Cooperation AIT – BORDA on the application of FSM Toolbox in Project Cities (Baseline Assessment)

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BORDA, AIT
AIT-BORDA Cooperation: 
“Regenerative Sanitation Knowledge Hub”

- Testing site for Decentralized Wastewater Treatment Systems
- Demo / training site for Decentralized Wastewater Treatment Systems
- Quality Management for on site / decentralized systems in Southeast Asia
- Setup liaison of Good Practices and standards to donor community
- Joint application and dissemination of Best Practices on tools, modules and service packages (e.g. FSM Toolbox)
FSM Toolbox: Demand-driven “One-stop database”

Necessity to enhance the capacity of FSM Practitioners

A common platform for easy accessibility to FSM Resources

Fill in the existing gaps

www.fsmtoolbox.com
Introduction FSM Toolbox: Program Workflow & Tools

FSM Program Workflow

1. Exploratory Study
2. Country Strategy Programming
3. Defining the Need & Scope of Strategies
4. Strategy Design Options
5. Appraisal & Approval
6. Implementing the Strategy
7. Operation & Maintenance
8. Monitoring
9. Review & Correct

Tools and document resources laid out along the workflow

- Assessment
- Planning
- Advocacy & CB
- Monitoring

8 Interactive Tools and over 200 Resource Documents
Introduction FSM Toolbox: Situational Assessment Tool

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Tools and document resources laid out along the workflow

- Assessment
- Planning
- Advocacy & CB
- Monitoring
- Proposal & TOR Templates
- Sample Reports
- Guidelines

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Introduction FSM Toolbox: Situational Assessment Tool

- Diagnostic tool to assess various aspects along the service chain (containment, emptying, transport, treatment, reuse), e.g.:
  - Demographic and geographical
  - Legal Framework and enforcement
  - Finance
  - Socio-cultural aspects

- FSM Service Chain Scorecard + Service Chain Report
FSM Program Workflow

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Introduction FSM Toolbox:
Financial and Technical Assessment Tool

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Introduction FSM Toolbox:
Financial and Technical Assessment Tool

- Diagnostic tool to identify technical and financial viability, regarding e.g.:
  - FS Volume
  - Number of trucks
  - Treatment technology
  - Cost & financing, debt, revenue

- Dashboard display of selected technologies and financial projections

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**FS Treatment Flow Chart**

**Primary Treatment Options**

**Estimated by FS Generation Rate**

- Estimated annual FS generation rate per capita: 0.25 m³/capita/year
- Estimated annual FS generation rate per household: 1.00 m³/household/year
- Percentage of septic tanks that are desludgable: 83%
- Estimated annual FS generation rate in coverage area: 25,000 m³/year
- Estimated annual FS volume to be desludged: 20,750 m³/year
- Number of working days per year for FS trucks: 365 working days/year
- Estimated FS volume per day from households: 57 cubic meters per day

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**FSM4**
FSM Toolbox:
Dissemination and application

- 1 city each in Laos, Indonesia, Myanmar in collaboration with BORDA
- 33 Indian and 1 Nepalese cities in collaboration with CDD Society (Bangalore)
Application of baseline assessment tools
Sanitation situation in cooperation cities

• **Luang Prabang (Laos)**
  – Ca. 60,000 inhabitants
  – Most households equipped with septic tank
  – Desludging services provided under Local governmental setup
  – Sludge disposal into facultative aerobic lagoons
  – Master Plan for Drainage and Sewerage Systems

• **Sleman (Indonesia)**
  – Ca. 1,135,000 inhabitants
  – Septic tank coverage: 78%
  – Desludging services provided on on-call basis
  – Sludge partially treated in regional treatment plant (30km distant)
  – City Sanitation Strategy (1 FSM plant to be constructed in 2017; more to follow)
Application of baseline assessment tools

General Findings

- **FSM Toolbox**
  - Compiles Local Governments’ needs for comprehensive FSM planning tools
  - Demonstrates of the complexity of FSM
  - Provides comprehensive orientation for FSM baseline assessment as basis for planning
  - Supports completion and verification of existing data
  - Triggers Local Governments’ needs for interventions or improvements as it indicates gaps and deficiencies
Application of baseline assessment tools

General Findings

• FSM Toolbox
  – Requires and fosters participatory application
  – Enhances Local Governments’ capacities
  – Allows for flexibility in terms of progressive implementation (technical / budget-wise)
  – Provides academia with experiences from practitioners for further development of the tool
Application of baseline assessment tools

Challenges

• Perception on the purpose of the FSM Toolbox

• Availability, completeness, accuracy and validity of data

• Existing targets (scope of interventions, priorities), set of actions, planning, design and/or implementation

• Language barriers
Application of baseline assessment tools

Lessons Learnt

• Early application of baseline component

• Participation of all relevant stakeholders

• Application of advocacy and awareness raising media

• Couching by 3rd parties is a supporting factor
  – Support with development of data collection and validation approaches
  – Guidance for further interventions
Outlook

• Further development of FSM Toolbox
  – AIT to further cooperate with BORDA and other organizations to improve the FSM Toolbox
  
  – Guidelines for data collection methodology and validation
  
  – Set up regional expert pool to facilitate FSM toolbox application

• Further application in several cooperation cities in Southeast Asia as essential module to manage urban waters in an integrated manner
Food for thoughts:

“A tool is a tool, it is not the solution!

Empower those in charge of FSM to apply a comprehensive tool in a smart way.”
Thank You!

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