

Public-Private Partnerships explained: Urban sanitation service delivery in Bangladesh

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The concept of Public-Private Partnership is diverse and far-reaching. In WSUP's experience, collaboration between the public and private sectors is not simply something to aspire to: it is essential to providing pro-poor urban unsewered sanitation services at scale.

This publication is part of a series examining the different ways in which public-private collaboration is being realised in Bangladesh, Kenya, and Zambia - three countries where WSUP is working with Bill & Melinda Gates Foundation (BMGF) to improve the enabling environment for urban and peri-urban Faecal Sludge Management (FSM) services.

Public-Private Partnership takes many forms

While definitions vary, there is arguably no such thing as a typical Public-Private Partnership (PPP): the term is used as a catch-all to describe a number of different arrangements between the public and private sectors to deliver services and infrastructure in a cost-effective manner. PPP contracts take a number of forms which differ according to the division of roles and appropriation of risk between the public and private partners.

The design of individual PPPs can be seen as part of a continuum, with varying levels of cooperation and formalisation depending on the context. In WSUP's experience, it is a mistake to conceive of PPPs solely in the traditional sense of large-scale, contract-based infrastructure projects: these arrangements are inappropriate at the scale of unsewered sanitation service provision in urban areas, where partnerships developed between the public and private sector are often governed by service-based agreements and/or working relationships rather than a single contract. Such fluid and flexible partnerships are integral to the successful development of urban FSM services.

In Bangladesh, Kenya and Zambia, WSUP has been able to propose and adapt different models and approaches to developing PPPs, as well as working to strengthen the environment in which they operate. In Bangladesh, this resulted in innovative contract arrangements between public institutions and entrepreneurs to roll-out a new FSM service in Dhaka and Chittagong under the SWEEP brand.

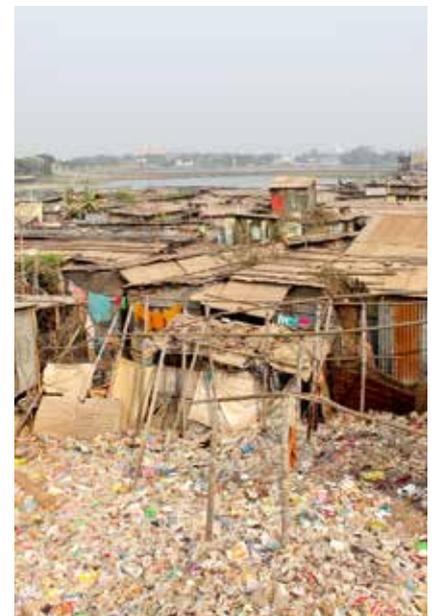


Image: Low-income community in Dhaka, Bangladesh. **Credit:** GMB Akash

What do we mean by the term “enabling environment”?

PPPs (and sanitation businesses in general) need to sit within a regulatory, financial and institutional framework which supports private sector involvement. The strength of the enabling environment - which refers to policies, guidelines, regulations, technical assistance, financing streams and political buy-in - will directly correlate to the success of a PPP, both in terms of financial stability and its ability to reach customers in an equitable manner.

Urban sanitation in Bangladesh

Before detailing WSUP's response in Bangladesh, it is important to understand the national context in which the BMGF programme operates. Most Bangladeshis can access toilets or latrines, and open defecation rates have plummeted thanks to national Community-Led Total Sanitation campaigns during the Millennium Development Goal era. Bangladesh's only sewer network is in Dhaka, covering 20% of the city.

While most of the population use improved on-site sanitation facilities that separate users from faecal material, this sequestration is only temporary - the FSM chain is underdeveloped, and the majority of sludge produced in all cities re-enters the environment with no treatment. Non-sewered urban areas rely on manual emptiers to remove faecal sludge from septic tanks and pits, but many households report discharging sludge from their containment system into the city's surface drains.¹

The City Corporation and Pourashava Acts (2009) assign responsibility for sanitation services to local government, but the mandate for faecal sludge management (FSM) is unclear in cities where there is a Water Supply and Sewerage Authority (WASA) and a City Corporation, as in the case of Dhaka, Chittagong, Khulna and Rajshahi. Recent moves to clarify responsibility for urban FSM have culminated in the development of an Institutional and Regulatory Framework for FSM: while there were no official private actors involved in urban sanitation and FSM until WSUP's intervention began in Dhaka, the draft framework highlights the potential for private sector participation.

How can PPPs strengthen Bangladesh's urban sanitation sector?

In most cities in which WSUP works, utilities and local governments struggle to deliver adequate water and sanitation services. For twenty years, Chittagong City Corporation (CCC) had only one vacuum tanker to serve the entire city, and the few FSM services in Dhaka were provided by NGOs unable to scale up operations for city-wide coverage.

PPPs offer a strong platform for developing approaches to FSM in Bangladesh. Advantages include allowing public institutions to meet mandates in an efficient and cost-effective way that ensures services are pro-poor and sustainable; reducing cost and risk for both parties; offering the potential to reach under-served populations (such as low-income communities or those living in topographically challenging areas); and harnessing private sector innovation, business acumen, speed, and demand creation through business links to communities. Businesses with an interest in expanding into FSM service provision are likely to be drawn to urban areas by virtue of their dense populations, their higher than average income (although this will be less apparent in low-income areas), and potential to scale up.

These advantages notwithstanding, PPPs of all sizes and models require strong regulatory frameworks and supportive public institutions. Nationally, sector reform, framework development, and demand creation support (through subsidies, for

¹Ross I, Scott RE & Xavier JR (2016) Faecal sludge management: diagnostics for service delivery in urban areas - case study in Dhaka, Bangladesh. World Bank.

example) will strengthen the enabling environment for PPPs in Bangladesh. At subnational levels, the public sector must provide capacity building, technical assistance, and guidelines for Small and Medium Enterprises (SMEs) working in urban sanitation.²

Bangladesh's PPP framework

PPP projects have been a feature of Bangladesh infrastructure projects for decades, but were awarded on a project-by-project basis until the national government - keen to achieve Middle Income Country status as defined by the UNDP Human Development Index - created a legal, policy, and institutional framework for PPPs. Sector reform in this area was kick-started by the 2010 Policy and Strategy for PPPs, and a PPP Office was created in 2012 to prepare guidelines and advise the government. The 2015 PPP Law outlines the processes behind the identification and creation of PPPs. Different institutions will authorise PPPs depending on the project's financial size, although smaller projects such as SWEEP operate in a grey area.

Governments will often create PPP projects in response to perceived need, particularly regarding infrastructure. There were no PPPs operating in urban sanitation in Bangladesh until WSUP developed the SWEEP brand in Dhaka in 2015, and water and sanitation PPPs have not been as popular as they have been for other sectors such as transport and energy - this is the case in many countries.³ However, there is clear institutional awareness of the potential offered by increased private participation: for example, the 2014 National Strategy for Water Supply and Sanitation includes 'enhanced private sector participation' as a guiding principle.

An opportunity to develop an innovative PPP arrangement

WSUP's response to the situation in Bangladesh has been to develop SWEEP, a brand designed for vacuum tanker operators, currently utilised by SMEs in Dhaka and Chittagong (from 2015 and 2017 respectively). In both locations, the nature of the contractual arrangement is innovative and unique, responding to opportunities offered by institutional arrangements in each city.

SWEEP has some distinctive features relative to other PPP arrangements: it is licensed by the government, and the facility (the vacuum tanker) is procured rather than built. The vacuum tanker is then transferred to government but operated by the private sector under a lease/license agreement.

The agreements with the public sector in each city (Dhaka Water Supply and Sewerage Authority (DWASA) and CCC) differ. SWEEP in Chittagong is particularly unusual compared to other PPPs in Bangladesh, as a third party (WSUP) provides a new vacuum tanker for the municipality, rather than the private companies leasing or using existing public assets - as is more common, and as is the case in Dhaka, where the SME leases vacuum tankers from DWASA.⁴

²Ndaw MF (March 2016) Private sector provision of water supply and sanitation services in rural areas and small towns: the role of the public sector. WSP, World Bank.

³Farquharson E, Torres de Mastle C, Yescombe ER & Encinas J (2011) How to engage with the private sector in public-private partnerships in emerging markets. PPIAF, World Bank.

⁴Rahman N (2016) PPP Framework. Unpublished report, WSUP Bangladesh.

The SWEEP partnership model

The arrangement in Dhaka

The PPP arrangements under SWEEP incentivise both parties. In return for compliance with regulation, a security deposit, and a monthly lease fee paid to DWASA, Gulshan Clean and Care (GCC), the SME operating SWEEP in Dhaka, did not have to pay for the acquisition of technology at the start-up stage (this would have been prohibitively expensive - an estimated 4 million BDT). Under the lease contract, roles are split between public and private partners: in Dhaka, DWASA undertakes infrequent vehicle maintenance, mass marketing, regulation, and replacing and increasing the vacuum tanker fleet, as well as dealing with disposal and treatment points, while GCC undertake regular operations and maintenance and respond to demand.



Image: SWEEP team and vacuum tanker in Dhaka. Credit: WSUP

The arrangement in Chittagong

Building on the model in Dhaka, SWEEP launched in Chittagong in March 2017 under a tripartite agreement between CCC, Chittagong Sheba Sangstha (a local medical waste collection company), and WSUP. Under the agreement, WSUP provided a new vacuum tanker to CCC, which is leased to Sheba. CCC provides access to dumping and treatment sites, refers business to Sheba, and performs infrequent maintenance activities. Sheba operates the business according to quality and service standards set up by WSUP and CCC, invests in marketing, and assumes all operating costs. WSUP serves as the facilitator between the two parties, helping to identify and select the company, arranging lease negotiations, investing in demand creation, and building the operational and managerial capacity of both CCC and Sheba.

Leveraging pre-existing relationships

SWEEP's size and the ad hoc nature of its design and initial start-up means it did not have to undergo the official PPP process in Dhaka or Chittagong, avoiding the 18 month-long wait for national ministerial approval to begin operations (although the city-level process was also lengthy). The SMEs operating SWEEP are able to negotiate with and work alongside the relevant subnational bodies directly.

Regular Operational Activities	Frequent Maintenance Activities	Infrequent Vehicle Maintenance Activities	Receiving Demand	Mass Marketing	Regulatory Activities	Replacing and Increasing Fleet	Disposal and Treatment
SME	SME	DWASA	SME	DWASA	DWASA	DWASA	DWASA

Table 1: Allocation of responsibilities for the FSM service between DWASA and the SME.

In both cases, the pre-existing relationships between WSUP, the SMEs, the city's public bodies, and target communities were integral to the development and design of each PPP agreement. For example, the entrepreneur in Chittagong has good relations with many ward councillors and real estate agents, who can facilitate contact with potential customers in low-income areas. The Commercial Manager of DWASA was an enthusiastic early supporter, which paved the way for SWEEP's eventual implementation in Dhaka: institutional willingness to take risks on new partnerships and service delivery models is essential for PPPs.



Image: Emptying underway in Chittagong. **Credit:** WSUP

Results so far

SWEEP in Dhaka has been profitable since August 2015, serving more than 100,000 people in its first 18 months and becoming profitable in its fifth operational month. Data mined from the SWEEP start-up phase in Dhaka has been used to adapt the model in Chittagong, particularly regarding the different pricing bands for low-, middle-, and high-income households and institutions.⁵ Within two months of starting work in Chittagong, the SWEEP service provided by Sheba served 10,000 people, with 40% of completed jobs serving low-income areas.

SWEEP was the very first private mechanical emptying service in Bangladesh, and faced challenges overcoming governmental bodies' initial scepticism and fear of failure. However, SWEEP's success in Dhaka and its replication in Chittagong have proven the value of this kind of approach to city authorities, inspiring similar initiatives to tackle urban FSM.

⁵For more detail on SWEEP's progress to date, see WSUP (2017) From pilot project to emerging sanitation service: Scaling up an innovative Public Private Partnership for citywide faecal waste collection in Dhaka.

Next steps for the private sector

Increase services to low-income customers

One of the reasons for SWEEP's rapid profitability in Dhaka was the SME's initial focus on middle- to high-income consumers and commercial institutions, which made up 85% of their customer base at this point. However, a price analysis completed by WSUP in 2016 demonstrates that increasing services to low-income communities is feasible if costs are raised slightly for higher-income customers (to a proposed price point which data suggests customers are still willing to pay).

The original contract drawn up by GCC and DWASA did not specify a proportion of low-income customers to serve, hence the inclusion of a new target to ensure that 30% of GCC's customer base is low-income. When WSUP was facilitating the agreement between CCC and Sheba in Chittagong, the Dhaka experience ensured that pro-poor delivery was enshrined within the business model from the start. Sheba are contracted to ensure that at least 30% of their customers are low-income; these customers will be charged significantly less than those in higher income brackets. Sheba are also mandated to serve any low-income customer who requests the service. A performance-based contract would tie the lease fee to the percentage of low income customers served; this is still under discussion and there is some trepidation from CCC as this remains untested.

Demand creation

The owner of GCC in Dhaka anticipates increasing brand promotion in low-income communities, and aligning SWEEP with traditional community leaders and sales agents that live in those areas. WSUP are supporting GCC and Sheba's marketing drives, including an SMS, video, leaflet, and post campaign and hiring and training brand promoters. A joint promotional campaign by utilities and SMEs, with support from development partners, can be an effective tool for demand creation.

Next steps for the public sector

Enable the safe disposal and treatment of sludge

In Chittagong, while CCC has been very supportive of SWEEP, there are clear infrastructural shortfalls that could cripple SWEEP's development as it attempts to scale up. CCC does not yet have formal responsibility for FSM, and enforcement around safe dumping of sludge is lax. The city lacks adequate treatment facilities - a local NGO operates a small-scale decentralised drying bed which remains the only available faecal sludge treatment site for a city of around 4 million people. In Dhaka, SWEEP's equipment requires adaptation to navigate the narrow lanes in the slums.

There is therefore potential for PPPs in infrastructure and technology development. WSUP is currently working with MAWTS Institute of Technology in Dhaka to strengthen their capacity in providing sanitation technology - the government could take a lead role here in technology research and design. Other PPPs could also address the gap in treatment options, perhaps through an arrangement similar to SWEEP.



Image: Servicing a shared toilet in a low-income area in Dhaka. **Credit:** WSUP

Develop a regulatory framework for smaller-scale PPPs

Despite the strong national PPP framework, there is a lack of clarity over what could happen as SWEEP continues to expand nationally. The SWEEP model is so far small enough that the national PPP process does not apply to it - SWEEP is effectively a test case for PPPs of this scale in urban sanitation.

A clearer framework for PPPs of this size could be welcome for the clarity it would bring to private actors interested in moving into the sector, but the heavily bureaucratic nature of the current PPP process is not conducive to SMEs who would be subject to onerous costs and waiting times.

Nonetheless, some form of regulation of smaller PPP projects will be necessary to ensure that both parties to the contract fulfil their roles and abide by the contract: in Dhaka, for example, DWASA recently doubled the lease fee for the vacuum tanker, and the SME has little resource for redress.

Credits

This publication is produced by WSUP, a not-for-profit company that helps transform cities to benefit the millions who lack access to water and sanitation. We were created in 2005 as a response to the unprecedented urban explosion that has left cities unable to provide basic services to low-income communities. Since inception, we have helped nearly 15 million people access better water and sanitation services.

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