ended in December 2001. WSP ensured a clear exit strategy. The door-to-door garbage collection operations in the six wards were handed over to the respective ward committees. The services did not collapse with the withdrawal of the project. They continued to operate. The success of the project inspired UNDP to arrange a small fund from another project. This small fund, administered by PRISM Bangladesh (an NGO) was used to motivate other NGOs to initiate the door-to-door garbage collection service. WSP continued to provide technical advice as needed. As a result, the coverage of door-to-door garbage collection increased from six wards to 26 wards by 2003 (Chowdhury, 2004; WSP, 2000).

The facilitating agencies assisted the public sector (KCC), private sector (NGOs/CBOs), citizens and elected representatives to work together. They accomplished this by holding a series of dialogue with the stakeholders and organizing consensus-building exercises. Their relationship with KCC was formalized by a memorandum of understanding that gave them the mandate to promote the above partnership. They worked closely with citizens and politicians in analysing the local environmental problems and helped them in developing solutions. They helped the NGOs/CBOs by training and demonstrating working models of primary collection including all operational matters such as accounting, management, maintenance of vehicles, etc. They also helped in establishing common platforms for citizens, politicians and service providers in the form of ward committees and a citywide forum to hold discussion between the public and private sector.

**Patuakhali**

Patuakhali municipality is one of the oldest in the country. It was established in 1892. The city area covers 26 km². The current population is about 80,000.

The city is divided into nine wards. An elected ward commissioner heads each ward. Besides, there are three women ward commissioners. An elected chairman heads the municipality. The elected city government is composed of 13 members (nine ward commissioners, three women ward commissioners and one chairman).

A conservancy inspector heads the conservancy section. There are three conservancy supervisors to assist the inspector. The conservancy section employs about 60 sweepers. The sweepers use about 30 hand trolleys to collect garbage from dustbins. There are three trucks and two tractors for hauling waste. The city has no dumping ground. At present, solid waste is dumped beside roads and riverbanks.

The Danish aid agency—Danida has a long tradition of providing assistance to Bangladesh in the water and sanitation sector. Danida teamed up with the Department of Public Health Engineering (DPHE) to launch an extensive project in the coastal districts of Bangladesh. The objective of the DPHE-Danida urban water supply and sanitation project is to improve public health through providing better environmental sanitation services. Solid waste management was considered an important element in improving environmental sanitation. Accordingly the project assessed the solid waste management situation in Patuakhali in 1997.

This study found the situation deplorable. There were only 10 dustbins in the whole municipality, drains were clogged with garbage and the city lacked capacity to address the problem. Based on the findings, the
project took up a solid waste management pilot scheme as a research and development activity (Danida, 2000).

At the onset, the project organized a study tour for the chairman and other staff of the municipality to Khulna to learn from the successful project there. The municipality and project staff jointly planned a number of activities based on the experience gained from the tour. They planned two types of waste collection: (1) door-to-door garbage collection by tricycle van; and (2) collection of garbage from neighbourhood level small bins installed by the project. In the latter type, the citizens were required to place their garbage in the bins for the van driver to collect.

The DPHE-Danida project hired an NGO to implement this pilot scheme in three wards. The local NGO mobilized public awareness building, formed ward committees and introduced the collection systems. A total of 636 plastic bins were distributed among the households for in-house primary storage of garbage. Bangladeshi Taka (BDT) 25 equivalent to US$0.42 covering about 20% of the cost of these bins was taken from each household as nominal contribution. About 85 neighbourhood level drum container bins were installed. The service charge for both collection methods was fixed between BDT 5 and 15 (US$0.08–0.25) per month depending on the affordability of the households. Shopkeepers were charged around BDT 15–20 (US$0.25–0.33) per month.

The project management unit (PMU) of the DPHE-Danida project acted as a facilitating agency. The PMU planned the activities jointly with the municipality. They organized coordination meetings between citizens, NGOs and the municipality. They carried out a survey to assess the needs for implementing the pilot scheme. They developed monitoring formats and a financial system for the scheme. They also provided training to municipality staff. In effect, the PMU, as the facilitating agency, nurtured the public–private partnership.

As in the case of Khulna, the Danida project also entered into a formal agreement with the municipality to promote solid waste management through PPP. They recruited NGOs to implement door-to-door primary collection. They attempted to build relationship between the municipality, the private sector, elected representatives and the citizens through joint exercises such as rallies and public meetings. However, in comparison with the Khulna experience, they were more aloof from the stakeholders. As a result they enjoyed less trust and friendship with the stakeholders as compared to the facilitating agencies in Khulna.

Sylhet

Sylhet municipality was established in 1878. Considering the rapid population growth and increased commercial activity, the municipality was declared as a city corporation in 2003. Sylhet City Corporation (SCC) covers an area of about 27 km². The present population of the city is about 600,000.

The city is divided into 27 wards. An elected ward commissioner heads each ward. Besides, there are nine women commissioners. An elected mayor heads the city corporation. The elected city government is composed of 37 members (27 ward commissioners, nine women ward commissioners, and one mayor).

A conservancy inspector heads the conservancy section. The conservancy section employs about 190 sweepers. There are about 150 municipal secondary dustbins. The sweepers use about 50 handcarts to collect garbage from the dustbins. It is estimated that solid waste generation in Sylhet city is about 180–200 ton/day. Of this amount, about 40–50 ton is collected by SCC. There are five trucks and two tractors for hauling waste. The city has a dumping ground of about 17 acres. Only crude dumping is practised (SCC, 2004).

A large number of people from Sylhet district migrated to the UK. There is a close linkage between the immigrants living in the UK and their former home city. The UK government also places due importance to this fact. As a result, Sylhet city attracts aid investment particularly from the UK.

Sylhet Partnership (SP) Company has been operating since 2001. It is a not-for-profit organization set up under the Companies Act. It was established as a joint effort of the London Borough of Tower Hamlets (UK), Municipality of Horsens (Denmark) and SCC. The European Union Asia Urbs Programme provided the initial funding. The British High Commission in Dhaka also supported the initiative.

One of the key aims of SP is to provide capacity building support to SCC to deliver better urban environmental management services. Soon after its establishment, SP conducted a community consultation exercise. Solid waste management came out as a crucial area for action. Consequently, an expert from the UK was brought in to assess the situation and make recommendations for improvement. The consultant produced...
a solid waste management framework for Sylhet city. The short-term goal of the framework was to set up a primary collection system through public-private partnership. The medium-term goal was to improve the landfill and transform SCC from a service delivery mode to a contract management mode by engaging the private sector. The long-term goal was to further improve the landfill by incorporating mechanisms for prolonging the life of the landfill such as resource recovery (e.g. gas collection) and recycling.

SP started door-to-door garbage primary collection in wards 1 and 22 according to the above framework. They conducted a survey to assess the needs. They held a number of consultations with the citizens, elected public representatives, and SCC. They started the operation by learning from the experience of other cities in Bangladesh. They maintained a strict control over quality. They opened a complain book and telephone line for speedy redress to problems raised by the citizens.

In addition, they established a 2.5-ton capacity compost plant to convert organic waste into fertilizer. Tea gardens located around Sylhet city provide a ready market for organic fertilizer. The fertilizer is sold through a distributor. The earnings are used to offset part of the operational costs of the organization.

SP maintains a close link with SCC. SCC provides an office space and other facilities to SP. SP continues to support SCC staff with innovative ideas and assists SCC to prepare projects. Their good performance attracted the attention of Municipal Services Project of the World Bank. Consequently, a small grant was issued through WSP to scale up the effort for citywide service delivery.

Some NGOs and CBOs are also providing door-to-door garbage collection service in Sylhet. Yet others such as the Municipal Support Unit (MSU) of Local Government Engineering Department are planning to initiate primary collection service. SP is providing advisory support to MSU and other operators.

SP is playing the role of both a service provider and a facilitating agency. They are providing capacity building and advisory support to SCC and other organizations like a facilitating agency. But at the same time they are also a service organization with a long-term commitment (Saha, 2004).

Dhaka

Dhaka is one of the oldest cities in South Asia. The city’s recorded history dates back to the early centuries of our era. Dhaka was under the Buddhist kingdom of Kamrup in the seventh and eighth century. By the thirteenth century it came under Muslim rule. The Mughal Empire made Dhaka their eastern administrative centre in the seventeenth century. Dhaka began to decline after the British gained military control of Bengal in 1757 and assumed the civil administration of the country in 1766. The population declined and the city shrunk as the British established a new capital in Kolkata. However, in the late nineteenth century the city again began to grow. It became the provincial capital of East Bengal in 1905. After the end of the British rule, Dhaka became the capital of East Pakistan. Rapid development took place with this change. An influx of migration started. In 1971, Dhaka became the capital of the independent country of Bangladesh. The city began to grow even faster ever since (Dhaka Municipality, 1966; Ahmed, 2003; Siddiqui, Ahmed, Awal, & Ahmed, 2000).

Dhaka has already reached the rank of a mega-city with over 10 million population. The city covers an area of 460 km². The city government was revamped, under a Municipal Ordinance, as Dhaka Municipal Corporation in 1978. In 1990, it was renamed Dhaka City Corporation (DCC) through a Local Government Act.

A mayor, directly elected by the citizens, heads DCC. The city is divided into 90 wards. An elected ward commissioner heads each ward. In addition there are 30 women ward commissioners. Therefore, the city government comprises of 121 members including the mayor.

The responsibility of solid waste management is placed on the Conservancy Department of DCC. A Chief Conservancy Officer heads this department. This position was traditionally neglected although solid waste disposal is one of the most important functions of DCC. However, at present a qualified administrator with Defence Department experience has been recruited. This has raised the image of the department. Moreover, recently a solid waste management coordination cell has been created. A high profile officer with an MBA heads this cell. The purpose of this cell is to restructure DCC and bring all staff and equipment involved in solid waste management under one unit. These testify the growing importance attached by DCC to solid waste management (Faruqui, 2004; Patwary, 2004).
At present, the Conservancy Department engages 7,000 workers. The equipment include: 224 trucks and 128 container carriers. DCC has a 72-acre dumpsite in the outskirts of the city. Only crude dumping is practiced.

Private sector participation in solid waste management in Dhaka city started with an initiative by Mr. Mahbub Ahsan Khurram. Frustrated with DCC’s inability to keep his neighbourhood free from garbage heaps, he started a door-to-door garbage collection service in 1986. He bought a tricycle and converted it to carry garbage. A driver was employed. The driver blew a whistle to indicate his presence and time to bring in garbage to his van by household members. Mr. Khurram had to engage in numerous discussions with his neighbours to convince them and seek their participation. He even offered a ‘no satisfaction, no payment’ deal to the residents. The citizens were soon pleased to see regular, hassle-free service, and the remarkable improvement in their environment. They started to make regular payment to sustain the service. There were no longer heaps of garbage on the lanes, as the van picked garbage from each household and deposited into a large DCC secondary bin placed along a nearby main road. The experiment was such a great success that the Bangladesh Television authority aired a small documentary on this initiative.

Inspired by the documentary, similar schemes by NGOs and CBOs began to proliferate. There was a great demand for such service from the citizens. The city’s population became too dense to construct any neighbourhood level dustbins. Nobody would allow construction of a dustbin near his house. Citizens destroyed many dustbins because the overflowing dustbins created a nuisance. The dustbins could only be placed along main roads. This increased the distance to the nearest dustbins. Then the citizens resorted to throwing garbage on the roads or into drains, hoping that DCC sweepers would take them away. DCC was overwhelmed and could not collect the garbage from the roads. Consequently, the roads became very filthy even in the posh residential areas. Therefore, when the private initiatives came along, the citizens were quite willing to pay the nominal service charge for the convenience and improvement in the environment.

At present almost all neighbourhoods in Dhaka has the door-to-door garbage collection service by the private sector. However, there is hardly any link between the NGOs, CBOs or entrepreneurs who are running the services and DCC. As a result, no consultation or coordination takes place between the public and private sector. DCC does not keep any record of such operators. DCC neither supports nor regulates the private sector. Therefore, the growth of the private sector involvement in solid waste management in Dhaka has been unplanned and unregulated.

There have been a few studies on the role of local initiatives and micro-enterprise (Kazi, 1999; Ali, 1999). But there has been no presence of any facilitating agency to promote public–private partnership in Dhaka as was in the case of Khulna, Patuakhali and Sylhet. This makes Dhaka as an interesting site to contrast and compare against Khulna, Patuakhali and Sylhet.

**Methodology**

The objectives of the study were to find out: (1) the obstacles against partnership of the public sector, the private sector and the people for better solid waste management; (2) how the obstacles were overcome; and (3) the effect of the public–private–community partnership on SWM.

The authors used a mixed methodology in conducting the study employing in-depth interviews, semi-structured questionnaires, and observation. Interviews were held with key public and private sector staff, elected public representatives and community leaders. Responses from randomly selected households, and public/private sector workers were collected through questionnaire surveys. Direct observations were used to document the actual conditions and practices to corroborate the responses from interviews and questionnaire surveys. These complementary means of data collection resulted in a rich, triangulated data set.

**Findings and discussion**

The findings of the study are presented here along with discussions comparing the results with international experience.
What are the barriers against public–private–community partnership?

The authors queried about real or perceived barriers against linking public sector, private sector and people for delivering better SWM services. The responses show that a number of barriers prevent such partnership. Four significant barriers were identified by this study:

- The most significant barrier against PPP was a lack of capacity to conceptualise and implement innovative approaches by municipalities. The public sector does not have the skills or incentive to change the traditional mode of service delivery and build partnership with the public sector and citizens. They also do not have fund for experimentation along this line.
- There is no felt need among municipalities to work with NGOs and citizens.
- Advocacy with municipalities for PPP is hardly possible by NGOs, CBOs or citizens due to lack of funds, skills and access.
- The public sector’s management style leaves little room for innovation. The staffs are not given opportunity to acquire new skills to engage with the private sector and citizens. They do not normally receive any exposure to innovations taking place within or outside the country. Besides they do not have any fund to promote linkage with private sector or citizens. The result is that the public sector is gripped by an inertia that prevents any departure from the traditional path of isolation from the people or NGOs/CBOs. Therefore, the public sector fails to view the private sector and the people as partners for improving service delivery.

The finding about the public sector’s indifferent attitude towards the private sector is in agreement with other studies. For example, Ikiara, Karanja, and Davies (2004) mentioned that municipal officials in Kenya do not see NGOs/CBOs as potential partners. Others authors have also identified the lack of technical and institutional capacity in the public sector to form partnership with NGOs/CBOs as barriers (World Bank, 2000). The responses from this study suggest an explanation for this negative attitude. The public sector officials stated here that they have difficulty to conceptualise alternative service delivery mechanisms, as they do not have the luxury of experimenting with such alternatives or any opportunity to learn from innovations elsewhere. As a result, they cannot easily reach out to extend linkage with the people or the private sector.

Ikiara et al. (2004) further stated that the prevailing attitude among government officials toward non-state initiatives is mostly negative. However, this study found that the attitude among Khulna city officials was different. They seem to greatly appreciate the contribution by NGOs/CBOs. They actively participated in promoting the activities of these non-state initiatives. Therefore, this study indicates that it is possible to reverse the negative attitudes of the public sector with effective intervention by a facilitating agency.

Plummer and Slater (2002) have mentioned that the municipality staffs typically fail to appreciate the benefits and opportunities that partnerships with the private sector and the citizens offer. Such inertia in not moving from the familiar path has been identified as a barrier to PPP by Bennett, Seldon, and Grohmann (2000) as well, who also mention that this tendency is often broken under crisis situation. However, in this study, it was found that the facilitating agencies were able to bring change in the attitude of the public sector staff without the aid of any apparent crisis.

Is it possible to link people to SWM service delivery?

This research documented that it is possible to achieve public–private–people partnership. A strong partnership was observed in Khulna, where the municipality, NGOs and citizens are working together for improved SWM services. To some degree such partnership was also observed in Sylhet and Patuakhali where the process was facilitated by two different agencies. The main findings are:

- Major contributions of the facilitating agencies were injecting new ideas of service delivery under PPP and supporting demonstration of PPP model.
- A significant achievement was building relationship among municipality, NGOs/CBOs, elected representatives and citizens.
- facilitating agencies themselves must have sufficient expertise to successfully support PPP.
Many authors have underscored the need for public–private–community partnerships rather than simple partnership between the public and private sector (Edes, 2003; Mumtaz & Wegelin, 2001; Bennett et al., 2000). However, Post and Baud (2004), through their extensive literature review, have shown that linking communities with the public sector is very difficult. They further mention that community involvement often depends on non-structural and uncertain elements such as NGO support. In this context, the semi-structural ward committees formed in Khulna with assistance from the facilitating agencies were remarkable. This finding indicates that specialized facilitating agencies may be successful in forming the public–private–community partnership. But the success may depend on the competence and commitment of the facilitating agency. It was found that facilitating agencies were much less successful in Patuakhali and Sylhet. The PPPs in these cities had much weaker linkage with the community. This brings out the point that competence and commitment should be essential qualities of the facilitating agencies.

Recent literature on facilitating multi-agency service delivery recommend that a facilitating agency should have strong links to the top management, independence in decision-making, and excellent communication skills to bridge the gap between prospective partners (Government of New Zealand, 2004). This corroborates very well the qualities exhibited by the facilitating agencies in Khulna city. They had the full access to and confidence of the city’s Mayor, no interference in their decisions, and a series of successful consensus building exercises. These qualities of the facilitating agencies, in addition to their rapport with the stakeholders and a demonstration of commitment, possibly led to the success of PPPs in Khulna.

Is the role of a facilitating agency sufficient for linking or are other co-factors necessary?

Regarding the necessary conditions, other than facilitating agencies, for the successful linking of the public sector, the private sector and the people, the study found that:

- Support from citizens and elected representatives is required in addition to that from municipal officials and the private sector.
- Formal tripartite arrangement, rather than informal or ad hoc arrangement, is a more conducive enabling condition.

The findings of this study showed that the success of PPPs is a function of support from citizens, politicians, the public sector and the private sector. This model is more complex than a simple partnership between the public and private sector. It is more difficult to incorporate citizens and elected representatives into PPPs. However, successfully doing so may yield good dividend in terms of sustainability and effectiveness, as was the case in Khulna city. The public–private–people model has been also stated as more effective by other authors (Mumtaz & Wegelin, 2001).

In Khulna, Patuakhali and Sylhet there was formal instrument of partnership between the public and the private sector in the form of memorandum of understanding or agreement. These instruments were initiated by the facilitating agencies and were signed between the facilitating agencies and the public sector. These documents introduced the public–private partnership concept formally to the public sector. In all three cities, the public sector agency (city corporation or municipality) officials, especially the top management, placed a great importance on the formal instrument. They regarded this as a significant step in building relationship with the private sector and citizens. Similarly the facilitating agencies were also ardent in expressing the instruments as important in providing an institutional framework for public–private partnership. However, the operational level respondents (public and private fieldworkers, elected representatives, and community members) mostly termed the instruments as ceremonial documents having little relevance to actual work.

In Dhaka, the study found a general lack of formal agreement between DCC and private agencies. DCC officials claimed that sometimes NGOs/CBOs take verbal permission from ward commissioners or even the mayor to start primary collection of solid waste, but there is no formal document to fortify the relationship between the public and private agencies. The absence of such document was attributed to apathy among DCC officials rather than any real institutional or legal barrier.

The private sector’s experience with formal relationship with DCC was mixed. Recently DCC has contracted out SWM activities in two wards of the city. One NGO having contract with DCC mentioned that
the contract document provided no special privilege. They faced stiff opposition from the DCC fieldworkers and the ward commissioner in spite of having a formal understanding with the top management of DCC. A private firm that won the contract from DCC to provide SWM service also mentioned that they have to work beyond the conditions of the contract. They receive no cooperation from DCC as they have completely withdrawn their involvement from these areas. There is no provision of building public awareness in the contract. There are many issues that the private firm is unable to address such as enforcing DCC rules. Therefore, partnership and collaboration between the public and private agencies have distinct advantages over complete withdrawal of the public sector under privatisation. In contrast, the NGOs/CBOs working without any formal contract felt that they are in a legal vacuum. They are under a constant threat because they do not have any legal authority to collect service charge from citizens for their primary collection service. From the elected representatives’ viewpoint, the ward commissioners expressed dislike about the conditions of the privatization contract. It left the ward commissioners out of the loop for monitoring and ensuring accountability as the private firms report directly to DCC headquarters.

The study found that cities with active involvement of facilitating agencies signed formal documents to promote public–private–people partnership. In Dhaka, without any facilitating agency, there was either no formal instrument for partnership or the contract took a purely commercial nature without any involvement of citizens or elected representatives. The facilitating agencies in Khulna, Patuakhali and Sylhet promoted the agreements, partly to formalize their roles, but more importantly to pave the way for wider public–private partnership and linkage with citizens. Although these instruments had little effect in field level work, they set an institutional environment of partnership between the public and private sector. Dhaka city without any facilitating agency did not have any formal linkage with the private sector or the citizens although many private agencies are operating in the city for a long time. Dhaka city finally started experimenting with privatisation with complete withdrawal of SWM activities by DCC in selected areas.

In relating the above with international experience, it is found that only a few developing countries have successfully moved toward privatization because the public sector is inexperienced in contract management (Cointreau-Levine, 2000). The contracts are often inadequate in technical specifications, performance monitoring, and penalties for poor performance. In many instances the public sector monopolies were replaced by private sector monopolies with no gain in efficiency. This underscored the need for guidance by specialized agencies in realizing effective public–private partnership. Plummer (2002) confirmed this by citing examples of private sector participation in Africa. In Lesotho and Swaziland it was found that technical assistance to the public sector was essential to enable them to move towards public–private partnership, as abruptly contracting out responsibilities to the private sector was not found suitable. Harper (2000) also mentioned that although problems of inadequate public service presents an opportunity for the public and private sector to work together, they often do not on their own form partnership agreements. This is mainly because the public and the private sector are habituated to work separately and the concept of partnership is quite foreign to them. Therefore, a third party is often responsible to bring the two sectors together to form public-private partnership. This study confirms the above findings. It was documented the facilitating agencies working in Khulna, Patuakhali and Sylhet urged the stakeholders to form public-private-people partnership. In Dhaka, without assistance from any facilitating agency, DCC belatedly started a limited privatisation scheme, but with gaps in adequate performance monitoring and accountability.

What are the benefits of linking public sector, private sector and people to SWM service delivery?

The study identified the following major benefits of linking the public sector, private sector and people:

- The areas under public–private partnership based service are considerably cleaner.
- Discussion and collaboration among public and private sector agencies and the people led to better service.
- Significant behaviour change was achieved in such areas.
Improvement in service delivery

The neighbourhoods in Khulna, Patuakhali and Sylhet became markedly cleaner due to public–private–people partnership. This was confirmed both by direct observation and response from citizens and other respondents. Over 90% of the households surveyed confirmed that their neighbourhoods were cleaner due to the private sector’s participation in primary collection. Another measure of service improvement was the response to complaints made by households. In Khulna, nearly 90% of the complaints were addressed satisfactorily. This was followed by Sylhet and Patuakhali where the figures were 66% and 56%, respectively. In contrast, in 75% of the cases of complaint by the households received no satisfactory response in Dhaka.

Similar improvement in cleanliness has been noticed in Hyderabad, India and Nairobi, Kenya (Galab, Reddy, & Post, 2004; Ikiara et al., 2004). Such improvement in cleanliness is attributable to the more accountability of the private sector workers and stronger supervision by these agencies. In addition, the private sector engages appropriate technology more easily. For example, in Bangladeshi cities, they are using tricycle vans for primary collection. These vehicles are a variant of the ubiquitous rickshaws. They are locally made and easily repaired. The appropriate vehicles and strong supervision by the private sector operators mean that the citizens get reliable primary collection service. This good quality service, coupled with rigorous awareness campaigns, effectively stopped littering on the streets.

The service level improvement is linked with accountability. The World Development Report 2004 (World Bank, 2003a) presented this in detail. According to this model there are two routes of accountability. In the traditional arrangement, the public sector provides service, but it is not directly accountable to the citizens. The citizens complain against poor service through their elected representatives or policymakers. This is the “long route of accountability” that is often not very effective. On the other hand, the citizens also buy goods and service from the private sector. In this case the service provider is directly accountable to the citizens through the “short route of accountability,” because poor service immediately results in loss of business. The public–private–people partnership model provides a marriage of the two accountability routes. When the public–private–people partnership works together for a common cause such as SWM, both long and short route of accountability are in force. The public sector’s accountability is strengthened by the stronger voice of the people; the private sector’s accountability is also ensured as they are dependent on service charge from the people. Therefore, the citizens enjoy better response from the dual service providers. This study confirms the accountability model in terms of responsiveness. It was found that the responsiveness (or accountability) was much better in cities under public–private–people partnership in comparison to Dhaka where such partnership is lacking.

In discussing partnerships, Plummer (2002) emphasized that the objective of reform for partnership should always be to improve service delivery. She also mentioned that many municipalities fail to deliver services efficiently. The causes are a lack of competition, bureaucratic process, a lack of capacity and political interference. These elements lead to chronic inefficiency in service delivery by the public sector. Public–private partnership offers a remedy for these elements by bringing in the private sector. However, partnerships must be executed with care and skill. For example, World Development Report 2004 (World Bank, 2003a) warns that attempt in handing over water supply responsibility to the private sector in Argentina led to riots in the streets and finally the decision had to be reversed. Cointreau-Levine (2000) advised promotion of contestability to enhance competition in the developing countries in the area of solid waste management. She recommended that both public and private sector should be active in delivering service, and that the public sector should not completely privatize operations. By having some collection vehicles and labour available, the public sector’s contestability is ensured by its ability to step in to take over operations from the private sector if there are failures. This encourages the private sector to perform optimally. On the other hand, public sector workers also realize that private sector participation could be expanded. So they are motivated to work harder. Contestability creates a competitive tension that leads both the private and public sector to improve efficiency. This study documented that in Khulna, Patuakhali and Sylhet both public and private sector are working along side. Contestability is very much in force in these cities. Dhaka, in contrast, has attempted full privatization of primary and secondary solid waste collection in two zones of the city on experimental basis. It was interesting to note that the elected representative of one such zone specifically mentioned the necessity for “contestability”. Post and Baud (2004) mentioned a serious limitation in private sector participation in solid
waste management: many such initiatives are one-time or small-scale activities. A major factor preventing scaling up the initiatives is the lack of coordination and partnership with the public sector. This study has shown, at least for Khulna, that scaling up is possible to some degree if competent facilitating agencies provide input for a sufficient period.

**Platform for discussion**

The strongest effort to create platforms for discussion was in Khulna. The facilitating agencies exerted great effort to convene platforms at both central and local level. The objective was to improve relationship among the public sector, private sector, elected representatives and citizens. The central level platform could not continue after the cessation of the support from facilitating agencies. However, the ward level discussions continued addressing local problems. In Patuakhali also the facilitating agency helped in the formation of ward based platforms for discussion. These platforms address local level problems. In Sylhet no broad based platform for discussion was found, but the facilitating agency formed a steering committee. The meeting of this committee is the only such platform. In Dhaka, there is no platform for discussion at either central or local level. A few agencies attempted to create such platforms but the effort was futile.

It was found that creation and functioning of the platforms for discussion were dependent on the input of the facilitating agencies. The platforms were strongest where the facilitation was strongest. It appeared from the interviews that such platforms are appealing to public sector, private sector, elected representatives and citizens. But the formation and nurturing requires external help from facilitating agencies.

The above is confirmed by two examples from India. In Cochin, the municipality attempted to build partnership with the community. But the reputation of the municipality was that of a dysfunctional organization which frequently made empty promises. This poor image of municipality was an obstacle in building relationship with the community. Finally the municipality took assistance from an NGO as a facilitating agency. The facilitating agency organized platforms for discussion between the municipality and the community. With time, trust and familiarity, the facilitating agency created a bridge between the community and the municipality that enabled further discussion. In Visakhapatnam, neighbourhood committees were set up as the interface between the citizens and the municipality for a slum improvement project. But a review later found that large sections of the population had no connection with their committee and were unaware of its activities (Plummer, 2000). It shows that simply forming citizens committees does not guarantee effective connection between the public sector and citizens, which is important for public–private–people partnerships. Keita (2003) also supported this view in his article on the experience of “municipal platform” in Bamako, Mali. The municipal platform was established for consultation between public, private and community representatives. But the author recommended that a facilitating agency could be very helpful in this process. These examples from South Asia and Africa show that the public sector may require assistance from a facilitating agency in both setting up the platforms of discussion and nurturing those to maturity.

**Collaboration**

In Khulna, KCC adjusted their work plan to accommodate effective participation of the private sector. They increased their secondary collection capacity (procured more trucks) and synchronized secondary collection time to match with NGO/CBO operations. In Patuakhali, the respondents were generally happy with the work distribution and collaboration between the public and the private sector. The main obstacle there is a serious deficiency of the public sector in not having any landfill site. In Sylhet, there is limited attempt in work plan adjustment by SCC. The main obstacle is lack of secondary collection vehicles. Increasing collaboration with the private sector may not be possible without increasing the SCC collection fleet. In Dhaka, the impediment is not lack of vehicles, but a lack of planning. The primary and secondary collection is not synchronized. This mismatch continues, as there is no platform for effective dialogue between the public and the private sector. In all the above cities the public and private sector expressed a yearning for better collaboration, especially the private sector demanded joint supervision and monitoring of both primary and secondary collection.
In general, there was an appreciation of mutual benefit by both public and private sector respondents. There were only a few complaints by the two sectors against each other, but the complaints were not against partnership, rather they were about lack of capacity for full utilization of partnership benefits.

The facilitating agencies were viewed as the main driving force behind forging partnership between the public and the private sector in Khulna and Patuakhali, and to a lesser degree in Sylhet. There was some criticism against the facilitating agencies. These were related to premature departure of the facilitating agencies before the partnership could fully mature, lack of capacity of the facilitating agencies to create enabling policy to flourish partnership, and lack of capacity to scale up partnership from pilot level to citywide practice.

International experience supports the above findings. Post and Baud (2004) explained that the public sector often do not perceive the private sector as potential partners and vice versa. They cited the example from Kenya where a lack of legal framework makes the public and private reluctant to engage in partnership. In this case the trust necessary for collaboration across the public–private divide was missing. Respondents of this study, particularly in Dhaka, expressed similar feelings. Building mutual respect has been underscored by leading partnership advocates. For example, BPD (2002) mentions “for partners that have not worked in partnership or with each other previously, the building of mutual respect will be a necessary first step.” BPD (2002) recommends that a third party facilitating agency may guide the building of mutual respect and benefit. This has been accomplished to a large degree in Khulna, and to some extent in Patuakhali and Sylhet.

The role of facilitating agencies in promoting public–private–people partnership

This study found the facilitating agencies as central to the formation of public–private–people partnership. The key roles of the facilitating agencies are presented here.

Necessity of a facilitating agency in forming public–private–people partnerships

One of the major findings of this study was that facilitating agencies are indeed necessary under the prevailing conditions in Bangladesh. The key reasons behind this are:

- The most significant contribution of the facilitating agencies was demonstration of a workable partnership model and bridging the gap between the public sector, private sector and citizens. The facilitating agencies bridged the gap through consultative meetings and creation of platforms for discussion.
- The public sector lacks capacity to conceptualise and implement innovative approaches. The public sector does not have fund for experimentation with alternative approaches. They also have limited access to the latest advancement in management and technology. The facilitating agencies made available new ideas to the public sector and built their capacity through training and workshops.
- The private sector agencies, especially the small-scale agencies involved in SWM, lack access to and acceptance by the public sector. As a result, it is not possible for them to conduct advocacy for PPP. The facilitating agencies acted as intermediaries between the public sector, private sector and citizens. This improved access amongst the three stakeholder groups.

The role of a facilitating agency in sustainability of public–private–people partnerships

It was found that sustainability is influenced by the facilitating agency’s capacity, strategy, and length of support. In Khulna, with the strongest and longest facilitation, partnerships for SWM flourished. In Patuakhali and Sylhet the facilitating agencies had less capacity and weaker strategy. Partnerships in these cities were comparatively weaker and stagnant. The pilots survived because of demand for the better service. But new partnerships for expanded coverage of service did not realize as successfully as Khulna. In Dhaka, attempts were taken several times by private agencies to form partnerships, but most of the attempts ended in failure. Inability to gain support from the municipality was often blamed for the failures. Therefore, in Dhaka, without any facilitating agency, the public and the private sector are largely working in isolation with each other.
The role of a facilitating agency in effectiveness of public–private–people partnerships

A strong association was found between facilitation and the relationship between the public sector, private sector and people. In Khulna, with the strongest facilitation, the relationship was the strongest. Here the public and private sector officials enjoyed mutual trust and access. In Dhaka, with no facilitation, there is practically no effective dialogue between the public and the private sector. Secondly, in terms of addressing complaints, Khulna scored the highest satisfaction from the citizens, followed by Patuakhali and Sylhet. Dhaka, with no facilitation and no partnerships, had the worst record of addressing complaints from the citizens.

Conclusions

A few general conclusions on SWM service delivery can be drawn from the above specific observations on SWM service through public–private–people partnership. These are described below.

Firstly, this study found that it is possible to improve SWM service delivery through public–private partnership despite institutional and financial constraints present in developing countries. This observation is significant because total reform of the urban service agencies, particularly the public agencies, may be challenging and time-consuming. The findings of this study showed that service delivery might be improved markedly within a short period by developing partnership between the public and the private sector.

Secondly, the study indicated that achieving such partnerships may not require any radical institutional overhaul. Facilitating agencies with adequate capacity may enable the public and private sector to forge partnership within their existing institutional purview.

Thirdly, the study documented that the financial constraints present in the urban service sector may be partially offset by untapped resources. It was found that citizens are willing to pay service charge in addition to regular municipal taxes provided that the services are of acceptable quality. Financial limitation should not be considered as an impediment for improving service level, as citizens may be quite willing to pay enhanced fees for improved service.

Fourthly, it became evident through the study that it is possible to achieve behaviour and attitude change in people and service agencies. It was possible, with assistance from facilitating agencies, to achieve behaviour change among citizens. People accustomed to throw garbage on the street or into drains stopped this practice and started to bring their garbage to collection vans. Similarly, municipal officials started to view NGOs and CBOs as their allies and not troublemakers. Likewise, the private sector also changed their view of municipal staff as inaccessible and obstinate.

Fifthly, it was shown that accountability and transparency in urban service delivery may be improved even without introducing any major institutional reform. It was documented that accountability and responsiveness improve significantly when people, politicians and service providers face one another in discussion platforms. It is possible to achieve such functioning platforms with assistance by facilitating agencies. The platforms provided an opportunity for free exchange of views between the service receivers, service providers and public representatives. This direct interaction transformed the traditional distant and unresponsive service agencies into more responsive and accountable agencies. It also improved people’s exercise of their voice to demand acceptable service and politician’s responsibility to ensure delivery of such services by the service agencies. In essence, a ‘democratisation’ of service delivery improved accountability.

For further research, the authors recommend investigation into the following areas:

- This study mainly looked into the outcome of facilitation, and not the cost of facilitation. The cost of facilitation in comparison with other competing models such as purely public or purely private service delivery should be investigated.
- This study indicated a lack of monitoring in service quality, particularly by the public agency. Further research is needed to develop monitoring indicators of urban service delivery for developing countries that may be used to benchmark the public sector, private sector, and PPP.
- Reaching research findings to the relevant users for bringing change in practice is an area that deserves more attention. Research is needed to develop an effective way to feed back study findings to policymakers and practitioners of urban service delivery sector in developing countries.
References


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