



Roles and Responsibilities of Public and Private Sector Actors in FSM: A Tamil Nadu Case Study

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Stakeholders in Sanitation Service Delivery

ACCESS

CONTAINMENT

EMPTYING & TRANSPORTATION

TREATMENT & REUSE



- ULBs
- NGOs
- Households
- State & Central Govt



- ULBs
- Sanitation Workers
- Private Operators



- ULBs
- Private Players
- Households
- State Government



- ULBs
- Farmers
- Households
- Private Players
- NGOs

Fecal Sludge Management (FSM) in Tamil Nadu

Tamil Nadu Urbanisation Structure:

- 664 Urban Local Bodies including 15 Municipal Corporations, 121 Municipalities and 528 Town Panchayats
- 31 million urban population

ACCESS & CONTAINMENT

- Majority of households connected to **OSS**
- OSS often of **non-standard sizes and design**
- Large number of **community toilets** operated and maintained by Self-Help Groups

EMPTYING & TRANSPORTATION

- **On-demand** service provided by **~9,000 private de-sludging operators**
- Unsafe disposal regulated through a **Standard License Agreement**
- **Occupational health and safety** being enabled

TREATMENT & REUSE

- Significant investment in **FSTPs** and **co-treatment**
- **Private firms** contracted for **construction** of ~60 FSTPs
- **O & M** to be **outsourced** by Urban Local Bodies
- **Reuse** of treated water and **co-composting** of dried sludge being enabled

Strengthening the Urban Sanitation Institutional Framework

- Institutional framework is dependent on service models adopted by the State
- Freeze on government recruitment influences service models and approach to strengthening the institutional framework

Outcomes:

1. FSM service delivery institutionalised
2. Strengthened collaboration of public and private sector to improve capacities for and aid scaling of FSM service delivery

Objectives:

1. Identify gaps and improvements required in sanitation processes
2. Strengthen existing and define new roles and responsibilities of public actors

Approach:

1. Map existing sanitation processes by components of the sanitation chain
2. Understand public as well as private sector roles and responsibilities
3. Map staffing structures for different types of urban local bodies

Tamil Nadu Institutional Framework

| Component / Activity | Collection & Conveyance | Treatment & Reuse |
|-------------------------|---|--|
| Planning & Design | State Govt. [^] ** (sewers) | State Govt. |
| Implementation | State Govt. (sewers) Private sector (FSM) | State Govt. (STPs) Private Sector & ULBs (FSM) |
| Capital Investment | State Govt. (sewers) Private Sector & ULBs** (FSM) | State Govt. |
| Operation & Maintenance | State Govt. (sewers) Private sector & ULB- managed (FSM) | ULBs (STPs) Private sector & ULB- managed (FSM) |
| O & M Costs | ULBs (sewers) Private sector (FSM) | ULBs |
| Monitoring | ULBs (FSM) | PCB |

Access & Containment: Households mostly responsible for all aspects related to provisioning and maintaining systems

[^]Includes: Municipal Administration & Water Supply Department, Commissionerate for Municipal Administration and Directorate of Town Panchayats, and parastatal agencies

**Main cadres responsible for sanitation services: Administration, Engineering and Public Health cadres

ULB – Urban Local Body
PCB – Pollution Control Board

Mapping Urban Sanitation Processes and Addressing the FSM Gaps

ACCESS & CONTAINMENT

EMPTYING & TRANSPORTATION

TREATMENT & REUSE

Public

- Building permissions for Residential / commercial / institutional buildings: super and sub-structure
- Provisioning of new Individual Household Toilet (scheme-based)
- Provisioning of new Community Toilet (CT)/Public Toilet (PT)

- Registration/Licensing of Desludging Operators
- Provisioning (O&M) of desludging services

- Operation and Maintenance of Decanting Stations
- Construction and Operation and Maintenance (O&M) of Sewage Treatment Plant (STP)

Private

- Operation and Maintenance (O&M) of CT/PT

- Providing on-demand desludging services

- Construction of WWTPs at apartments/commercial establishments

New

- Conversion of insanitary toilet to sanitary toilet

- Monitoring of Desludging Operations

- Construction and O&M of Fecal Sludge Treatment Plants (FSTP)

Strengthening Roles and Engaging the Private Sector for Existing Processes

| Sanitation Processes | Existing Activities | Existing Staff | Proposed Activities | Proposed Staff | Private Sector |
|---|--|---|---|--|--|
| Provisioning of new CT/PT | <ul style="list-style-type: none"> Approval for construction of CT/PT Review of designs, costs submitted. Contracting of CT/PT construction. | <ul style="list-style-type: none"> Commissioner/ City Engineer City Engineer/ Junior Engineer | Toilets and containment systems to be inspected against the new Tamil Nadu Combined Development and Building Rules, 2019 (TNCDBR) | Sanitation Inspector, Sanitary Officer | Labour contracts for construction of CT/PT |
| Operation and Maintenance (O&M) of CT/PT | <ul style="list-style-type: none"> Contracting of CT/PT O&M. Procurement of materials and assignment of staff for O&M | <ul style="list-style-type: none"> Assistant Commissioner supported by Sanitary Officer, Junior Engineer | Monitoring and inspection of toilets and containment systems to retrofit insanitary toilets as per TNCDBR, 2019 standards | Sanitation Inspector, Sanitary Officer | O&M of CT/PT by SHGs |

Strengthening Roles and Engaging the Private Sector for New Processes

| Sanitation Processes | Existing Activities | Existing Staff | Proposed Activities | Proposed Staff | Private Sector |
|--|---------------------|----------------|---|---|--|
| Construction of Fecal Sludge Treatment Plant (FSTP) | NA | NA | <ul style="list-style-type: none"> Review of designs and costs submitted Oversee and approve contracting of FSTP construction | <ul style="list-style-type: none"> City Engineer Commissioner/ Council | <ul style="list-style-type: none"> Quality assurance and O&M of treatment facilities. Reuse activities and market opportunities for treated products |
| Operation and Maintenance (O&M) of FSTP | NA | NA | <ul style="list-style-type: none"> Contracting of FSTP O&M Monitoring of FSTP O&M, co-composting and re-use | <ul style="list-style-type: none"> Commissioner/ City Engineer Executive Engineer | |

Recommendations and Implications

| | | Public Sector | Private Sector |
|-----------------------------------|---|--|---|
| Enhance existing processes | Inspections and monitoring activities added / strengthened to meet latest standards | <ul style="list-style-type: none"> • Institutionalise new FSM processes across the State | <ul style="list-style-type: none"> • Build capacity and enhance FSM knowledge to provide safe construction, and O&M services |
| Modify existing processes | Additional activities added or existing processes expanded / more clearly defined (e.g. provision of ULB-run desludging services to CT/PT facilities) | <ul style="list-style-type: none"> • Amend officers' roles and responsibilities • Implement monitoring systems and regulations | <ul style="list-style-type: none"> • Develop enterprises to respond to business opportunities in sanitation service delivery |
| Add new processes | New processes, particularly those related to FSM included | <ul style="list-style-type: none"> • Build capacity and train officers | <ul style="list-style-type: none"> • Align with FSM regulations |

Key Inferences

- Sanitation service models are context dependent
- Roles and responsibilities of various public and private sector actors would differ based on the models adopted at scale
- Systems and procedures associated with urban sanitation need to be understood in-depth in order to identify gaps and areas that require strengthening
- Key barriers to strengthening the institutional framework include:
 - Lack of resources – both personnel and financial – on the public sector side
 - Likely distrust in terms of the public – private interface



Link to Relevant resources:

1. TNUSSP, 2020. [Systems and Procedures for Urban Sanitation in Tamil Nadu](#)

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