BUILDING BLOCKS FOR EFFECTIVE FECAL SLUDGE MANAGEMENT IN PERI-URBAN AREAS:

THE ROLE OF SMALL-SCALE SERVICE PROVIDERS IN MAPUTO

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Durban, October 2012
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Scale of the Issue

- <15% seweried
- ~1M people with on-site sanitation
  - @ 50 litres/cap/yr ≈ 150m³/day
  - Only a small fraction delivered to treatment
  - Inadequate treatment, exacerbated by possibly toxic industrial effluents
- Unsewered sanitation services provided almost entirely by informal sector
Peri-urban Sanitation in Maputo

- Improved latrine, 30%
- Traditional latrine, 24%
- Improved traditional latrine, 9%
- Pour flush, 16%
- WC, 18%
- No toilet, 1%
- Other, 2%

Image: Sanitary conditions in a peri-urban area.
The Sanitation Chain in Maputo
Who does What?

Regulator

Water and Sanitation Infrastructure Board

National Water Directorate

Municipality

Providers of goods and services

Operators of public services

NGOs and other partners

Customers

Regulation

TA, capacity-building

dev't

Monitoring & promotion

Policy, strategy, legislation

Coordination

Goods and services

Working well

Working poorly

Not working
SSPs in Other Sectors in Maputo

- **Water supply**
  - Currently 500 SSPs
  - Serve 25% of residents
  - Ill-defined and unregulated services
  - Risk of overexploitation of groundwater

- **Solid waste management**
  - Currently 50 SSPs
  - Primary solid waste collection in peri-urban areas
  - Contracted and regulated by Maputo Municipal Council
Fecal Sludge Management Services (1)

- **Informal Sector**
  - Bucket + burial/dumping
  - Latrine (0.2-0.4 m³): $7-13; Septic tank $30-70
  - Unhygienic for operators and environment
  - Backyard burial sites mostly full by now

- **CBOs**
  - VacuTug (0.5m³) + storage + transfer to treatment
  - Per service $7-13
  - Unable to repay capital cost, but covers O&M
  - Transfer is a major cost
  - Unable to manage thick sludges
Faecal Sludge Management Services (2)

- **Micro-enterprise (UGSM)**
  - Bucket/handpump/trash pump + transfer to treatment
  - Transfer by 5T truck with 2m³ plastic water tank
  - $20-60 depending on facility and ability to pay
  - Need to discard clothing after use of bucket system

- **Vacuum trucks**
  - 3-10m³ truck dumping directly at treatment plant
  - $30-100 depending on volume
  - Discharge fee of $140/month (~50 loads?)
  - Unable to manage thick sludges
Conclusions

- Planners failed to develop a strategy for SSP involvement in water supply
- In contrast, Local Government took the leading role in designing and implementing a management framework for SWM
- Need a strategy to build on SSP experience in FSM and incorporate them into the service chain
Way forward (1):
Options for Integrating the Service Chain
Way Forward (2)

- Develop a strategy to integrate SSPs formally into a FSM framework for Maputo
- Develop and implement viable and sustainable business models for provision of FSM services, providing financial and technical support as needed
- Develop sustainable subsidy mechanisms if needed
- Develop regulatory framework
Obrigada!