Scheduled desludging and urban sanitation system strengthening

CSE Webinar

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Summary of key messages

Complex decisions are required, governments need information, tools and support to apply them

FSM is not "*one size fits all".* Short, early data collection and pilots provided suitable timely data

Learning through doing provided local government with **knowledge and experience** but needed a conducive environment to support motivation

Desludging programs need to be considered **within broader citywide urban sanitation context**

Progress was made, analysis and planning tools were developed and applied, but there is still a **long way to go** to reach sustainable desludging services

Presentation outline

1 Background to development of three **scheduled desludging programs** in Bangladesh, Indonesia and Nepal

2 **4 key strategies** underpinning an experiential learning approach

3 **3 lessons** applicable for donors, partners and national governments

4 **Outstanding areas** to progress desludging

Local governments are ultimately responsible for FSM but need support

a) Practical responsibility for FSM typically falls on local governments

b) FSM is complex and current management capacity is limited

c) Development partners and national government need to **equip local government** with skills to implement FSM programs

d) In developing a regular desludging program, government gains skills **applicable to broader urban sanitation management**

Cases from four cities in Asia

City	Inhabitants	Prior Emptying	Treatment
Khulna Bangladesh	1.5 million	Vacuum truck (government and community organisation) and mostly manual emptying, <12% and <2% ever emptied	Formal dumpsite
Kushtia Bangladesh	240,000		Co-composting
Kalianda Indonesia	120,000	Government vacuum truck, <10% emptied in previous 5 years	Upgraded treatment
Birendranagar Nepal	110,000	Private vacuum truck, only 25% systems previously emptied	Official dumpsite

Features in all cities:
➢ Predominantly pour flush toilet to pit latrine or septic tank.
➢ Existing (informal) on-demand emptying service

Experiential learning approach to develop scheduled desludging programs

Building local government capacity for broader sanitation management and investment decisions

Strategy 1: Rapid data collection

Early, fast, appropriate preliminary data

- Rapid Technical Assessment (RTA) a FSM specific data collection approach early, small sample, instant data

- Local government involved – increased knowledge of sanitation issues and skills to survey and manage in future


- ✓ Cost and time effective – Small sample but sufficient for preliminary program design, next assessment targeted

- ✓ Government developed skills but lacked motivation to conduct further surveys independently

Strategy 2: Co-develop program and finance options

Stakeholder preferences vary

- Participatory approach to use the Septage Management Decision Support Toolkit

- Intensive stakeholder involvement to input local data (cost, time, technical)
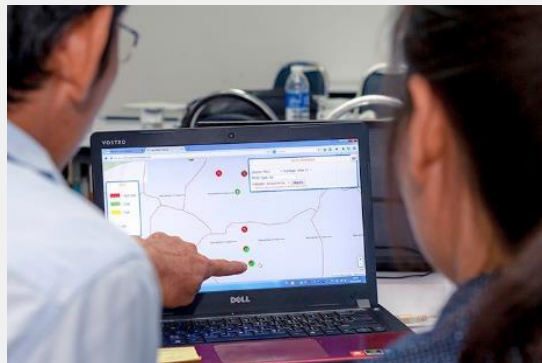
✓ Stakeholder preferences varied between cities (ie. private sector inclusion, recovery of costs, market coverage).

✓ Achieved locally appropriate and acceptable models

✓ Increased government understanding of FSM complexities but also the realisation FSM could recover costs.

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Choosing between scheduled, block and on-call emptying

|	On-call (on-demand, responsive)	Scheduled (mandatory, organised)	Block (planned, voluntary)
pros	+ Low management requirements + Direct transaction between household and provider	+ Not reliant on customer motivation + Formalising providers allows for stronger regulation and monitoring, set tariffs + Timely, regular emptying + Even spread of demand, efficient use of equipment + Reduced transport costs + Ability to track orders	+ Customers have easy access to services through proactive service delivery + Promotion educates customers about need for emptying Can be implemented before local regulations, tariffs and services are finalised for scheduled emptying program
cons	- Decision-rests with household - Non-timely, 'emergency" emptying - Customer may choose cheapest, unsafe provider - Monitoring and regulation has been absent or limited, but is posisble	- Needs customer database - Higher-level admin needs - Time required to agree on model, tariff, regulations can be long - Even if compulsory, needs community awareness and education	- Typically 'one-off' and does not necessarily lead to regular emptying - Customers may refuse service if no deposit paid or emptying lags promotion

Strategy 3: Conduct small, early pilots

Understand gaps and course correct

Two 2-4 day pilots early in program in Khulna Bangladesh

Aim to test assumptions :

- Technical logistics of emptying
- Consumer preferences and willingness to pay
- Operator capacity to manage scheduled emptying
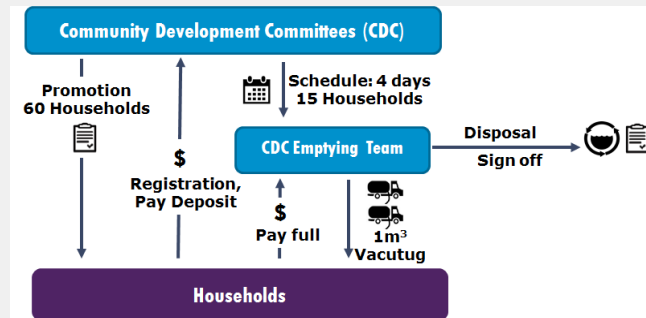
✓ Early pilots allowed for change in approach before institutional aspects were finalised and highlighted capacity gaps

# Strategy 4: Understand the legal landscape

Upfront legal and institutional assessment

- Upfront legal review to understand national and local regulations and policies on urban sanitation

- Support government design programs compliant with local requirements and develop new regulations

✓ Ensure institutional changes and regulations were started early. Take time and could delay the program.

✓ SNV engaged with national government towards strengthening national coordination and

Key lessons

Take-aways from this approach and
urban sanitation systems strengthening
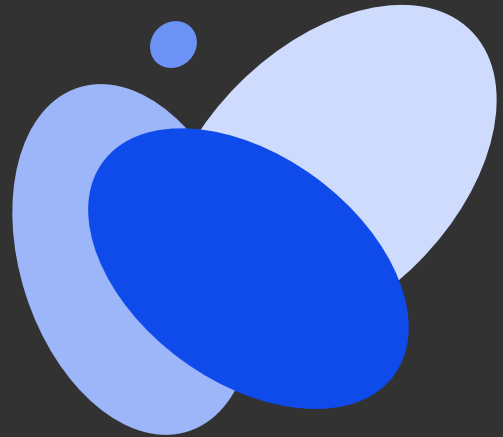
Lesson 1: Rapid data collection can be appropriate for preliminary design

Overly detailed or large scale/census not needed initially

FSM is **not a 'one-size-fits-all'** solution, approach varied between cities

Rapid assessment approaches were found to hold value

Septage management toolkit was useful, however its embedded assumptions need consideration

Small 1-2 day pilots in Khulna early in the program tested key assumptions and allowed for course correction

Road access

Accessible by large vacutug (Tractor or mini Tata) (15)

Accessible by smaller vacutug mounted on 3 wheelers (26)

too narrow for any vehicles (25)

Accessible by medium vacutug mounted in Tatalice (62)

Lesson 2: Local government involvement from the outset strengthens capacity and systems

- "**Learning while doing**" builds capacity for ongoing management - planning, finance, database, technical and customer skills
- Data provided basis to trigger commitment

A conducive environment is important for:

- Increase political will
- Private sector interest
- Consumer demand

Lesson 3: Desludging must be considered as one part of a bigger sanitation challenge

- One part of sanitation service chain and within the broader citywide urban sanitation context, otherwise **benefits are limited** and **institutional aspects remain fragmented**

- Contextualised solutions should be based on local drivers and towards incremental improvement

- What is the best use of time and investment? How to prioritize achieving a city's environmental and health objectives.

Key areas still in need of attention

✓ Planning for FSM investment and prioritization – coordination of tools for health, environment and investment

✓ FSM "black box" – need to build up the evidence base of tested desludging options to support decision makers

✓ Technical challenges still exist - dense urban areas, effective transfer stations, effective containment and treatment options
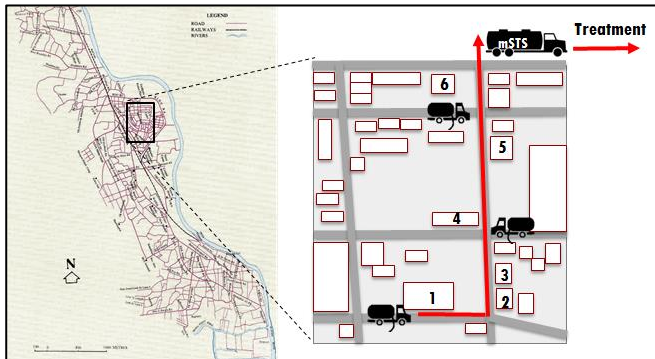
Thank you

This presentation is based on a [report](#) and [learning brief](#)
"Scheduled emptying services as an entry point for change".

For further information please contact us at
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