SUPPORTING MUZHU SUGADHARA TAMIZHAGAM

The Government of Tamil Nadu (GoTN) has been a pioneer in the sanitation sector by not only recognising the importance of full sanitation coverage as core to improved standard of public health, but by also prioritising the full sanitation chain, including the strengthening of septage management as an economic and sustainable complement to network-based sewerage systems.

Urban population¹
30.2 Million

Total urban local bodies
664

Households having on-site systems¹
45%

Number of cities having STPs²
38

Number of existing FSTPs²
01

Sources: ‘Census 2011; ‘GoTN 2018
ABOUT TAMIL NADU URBAN SANITATION SUPPORT PROGRAMME

The Tamil Nadu Urban Sanitation Support Programme (TNUSSP) launched in the year 2015, aims at achieving improvements along the entire urban sanitation chain in the state of Tamil Nadu by demonstrating innovations in two model urban locations, as well as enabling state-wide scaling up. A Technical Support Unit (TSU) has been set up under the Municipal Administration and Water Supply (MAWS) department and the Government of Tamil Nadu with support from the Bill and Melinda Gates Foundation (BMGF).

--- Programme Timeline ---

- **2014**: Operative Guideline on Septage Management introduced by MAWS
- **2015**: TNUSPP launched
- **2015**: Pilot at Periyanaiicken-Palayam, Narasimhanaicken-Palayam and Trichy
- **PHASE I**: Nov 2015–Oct 2017
- **Scale-up & demand based support**
- **PHASE II**: Nov 2017–Mar 2020

A two-pronged approach was adopted:

- **Demonstration of innovations in two urban locations**
  - Trichy, a partially-sewered large city that needs Fecal Sludge Management (FSM) solutions as a complementary solution to become 100% sanitation secure.
  - Periyanaiicken-Palayam (PNP) and Narasimhanaicken-Palayam (NNP), a cluster of two small towns, that will use FSM as a stand-alone solution to demonstrate clustering of towns.
• Implementation of state-level policies and actions is being done to support rapid scaling-up of innovations in all urban areas of the state, through the creation of an enabling environment at the state level through policies, requirements and budgetary allocations.

POLICY, INSTITUTIONS AND FINANCING

The GoTN is the first Indian state to issue the Operative Guidelines for Septage Management. Seven focus areas are detailed out for the Urban Local Bodies (ULBs). These include:

1. Design and construction of septic tanks
2. Septic tank pumping and desludging
3. Septage transportation
4. Treatment and septage disposal
5. Fee/charges for collection, transportation and treatment
6. Information, Education and Communication
7. Record-keeping and reporting (Management

Tamil Nadu’s Operative Guidelines for Septage Management, 2014

Operative Guidelines for Septage Management for Local Bodies in Tamil Nadu

Operative Guidelines on Septage Management
Advisory Committee Meeting and State Working Group

TNUSSP has enabled the formation of an Advisory Committee comprising key government officers, active since the beginning of the programme. The Advisory Committee plays an important role in monitoring, reviewing and guiding the programme. The Committee is chaired by the Principal Secretary, MAWS Department. A total of 15 meetings have been conducted till date.

The Advisory Committee is supplemented by a State Working Group (SWG) which comprises of government officers who are operationalising Fecal Sludge Management (FSM). The SWG which meets once a month provides a forum for communication and coordination across various departments implementing FSM.

State Investment Plan (SIP)

The SIP was developed on two principles: utilisation of existing treatment facilities, and clustering. There are 41 STPs across 69 ULBs. The first and second phases focus on enabling co-treatment at these facilities.

Phase I & Phase II

Phase II Co-treatment at proposed STPs
Population coverage: 51,15,163
Cumulative: 60%

Phase I
Co-treatment at existing STPs
Population coverage: 103,48,467
Cumulative: 40%

Phase I, Phase II & Phase III

Phase III Treatment at new FSTPs
Population coverage: 38,90,113
Cumulative: 75%

Source: TNUSSP, 2018
A cluster approach has been adopted to ensure optimum utilisation of infrastructure. The ULBs have been clustered around existing or proposed treatment facilities within a radius of 10 km.

The SIP was developed to cover 664 ULBs in a phased manner. It estimated the investment required from the government for the construction of Fecal Sludge Treatment Plants (FSTPs).

There are minimal additional investments for treatment under Phase I and II. The three phases are on-going simultaneously.

Phase IV and V will cover remaining ULBs, through construction of new FSTPs in a phased manner.

Registration and Licensing

The Operative Guidelines require private desludging vehicles to be registered with the ULB.

Muzhu Sugadharam Application: Information Systems for Improved Urban Sanitation

The Muzhu Sugadharam (MuSu) Application is a state-wide initiative to collect relevant data on septage management at the ULB level. The MuSu App, based on the Operative Guidelines on Septage Management, seeks to assess the current status of the ULBs with respect to the different parts of the sanitation chain, and promises to help track progress over time as investments are made.
Fecal Sludge Treatment Plants

Tamil Nadu has one operational FSTP in Karunguzhi Town Panchayat, situated 82 km from Chennai. The FSTP is built on 1.5 acres of land and has a capacity of 23.40 kilo litre per day. The FSTP works on natural biological treatment system.
It has been mandated for co-treatment to be carried out in all STPs across the state, but implementation is uneven. The programme seeks to ensure co-treatment at all locations through the necessary infrastructural improvements.

Trichy has been practicing co-treatment of Fecal Sludge (FS) in STP. A few of the Sewage Pumping Stations (SPS) with pre-treatment facilities are converted into ‘decanting stations’ to receive FS. An assessment of the decanting stations and the STP was carried out to determine possible improvements to infrastructure, operations and maintenance, and health and safety of workers. Based on this assessment, the scaling-up of co-treatment in 38 other ULBs (with STPs) in Tamil Nadu is planned.
# ENGAGEMENTS & COLLABORATIONS

The following training programmes were conducted among various stakeholders:

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Number of people trained</th>
<th>Focus Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7 (Engineers)</td>
<td>Engineering and technology aspects for FSM</td>
</tr>
<tr>
<td>Exposure Visits</td>
<td>11 (International)</td>
<td>Understanding rules and regulations, choice of technology options, operationalising FSM. Visits to the Fecal Sludge Treatment Plant (FSTP) in Devanahali, Karnataka</td>
</tr>
<tr>
<td>Desludging operators</td>
<td>51</td>
<td>Orientation on Government of Tamil Nadu’s Operative Guidelines on Septage Management and Occupational Safety Standards (OSS)</td>
</tr>
<tr>
<td>Masons</td>
<td>126</td>
<td>Construction of proper septic tanks and twin pits</td>
</tr>
</tbody>
</table>

*Capacity Building*

*Training for masons*
A State Behaviour Change Communication Strategy was prepared to address behaviour change of multiple stakeholders across the sanitation chain.

**Behaviour Change Communication**

*Muzhu Sugadhara Tamizhagam - Story of the Logo*: In order to connect with popular images and to evoke the rich Tamil culture, a specific “kolam” was developed as the logo for the Muzhu Sugadhara Tamizhagam campaign. This is an abstract visual that symbolises the Full Cycle of Sanitation (FCS), with petals representing the different stages of the cycle.
Programmes and Events Across Three Cities

Global Handwashing Day at NNP, 2018

Knowledge Management and Communication
TOWARDS INCLUSION

A gender assessment is being carried out which will help in understanding intersectionality of gender with socio-economic status, caste and disability. In addition, it will also look into the resultant differential sanitation needs and its impact on women. A gender strategy will be subsequently prepared.

Occupational Safety

The occupational safety standards study aimed to understand occupational safety, health and hygiene issues faced by desludging workers and to comprehend how risk exposure can be minimised through protection, prevention and mitigation. A systems-thinking approach involving daily assessment of workers, field testing of Personal Protective Equipment and safety experts’ inputs helped chart hazard mitigation measures, protection by use of appropriate PPE, engineering control improvements and safety protocols.
PARTNERS

The Indian Institute for Human Settlements (IIHS) is a national education institution committed to the equitable, sustainable and efficient transformation of Indian settlements.

Keystone Foundation has been working in the Nilgiri Biosphere Reserve (NBR) since 1993 with indigenous communities on eco-development initiatives.

CDD Society is an NGO started in 2002 with an agenda to find solutions to the existing sanitation challenges in India.

Gramalaya is a water, health and sanitation NGO that has been operating in the rural areas and slums of Tiruchirappalli District since 1987.

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