Challenge Critical: absence of faecal sludge management shatters the gains of improved sanitation coverage in Bangladesh

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Faecal Sludge Management Management Conference
Durban - 29 October 2012
Sanitation situation in Bangladesh

Open defecation reduced to 4.4% in 2010 which is a significant achievement.

Open defecation

- 2003
- 2010

www.wateraid.org/bangladesh
Sanitation: What next?

Does it mean that magnitude of the problem is reduced?
Magnitude of the problem

» Faecal sludge generation: 80,000 MT/day

» Faecal sludge treated: 960 MT/day

» What happens to the remaining volume?
WaterAid conducted a research on FSM

» funded by

The research was basically a ‘situation analyses’ of 3 cities (Dhaka, Khulna and Faridpur) regarding faecal sludge management
Situation in Dhaka where there is no sewerage coverage

80% areas of Dhaka city are not covered by sewerage network

More than half of the buildings in uncovered areas do not have any septic tank/ pit

Availability of septic tanks in residential buildings

- Yes: 45%
- No: 55%
Where does sludge go if no septic tank is available

55% latrines are directly connected to surface water bodies
Toilet types in 3 cities

Predominant pit latrines require quick emptying

Dhaka
Khulna
Faridpur

Different types of pit latrines
Toilets with septic tank
Open defecation

www.wateraid.org/bangladesh
How emptying takes place?

Manual emptying dominates the market
Frequency of emptying

Frequency of emptying is high

Primary treatment within the pit is less likely to take place

Is this open defecation *en masse*?

<table>
<thead>
<tr>
<th>Frequency of emptying</th>
<th>Dhaka %</th>
<th>Khulna %</th>
<th>Faridpur %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3 times / year</td>
<td>26.30</td>
<td>6.80</td>
<td>13.20</td>
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<tr>
<td>Once per year</td>
<td>4.90</td>
<td>0.00</td>
<td>2.60</td>
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<tr>
<td>Once every 2 years</td>
<td>29.30</td>
<td>16.70</td>
<td>23.80</td>
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<tr>
<td>Once every 3 years</td>
<td>15.50</td>
<td>11.90</td>
<td>10.30</td>
</tr>
<tr>
<td>Once every 4 years</td>
<td>6.80</td>
<td>11.60</td>
<td>13.20</td>
</tr>
<tr>
<td>Between 5 - 10 years</td>
<td>13.60</td>
<td>35.00</td>
<td>26.20</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>3.50</td>
<td>18.00</td>
<td>10.60</td>
</tr>
</tbody>
</table>
How mechanical transportation takes place?

» Using mechanical emptying device - locally made vacutugs

» In Dhaka, 2 NGOs run programme

» In Khulna and Faridpur the municipal authority manages
Appropriateness of this mechanical device – **vacu-tug**

- **High investment cost**
- **Low efficiency:**
  - Slow moving transport (time intensive)
  - Cannot pass easily if the road is steeper
  - Length of suction pipe is shorter
- **Other difficulties are like:**
  - Cannot move through narrow roads
  - Generally maintenance is difficult
- To avail this service from CC/municipality, one has to proceed through formal administrative procedures
- **Costly compared to manual service**
Potential costs of non-management of FS

**WASH Allocation as % of GDP**

- 2007-08: 0.26
- 2008-09: 0.21
- 2009-10: 0.33
- 2010-11: 0.41
- 2011-12: 0.41
- 2012-13: 0.25

**WASH Allocation as % of ADP**

- 2007-08: 6.24
- 2008-09: 5.59
- 2009-10: 7.67
- 2010-11: 8.21
- 2011-12: 8.01
- 2012-13: 4.77
Potentials of sludge

- Bangladesh uses around 3.5 million tons of fertilizer each year of which about 2.6 million tons are imported.
- Government provides subsidy @ Taka 18/kg to the farmers.
- If we could convert the entire amount of sludge produced in the country into proper fertilizer, that will turn up to 3 million tons.
Bangladesh desperately needs intervention on FSM

Conclusion
Thank you