Embedding and scaling an innovative PPP model for citywide services in Dhaka, Bangladesh

Presented by
Habibur Rahman &
Cameron Dobbie
Urban Sanitation in Bangladesh

- Bangladesh is one of the most densely populated countries in the world.
- Almost no OD but only 60% of pop. use an improved sanitation facility.
- Very little sewerage in in Dhaka.
- 69% of human waste in Dhaka is discharged directly into surface drains.
- Households, businesses and institutions rely on OSS (mainly pits and septic tanks).
- Traditional pit emptiers provide emptying services - a high proportion of which discharge directly to the open environment.
Opportunities and Challenges: Flow of Human Waste in Dhaka

- 3% safely disposed or treated
- 11% safe transport through sewers
- 9% unsafe transport through leaking sewers
- 1% safe transport by vacuum tanker
- 9% unsafe manual emptying by sweepers
- 69% connected to surface drains
- 97% not effectively treated or safely disposed
- 9% not effectively treated
- 1% not effectively treated or safely disposed
Launching & Embedding an Urban Sanitation PPP

The Building Blocks

- Clarity of public sector mandates
- Legal and regulatory framework for involvement of the private sector
- Well-defined division of roles and responsibilities embedded in precise contract terms
- Enabling environment for private sector engagement / investment
- Transparency in procurement
Launching & Embedding an Urban Sanitation PPP
The Model

Customers:
- Low-income
- High-income
- Institution

LESSOR: PUBLIC AUTHORITY
- Lease of vehicle reduces up front risk
- Licence to dump

LESSEE: PRIVATE OPERATOR
- Safe emptying service provided by private sector
- Min % of low-income customers

DISPOSAL

SERVICE FEE

LEASE AGREEMENT

LEASE FEE

DEPOSIT

Licence
Launching & Embedding an Urban Sanitation PPP

The Intervention

- Safe, affordable & mechanical emptying service
- PPP arrangement with well-defined roles & responsibilities
Gulshan Clean & Care - Top Level Data (Lifetime)
SWEEP in Dhaka: Business Performance
Key characteristics of the model & performance over 45 months

1. Focus on **medium and large customers** to establish commercial viability
2. **Differential pricing model** to facilitate service offering to low-income customers
3. Clause introduced mid-2017 mandating GCC to ensure **30% of customers are lower-income**
4. Entrepreneurs have **flexibility to set price and respond to the market** accordingly

- 11,122m³ FS safely managed
- 257,011 customers served
- US $ 112,064 revenue earned
- US $ 20,121 profit generated
Scaling the Model & Enterprise Development
Engaging the Private Sector

- Harnessing commercial expertise
- De-risking entry
- Generating competition
- Stakeholder management
- Considering new types of model

Dhaka
population

16m

Annual Market Size: US $ 17m

Sewerage Coverage: 20%
Scaling: Managing price across market segments
Average monthly price per m3 sludge emptied in different market segments

Gulshan Clean & Care
Average monthly price per m3 sludge emptied

USD

MONTH

AV Price p/m3 INST  AV Price p/m3 HIC  AV Price p/m3 LIC
Scaling: Managing price across market segments
Average monthly price per m3 sludge emptied in different market segments

Gulshan Clean & Care
Average monthly price per m3 sludge emptied
Enterprise Development
Where can we assist to build capacity?

- Utilisation within portfolios
- Segment targeting
- Service differentiation
- Training and technical support
- Financing for expansion
Summary & Conclusions

The SWEEP model has been successfully embedded through...
- well-defined division of public and private sector roles and responsibilities
- focus on medium and large customers to establish commercial viability
- differential pricing model and contractual requirement to serve LICs

...there are considerable opportunities and challenges for scaling...
- with 69% of human waste entering surface drains
- as the business continues to mature and capacity is increased

... and new frontiers which must be further explored...
- to consider new financing mechanisms
- to activate further the FSM institutional and regulatory framework