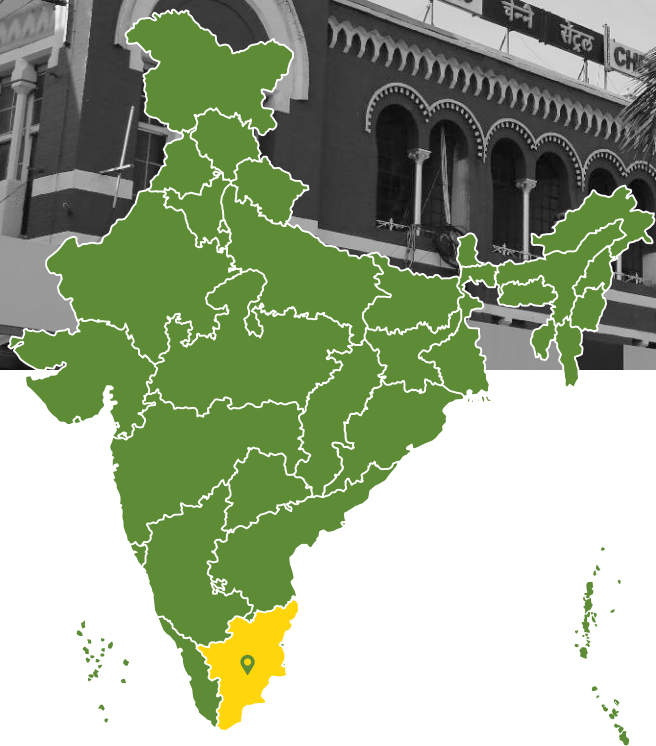




Tamil Nadu

India



India
State Map

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

38 Number of cities
having STPs²



Households having
on-site systems¹

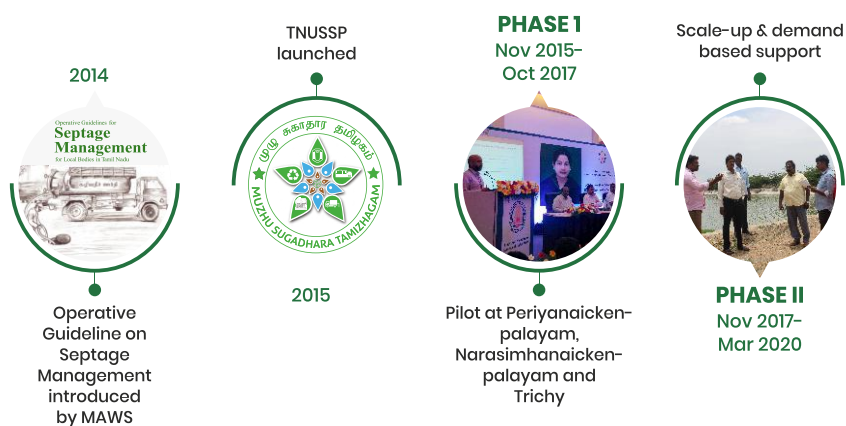
45%

01 Number of
existing FSTPs²

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 —



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.
 - Periyanaicken-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.

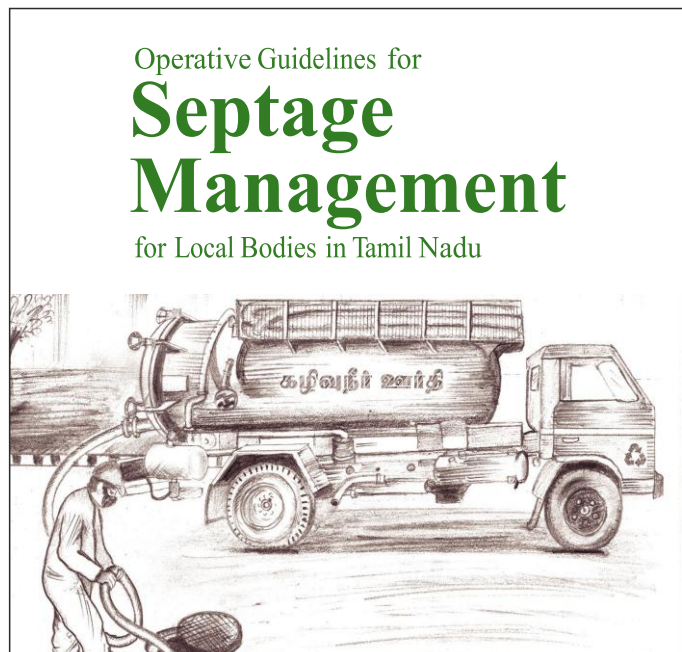
Tamil Nadu's Operative Guidelines for Septage Management, 2014

- 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



Operative Guidelines on Septage Management

Advisory Committee Meeting and State Working Group

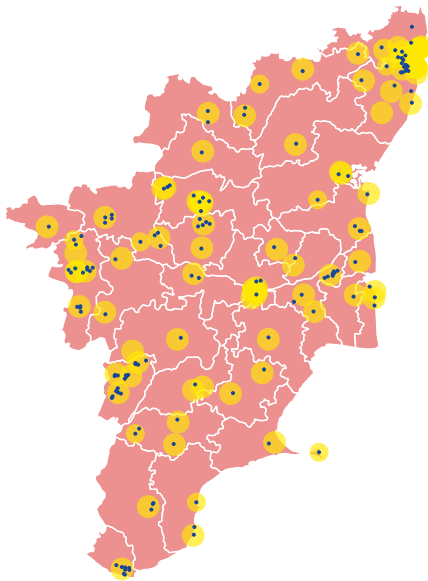
TNUSSP has enabled the formation of an Advisory Committee comprising key government officers, active since the beginning of the programme. The Advisory Committee plays an important role in monitoring, reviewing and guiding the programme. The Committee is chaired by the Principal Secretary, MAWS Department. 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 I
Co-treatment
at existing STPs

Population
coverage:
103,48,467

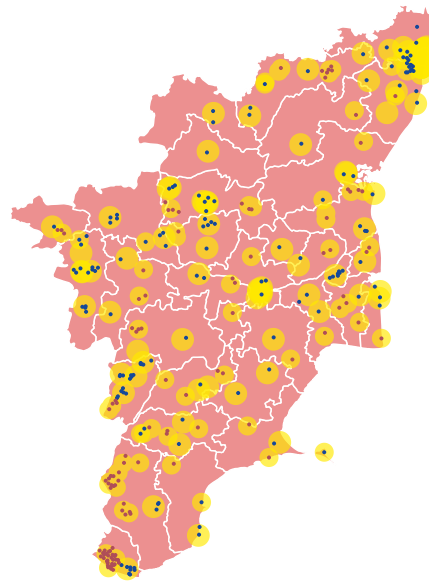
Cumulative:
40%

Phase II
Co-treatment
at proposed STPs

Population
coverage:
51,15,163

Cumulative:
60%

Phase I, Phase II & Phase III



Phase III
Treatment
at new FSTPs

Population
coverage:
36,90,113

Cumulative:
75%

- Phase I & Phase II STP
- Phase III FSTPs
- 10km distance area

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.

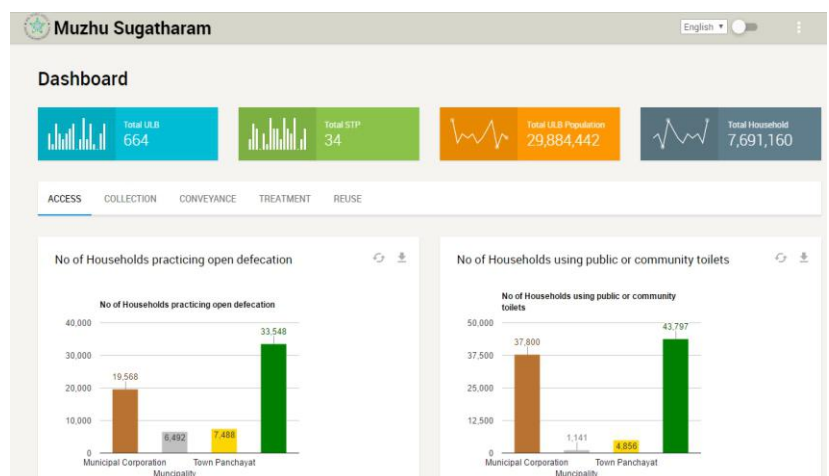
Phase IV and V will cover remaining ULBs, through construction of new FSTPs in a phased manner.

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.



A screen shot of the tool

STRENGTHENING INFRASTRUCTURE

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.



Sludge Drying Beds





Horizontal Planted Gravel Filter



Maturation Pond

Karunguzhi FSTP

Co-Treatment

ABSTRACT

Municipal Administration and Water Supply Department – In Principle approval for creation of 49 numbers of Faecal Sludge and Septage Management (FSSM) treatment facility to cover 51 Municipalities and 59 Town Panchayats – Orders – Issued.

MUNICIPAL ADMINISTRATION AND WATER SUPPLY (MA3) DEPARTMENT

G.O.(Ms) No. 88 Dated : 31.08.2018
திருவள்ளூர் ஆண்டு 2049
விளம்பி, ஆவணி 15

Read:

1. G.O. (Ms.) No.106, Municipal Administration and Water Supply (MA3) Department, dated 01.09.2014.
2. From the Commissioner of Municipal Administration Letter No.47718/UGSS-2 dated 4.07.2018.

ORDER:

The Honourable Chief Minister has made an Announcement under rule 110 regarding creation of 49 numbers of Faecal Sludge and Septage Management treatment facility to cover 51 Municipalities and 59 Town Panchayats on 12.6.2018 as follows:-

GoTN order on construction of 49 FSTPs

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 Faecal 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.



Decanting station at Anna Stadium

ENGAGEMENTS & COLLABORATIONS

The following training programmes were conducted among various stakeholders:

Capacity Building

Stakeholders	Number of people trained	Focus Areas
Government Officers	55 (Administrative)	Septage management operative guidelines, overview of FSM and international best practices.
	7 (Engineers)	Engineering and technology aspects for FSM
Exposure Visits	11 (International)	Understanding rules and regulations, choice of technology options, operationalising FSM.
	37 (Domestic)	Visits to the Fecal Sludge Treatment Plant (FSTP) in Devanahalli, Karnataka
Desludging operators	51	Orientation on Government of Tamil Nadu's Operative Guidelines on Septage Management and Occupational Safety Standards (OSS)
Masons	126	Construction of proper septic tanks and twin pits



Training for masons



Visit to FSTP in Devanahalli, Karnataka



2 day orientation- cum-training programme on FSM

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



Film on "Do's & Don'ts" for Construction of Septic Tank



Film on the Full Cycle of Sanitation

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



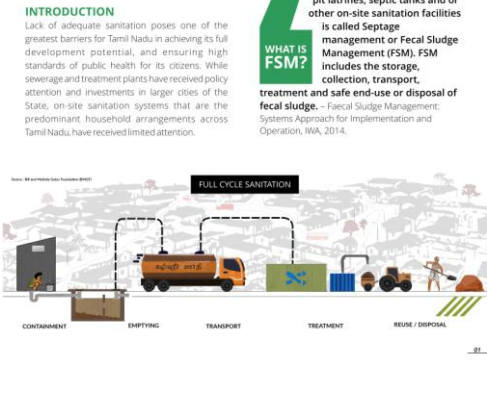
World Toilet Day 2017



Global Handwashing Day at NNP, 2018

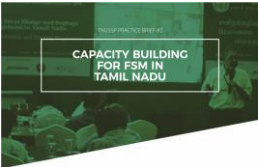


Knowledge Management and Communication



The range for progress in public health and social development in Tamil Nadu is immense. The Government has been quick to take the responsibility of addressing on-site sanitation, ensuring the full cycle of sanitation as an integrated intervention, including the final sludge management in treatment plants. The Tamil Nadu Urban Sanitation Support Programme (TNUSSP) is a part of a broader vision of the Tamil Nadu Government - 'Modular Sanitation' - which focuses on the management and sanitation services management.

Currently, a range of behaviour change and social marketing interventions are being implemented across the state, targeting the full cycle of sanitation. These include campaigns, community meetings, door-to-door visits, and other interventions. These interventions are aimed at changing the social norms and attitudes related to sanitation, and promoting the use of improved sanitation facilities.



INTRODUCTION

Capacity building for FSM is a process of enabling individuals, organizations, and communities to improve their performance in FSM. This process involves a range of activities, including training, mentoring, and technical support. The goal of capacity building is to ensure that individuals and organizations have the knowledge, skills, and resources to effectively manage FSM.

The Tamil Nadu Urban Sanitation Support Programme (TNUSSP) is a part of a broader vision of the Tamil Nadu Government - 'Modular Sanitation' - which focuses on the management and sanitation services management.

Media Articles

WORLD

TOILET DAY

City lags in sanitation as aim to build public toilets fails to take off

K.V. NAVYA | DC
CHENNAI, NOV. 18

Each year, "sanitation" is spoken about on one day. Just as the topic fades away for the rest of the year, so do plans to improve it. This year's theme for World Toilet Day observed on November 18 is "Faecal sludge management and wastewater". Coldest ally this year Chennai was ranked at 20th position among the cleanest cities in India in Swachh Suraksham Surveys with solid waste management and sanitation being its prime problems.

Installing bio-toilets for better sanitation in the city have turned futile due to poor maintenance. The number of bio-toilets is not sufficient to provide for the public utility of such large population of the city, residents feel.

An allocation of ₹2,000 crore was made for infrastructure development in the city out of which, nearly ₹60 crore was utilised to build bio-toilets at 300 locations across the city.

Stations Toilet, Serapant and Workhand under took the contract for building them.

E-toilets, bio-toilets, and mobile toilets were installed at around 300 locations across the metropolis to improve the sanitation standards, but as many of them turned non-functional, residents say that maintenance has become a tough task for the civic body.

With numerous community and pre-fabricated toilets, built across the state, Tamil Nadu still remains devoid of proper sanitation. The Tamil Nadu Sanitation Support Programme (TNSUSP) led by Indian Institute of Human

Settlements (IHS) conducted a survey on these issues recently and found that many times, septic tanks are not constructed properly.

Senior specialist, IHS, Anna, says most of the masons do not have proper knowledge of building septic tanks, as there is no formal training.

They join as masons at a young age and learn things through observation. So, most masons idea of a septic tank is to build a pit in the ground," she said.

TNSUSP had conducted statewide mason training programme for improving the state of the toilets.

Anna added that timely waste sanitation doesn't just hurt children, women and girls, but also affects the society at large by causing diseases, polluting water and land, and contributing to productivity losses.

According to her, it has caused India considerable economic losses, equivalent to 4.4 percent of India's GDP or ₹2.4 lakh crore, in the year 2006.

PLANS OF TNSUSP FOR 2017-18

- Intensive awareness campaigns in the cities and other parts through social media.
- Get the private sector involved in the construction of faecal sludge treatment plants.
- Talking to state government to see an increase in treatment facilities.
- Regulating desludging operators and preventing them from open dumping.
- Continue mason training programs across the state.

—Kavita Wankhade, team leader, TNSUSP

WHAT IS FAECAL SLUDGE?

Faecal sludge comprises liquid and semi-liquid contents of the pits and vaults accumulating in on-site sanitation installations, namely unsewered public and private latrines and septic tanks. These liquids are normally several times more concentrated in suspended and dissolved solids than wastewater.

WHAT IS FAECAL SLUDGE MANAGEMENT?

FS management deals with on-site sanitation systems, while wastewater management is concerned with sewerage treatment works or co-treated with sludges produced in wastewater treatment plants.

Developing a Gender Strategy

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.



IIHS CHENNAI: Floor 7A, Chaitanya Exotica, 24/51, Venkatnarayana Road,
T.Nagar, Chennai-600017. Phone: 044-6555 6590; Email: tnussp@iihs.ac.in