

SWEEP: transforming the market for emptying toilets in Bangladesh

Nearly half of the 55 million urban residents in Bangladesh lack access to sanitation facilities which enable faecal waste to be safely collected and removed for treatment.

As a result, huge quantities of faecal waste are being dumped into drains or rivers, contaminating the environment and posing a serious public health risk.

Tackling this issue is about much more than simply investing in toilets: there is an urgent need to find safe and affordable ways in which waste can be collected and treated.

A further challenge is the practice of unsafe manual emptying, where “sweepers” empty toilets using basic equipment and at great risk to their own personal health.

High up-front capital costs have provided a key obstacle to private sector engagement in the market for faecal waste collection and treatment.

To respond to this challenge, WSUP created a Public-Private Partnership (PPP), SWEEP, which has enabled the private sector to enter the market.

The model was tested in Dhaka and is now being scaled up across the capital, as well as into the country’s second city Chittagong and other cities in Bangladesh.



Credit: Zakir Chowdhury/Barcroft

Image: Dangerous working conditions in Bangladesh’s sanitation sector

How does SWEEP work?

SWEEP enables a private sector operator to lease equipment owned by the public sector, lowering barriers to entry into the market so that it can provide septic tank emptying services.

Through the use of a variable pricing structure, the business model achieves two fundamental objectives: financial viability for the operator, and affordability for low-income urban residents.

Customers benefit from the collection, safe transportation and treatment of waste from poor communities; and the public sector benefits from stable income from the lease of its equipment and capital assets, as well from the security that the waste will be safely dumped.

Snapshot of the Dhaka partnership

Launch date: April 2015

Turnover: US \$57,000 (to end of May 2017)

Time taken to reach break-even: five months

Net profit: US \$10,200 (to end of May 2017*)

Impact: 146,000 low-income residents (to end of May 2017)

*on an O + M basis

PPP in practice and WSUP's role

SWEEP was launched in 2015 when WSUP set up a PPP with an entrepreneur who was selected through a tender process. The contract allows the entrepreneur to lease two vacuum tankers, which were owned by the Dhaka Water Supply and Sewerage Authority (DWASA) but were unused. This lowered the barriers to entry, enabling the entrepreneur to provide an emptying service at minimal start-up cost.

In 2017, WSUP expanded SWEEP in Chittagong through the creation of a partnership between the Chittagong City Corporation and a local medical waste company, Chittagong Sheba Sangstha.

Operational support

Our experience has shown that there is a clear role for a partnership intermediary such as WSUP which can manage the partnership, ensuring that it meets all partners' goals and helping to overcome operational issues.

WSUP provides support to the SWEEP operators, helping them to develop a financially viable business model, supporting the marketing of their services to low-income customers and providing on-going technical assistance to ensure that the contract can be a success.

We provide capacity-building support to the public sector, helping them to develop and refine the parameters of the contract, including the minimum numbers of low-income consumers served; and, enabling the operator to safely dump at the city-owned treatment facilities.

"It was unbelievable that faecal sludge collection can be a profitable business, and now that WSUP has paved the way, CCC is committed to get more entrepreneurs involved in this business."



Shafuqul Mannan Siddique, Chief Conservancy Officer of **Chittagong City Corporation**.

"Without WSUP, I could not have done the negotiations with DWASA, and I would not have got a contract that would have enabled me to make a profit."



Kamrul Islam, owner of **Gulshan Clean and Care** – an operator of SWEEP in Dhaka.

Expansion plans

SWEEP has high scale-up potential, because of three key factors:

- SWEEP is uniquely positioned to provide high quality, financially viable and sustainable services to low-income customers.
- In Dhaka, SWEEP has a 5% market share. We estimate the value of the market to be US\$ 25million across 4 cities.
- Tankers are currently operational 50% of the time, with significant possibility to increase profitability.

SWEEP will target cities with 25 million inhabitants and annual market size of over US\$ 25million:

Dhaka City Rank (Size): 1 Population: 16 million	Annual Market Size: US\$ 16.5 million Sewerage Coverage: 20% Open Defecation: 1%	Chittagong City Rank (Size): 2 Population: 4 million	Annual Market Size: US\$ 5 million Sewerage Coverage: 0% Open Defecation: 1%
Barisal City Rank (Size): 9 Population: 1.9 million	Annual Market Size: US\$ 2.5 million Sewerage Coverage: 0% Open Defecation: 1%	Rangpur City Rank (Size): 11 Population: 3.4 million	Annual Market Size: US\$ 1 million Sewerage Coverage: 0% Open Defecation: 1%

A SWEEP customer

Monir Hossin lives in the Kalshi Balurmath low-income community, in Dhaka.



He is the chairman of the local toilet management committee. "Its good value for money," he says of the SWEEP service.

Partner with us

Since inception, SWEEP has been supported by Bill & Melinda Gates Foundation, The Stone Family Foundation, the UK Department for International Development (DFID), and UNICEF, and has recently been awarded a US \$2 million grant by Skoll Foundation to facilitate expansion across four cities in Bangladesh. To discuss how you can help us further scale up SWEEP, please contact partnerships@wsup.com.

"Based upon the track record to date and the interest and demand from the public and private sector players involved, the Skoll Foundation believes in the potential for SWEEP to create systemic change in the sanitation landscape of urban Bangladesh and is proud to support WSUP in its effort to scale and replicate this program."

Lucien Chan, Principal, Skoll Foundation