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**

Donors — City Planners — Consultants

FSM Faecal Sludge Management T O O L B O X

www.fsmtoolbox.com

INTERACTIVE TOOLS AND OVER 200 DOCUMENTS

Assessment — Planning — Monitoring — Advocacy & CB

Proposal & TOR Templates — Sample Reports — Guidelines

FSM4

Introduction FSM Toolbox:
Program Workflow & Tools

FSM Program Workflow ➡️ **Tools and document resources laid out along the workflow**

Advocacy

Capacity Building

FSM Media

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**

Assessment

Planning

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Situational Assessment Tool

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FSM4

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

Introduction FSM Toolbox:
Financial and Technical Assessment Tool

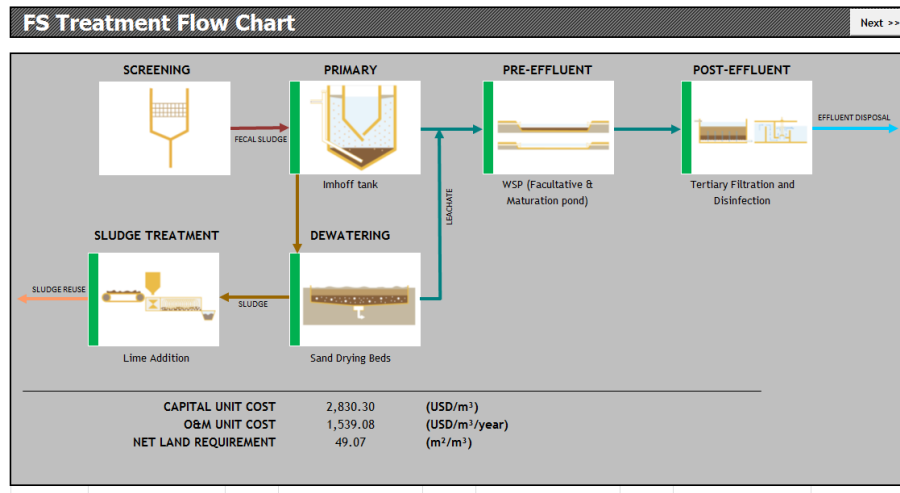**FSM Program Workflow** ➡️ **Tools and Document resources laid out along the Workflow**

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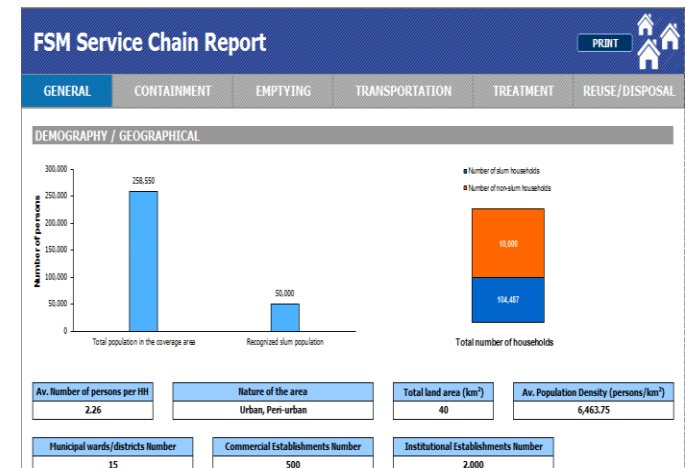
Introduction FSM Toolbox:
Financial and Technical Assessment Tool

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

Estimate by FS Generation Rate		
Estimated annual FS generation rate per capita	0.25	m^3/capita/year
Estimated annual FS generation rate per household	1.00	m^3/household/year
Percentage of septic tanks that are desludgable	83%	
Estimated annual FS generation rate in coverage area	25,000	m^3/year
Estimated annual FS volume to be desludged	20,750	m^3/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

- Dashboard display of selected technologies and financial projections

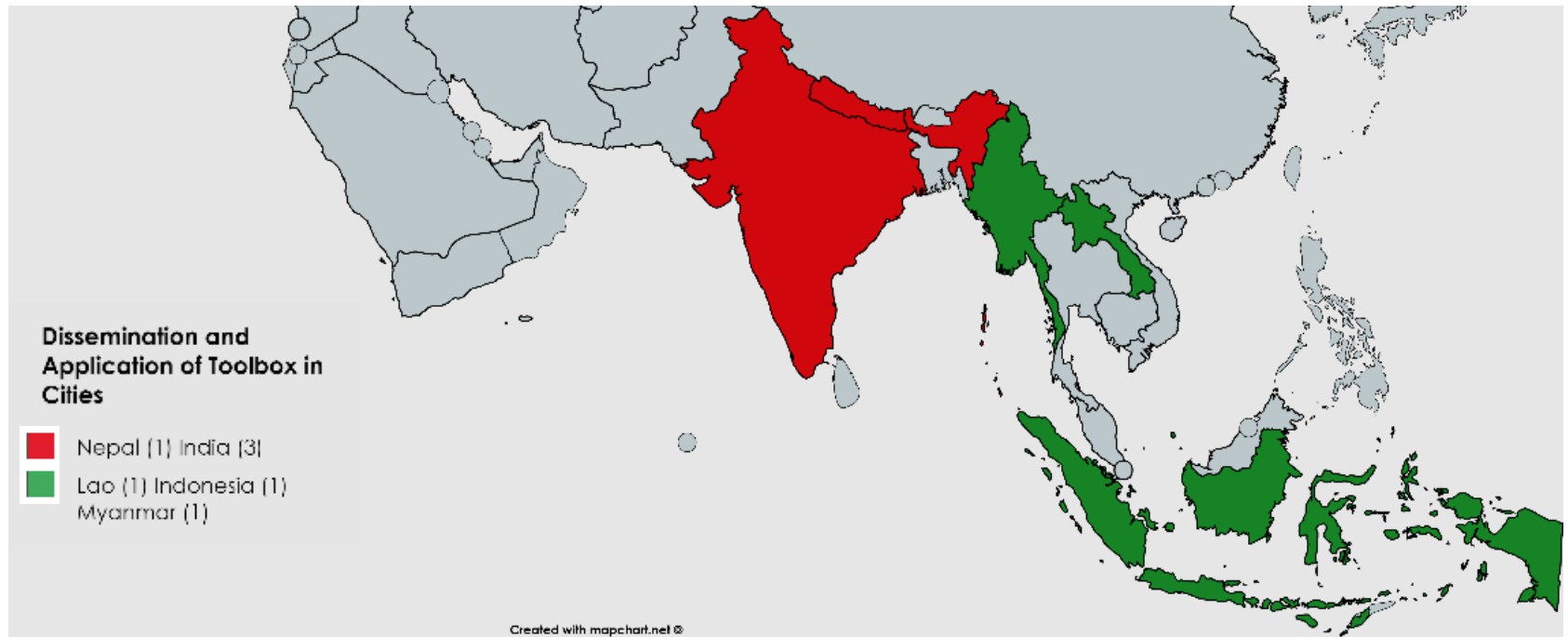**Primary Treatment Options**

FS Treatment Flow Chart

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)

Dissemination and Application of Toolbox in Cities

- Nepal (1) India (3)
- Lao (1) Indonesia (1) Myanmar (1)

Created with mapchart.net ®

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, completeliness, 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

Conclusion

Food for thoughts:

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

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Empower those in charge of FSM to apply a comprehensive tool in a smart way."

Thank You!

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