Strengthening the Operation & Maintenance Sector for Servicing Decentralized Urban Sanitation Infrastructure in Karnataka, India

Stockholm Water Week, 24th August, 2014

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25 Countries in 3 Continents
Why O&M matters

- Without O&M, no value addition along the sanitation value chain
- Moreover, without O&M, status after project can be worse than before intervention

Source: BMGF
• Cities wish to have more **centralized** sanitation infrastructure, BUT cities **have and will have** more **decentralized** sanitation infrastructure

• Decentralized sanitation infrastructure sector or market is **fragmentally-regulated** on papers, and informal in nature

• There is **no or little incentive** for O&M of decentralized sanitation infrastructure (especially the later part of the value chain, problems with public good characteristic)
Rationale for the Project

• Social stigma attached to sanitation: the O&M service of Decentralized sanitation infrastructure is socially not attractive
• Fail and fix is the current dominant approach for all development
• Decentralized sanitation infrastructure is often promoted as zero maintenance
• No “Professional”/Certified service provider
• Lack of O&M for decentralized sanitation infrastructure is the biggest obstacle for scaling-up
Project Objectives

Support city governments to create enabling environment for O&M of Decentralised sanitation infrastructures

Strengthen the supply side of O&M practices for decentralised urban sanitation infrastructure

Disseminate knowledge of new approaches for O&M of decentralised urban sanitation infrastructure
80% of the 625 decentralized system do not function as designed in Bangalore.

Low O&M = bad reputation of DSI

80% of the 625 decentralized system do not function as designed in Bangalore.

Total No of Public Toilets in Bangalore = 502
Working Condition = 220 (43%)
Lack of O&M $\Rightarrow$ a vicious circle and downward spiral for business environment

1. Impact on operational performance
2. Reduced service levels
3. Reduced willingness to pay
4. Lack of revenue
5. Lack of O&M

This forms a vicious circle and downward spiral for business environment.
Expected Key Interventions

1. Understand the O&M sector /Market
   - Technical landscape study
   - Financial landscape study
   - Market Landscape study

2. Development of 10 improved O&M service packages
   - Service packages: O&M Manuals, best practices, O&M tools etc. for different technologies and its process/services
   - Develop certification system for service package

3. Develop Business plan for delivery of O&M Service Package
   - Develop plan for improvement of existing business model (informal)
   - Develop new formal market approach based business plan
Expected Key Interventions

**Engagement of private sector players**
- Identify and train existing actor
- Invite new players from market for O&M business plan

**Deliver O&M services**
- Facilities provide service to owners of decentralized sanitation

**Develop and Launch capacity building program**
- Service demanders
- Service Providers
- Link capacity building to certification
- Link capacity to existing training institutions
**Work Progress**

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DSI Governance is complex ‘on paper’

Institutional Framework

Central Government

State Government

Local Government

Technical Wings

Ministry of Environment & Forests
Ministry of Urban Development
Ministry of Housing & Poverty Alleviation
Ministry of Social Justice Empowerment
Ministry of Human Resource Development
Ministry of Consumer Affairs, Food & Public Distribution
State Pollution Control Board (SPCB)
CPHEEO
CPCB
CPWD
BIS
Public Works Department/Public Health Engineering
Directorate of Municipal Administration
Karnataka Urban Infrastructure Development & Finance Corp
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Ministries
- Ministry of Environment & Forests
- Ministry of Urban Development
- Ministry of Housing & Poverty Alleviation
- Ministry of Social Justice Empowerment
- Ministry of Human Resource Development
- Ministry of Consumer Affairs, Food & Public Distribution
- State Pollution Control Board (SPCB)
- CPHEEO
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- CPWD
- BIS
- Public Works Department/Public Health Engineering
- Director of Municipal Administration
- Karnataka Urban Infrastructure Development & Finance Corp

State Government Department
Bruhat Bangalore Mahanagara Palike

Urban Local Government
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<th>DSI Governance is complex ‘on paper’</th>
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<td>Water (Prevention and Control of Pollution) CESS Act, 1977</td>
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<td><strong>State Government</strong></td>
<td>Statutes of the Central Government</td>
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<td>Bangalore Metropolitan Region Development Act 1973</td>
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<td>The Slum Areas (Improvement And Clearance) Act, 1956</td>
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<td>Karnataka Municipal Corporations Act, 1977</td>
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<td><strong>Local Government</strong></td>
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DSI Governance is complex ‘on paper’

Planning Commission – Steering Committee Reports
National Mission on Sustainable Habitat (NSHM)
   National Urban Sanitation Policy (NUSP)
      CPHEEO Manual
      CPCB Standards
      ILCS Guidelines
National Building Code (Bureau of Indian Standards)
School Sanitation and Hygiene Education Programme

State Sanitation Strategy
   KSPCB Standards
   State Level Municipal Building Rules

NUSP
NSHM
City Sanitation Plan
2005 Administrative Reforms Commission
DSI is a “free market” on ground

• Although there are more than 1000 decentralized wastewater treatments system in Bangalore, city and the state government has no list and awareness of about the status

• Project has prepared database of wastewater treatments system in city with 563 projects data updated

• Although many institutions responsible, but decentralized sanitation infrastructure has no institutional ownership
Although many private players are interested to provide O&M Service, but there is fear of getting into legal complications due to strict manual scavenging act.

Decision makers sees professionalized O&M service as solution to manual scavenging problem.

Most of the current service providers are traditional manual scavengers.
Want to make resource recovery and safe reuse (RR&R) solutions viable at scale and protective of public health?

- Health, savings, dignity
- Protection of water resources
- Fertilizer, water, energy

Source: BMGF

- Start with O&M!
- What will not be maintained does not need to be built!
- Thank you...