Inclusive Urban Sanitation Stories

Making community and public toilets safe and hygienic

Contributed by **Donata Mary Rodrigues, Swapnil S Barai, and Sasikumar Eswaramurthy,**
Tamil Nadu Urban Sanitation Support Programme

Figure 1 – Source: IIHS.

Summary

Community and Public Toilets (CT/PTs) play an essential role in the provision of safe sanitation services. The urban poor and commuters in transit are largely dependent on CT/PTs. Though a basic necessity, most CT/PTs across cities and towns in India are poorly maintained. Instances of users misusing the toilets for other activities continues to be a concern. Improper user behaviour is the primary reason for the poor condition of these facilities.

Creating a strong Operation and Maintenance (O&M) model is key to improving this situation. With the aim of helping the Greater Chennai Corporation (GCC) to identify effective O&M

models, the Indian Institute for Human Settlements (IIHS)-led Tamil Nadu Urban Sanitation Support Programme (TNUSSP) is conducting a pilot study at CT/PTs across 11 locations.

The pilot study also explores how CT/PTs can become further accessible and gender inclusive. TNUSSP has designed Behavioural Change Communication campaigns to address CTPT users' behaviours. In the six months since the pilot programme's introduction, there has been an increase in users across toilets. Presently, three O&M management models are being piloted: private, self-help group and individual entrepreneurs.
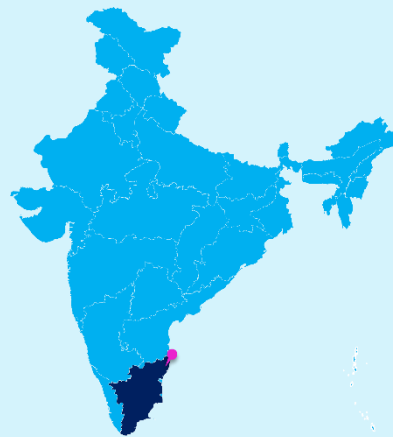
Overview

Geographical information

Country: India
City: Chennai, Tamil Nadu
City population: 10,000,000

Problem

- Poorly maintained and unhygienic public and community toilet facilities in urban India.
- Weak Operation and Maintenance (O&M) models for maintaining the public and community toilets.

Solution

- A robust service model that is effective, cost-efficient and self-sustaining to ensure the availability of safe and hygienic sanitation facilities for the users.

Problem

Community and Public Toilets (CT/PTs) play an essential role in the provision of safe sanitation services. The users dependent on them comprise urban poor communities, occasional users and users in transit. Toilets are a basic necessity, but more often than not, poor public and community toilet services discourage people from using them. An unhygienic toilet is also a

breeding ground for diseases and is an indication of the inadequacies of urban sanitation services in India. An efficient community and public toilet management are especially crucial for cities with large populations.

A city like Chennai has 800+ public convenience facilities, directly or indirectly managed by the Greater Chennai Corporation (GCC). The Government of Tamil Nadu (GoTN) would like to provide safe and hygienic public conveniences to all citizens free of cost. Although there is an increasing demand for improved service provision, GoTN and Urban Local Bodies face two key challenges in managing CT/PTs – increasing service coverage while at the same time improving services and sustenance of operations, including financing operations.

Solution

Tamil Nadu Urban Sanitation Support Programme (TNUSSP) has been working with the GCC on demonstrating service models for O&M of CT/PTs. In January 2022, a study was conducted in 64 community toilets in zones 5,6,7,9,13 and 14 of the city to understand the current infrastructural status of conveniences along with their O&M models. Based on the findings, 11 facilities were shortlisted for intervention in zones 13 and 14. The facilities were selected based on the location of toilets (main road, inner roads, within a community), types of users, footfall pattern and arrangements for waste disposal. As refurbishment is the key to improved service provision, TNUSSP shared the standards for an inclusive CT/PT with GCC and based on this, the toilets were refurbished for lighting, ventilation, accessibility for senior citizens and differently abled citizens, installation of sanitary napkin vending machines, feedback instruments, CCTV cameras, mirrors, soap trays and towel rods in all toilet complexes. Figure 2 and 3 shows the toilets before-and-after refurbishment.

Figure 2 – Toilet facility at Thiruvanmayur, Chennai before refurbishment. Source: IIHS.
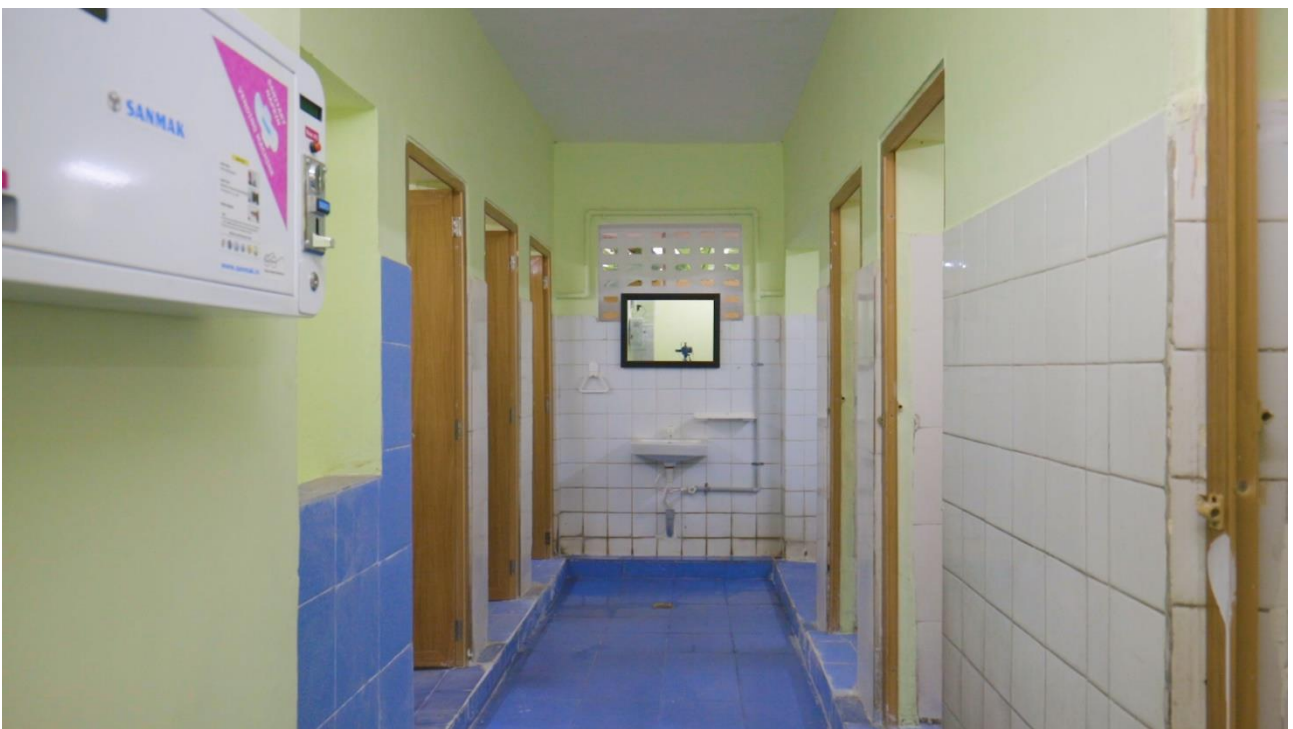

Figure 3 – Refurbished toilet facility at Thiruvanmayur, Chennai. Source: IIHS.

In June 2022, TNUSSP piloted three types of O&M models which differ by the type of service provider, while paving the way for revenue potentials at these facilities, which do not charge any user fee:

i.   private enterprise (established facility management company).

ii.   women self-help groups (SHGs)/community-based organisations (CBOs).

iii.   individual entrepreneur/or family.

The allocation of toilet facilities to the service providers was determined by parameters such as visibility, advertisement potential, community users, footfall, and underground sewerage scheme /on-site sanitation system connection. The facility management company was selected by evaluation of technical and financial bids. This move aims to identify effective and efficient O&M models for the CT/PTs in the GCC area to ensure the availability of safe and hygienic sanitation facilities for the users.

The demonstration ensures compliance with all applicable laws and maintains the hygiene standards at the designated facility to improve its usage by the community and public. The scope of the demonstration (Figure 4) covers the identification of service delivery models and the assessment of these models by implementing and monitoring them in eleven CT/PTs in a time span of two years. In addition, the demonstration also covers the implementation of innovative on-site sanitation systems.

Management methods	Understanding users and other stakeholder	Waste and used water management	Revenue generation potential
• Arrangements for service provision • O&M practices, costs, service levels, monitoring	• Users, service providers: requirements, patterns, behaviours • Engagement purpose and methods	• Improved on-site and off-site management of waste • On-site reuse	• Options for revenue generation to offset cost of O&M

Figure 4 – Scope of demonstration.

Regular training of staff on maintenance of the toilets and behaviour change communication to the users on the proper use of toilets are a part of the venture, along with ensuring adequate water availability and infrastructural upkeep at these facilities for the safety and security of its users.

Five of the toilets taken up for demonstration are dependent on on-site sanitation. As the usage of toilets has increased, the frequency of desludging has also increased. Therefore, one PT (Kottivakkam) and one CT (Anna Nedunsalai) have been selected for piloting the multi-unit reinvented toilet (MURT) technology. The MURT is a transformative technology that will destroy all pathogens on-site, recover valuable resources and operate without sewer connections. It is proposed to use the treated water for flushing, cleaning and gardening purposes. The staffing at the toilet undertaken by different service providers is as per the guidelines of the Central Public Health & Environmental Engineering Organisation (CPHEEO). The TNUSSP team conducts overall supervision. Standard reporting formats have been developed for monitoring user count,

inventory, expenses, repair and maintenance, de-sludging and grievance resolution. Flow meters have been installed to monitor water consumption. Service providers adhere to the service level agreements measured through a list of indicators using KoboCollect (an open-source Android app for collecting survey data).

Lessons learned

The key lessons from this intervention are:

- The inception period witnessed frequent issues related to repair and maintenance, de-sludging and minor vandalism incidents, the resolution of which has now been streamlined.
- The number of users significantly increased against the baseline. The number of female users has increased by 43% since the launch of O&M services.
- About 94% of users rated the toilets as clean after the commencement of operations
- User education and community engagement are an integral part of the project and are gaining momentum among the service providers as it is vital in improving proper usage of the facilities.

Further reading and references

- GCC pilots three maintenance models for public toilets in Chennai, https://www.thehindu.com/news/national/tamil-nadu/gcc-pilots-3-maintenance-models-for-public-toilets-in-chennai/article66145593.ece

About the author

Donata Mary Rodrigues is a Senior Consultant – Practice at IIHS. She has worked on projects empowering the marginalized sections of society for over two decades. Donata works in the gender and social inclusion team at TNUSSP. She also manages the demonstration of service provision models in public and community toilets in Chennai.

Swapnil S Barai is a qualified social development sector professional with over 15 years of experience in multiple domains and has worked in areas such as development project management, research, monitoring & evaluation, social enterprise development, resettlement and rehabilitation, community health, livelihoods, agriculture, philanthropy and fundraising. He has a bachelor's degree in social work from the Tata Institute of Social Sciences (TISS) and is currently pursuing a PhD in economics.

Sasikumar Eswaramurthy is a Senior Consultant – Practice at IIHS. He has more than 10 years of work experience in the water–sanitation sector and has been working as a specialist in the engineering, planning and implementation support component for the TNUSSP Project. He has been involved in the review of detailed project reports for the Faecal Sludge Treatment Plant in Trichy City Corporation and Periyanaickenpalayam in Coimbatore, and its construction, execution and implementation. Other areas of focus include the study of stormwater drain pollution and the assessment of sewage and fecal sludge treatment.

About the institution / organisation

Since 2016, the **Tamil Nadu Urban Sanitation Support Programme**, a consortium led by **the Indian Institute for Human Settlements,** has been proactively supporting the Government of Tamil Nadu in making improvements along the entire urban sanitation chain in cities. We work towards strengthening septage management as an economical and sustainable complement to network-based sewerage systems and aim to scale Faecal Sludge Management across 649 towns in the state, covering a total urban population of 30 million.

https://tnussp.co.in/

https://iihs.co.in/

About the IWA Inclusive Urban Sanitation Initiative

IWA's Inclusive Urban Sanitation initiative responds to a huge and growing public need - safe sanitation in combination with access to safe drinking water and hygiene underpins good health. The aim of this initiative is reshaping the global urban sanitation agenda by focusing on inclusive sanitation service goals--and the service systems required to achieve them - rather than the traditional singular focus on expanding sewer networks and treatment works. This forms part of IWA's larger agenda to promote inclusive, resilient, water-wise, and sanitation-secure cities.

About the Inclusive Urban Sanitation Stories

The Inclusive Urban Sanitation stories are documenting some of the policies, practices, and approaches that demonstrate how stakeholders especially those in urban areas (e.g., public sector, operators, academics, regulators, and other key actors) are taking part or contributing to Sustainable Development Goal 6 which require water and sanitation concepts and norms to look beyond technology and the usual focus on building infrastructure. Increased focus is on safety, inclusion, environment, public health, and multiple technology solutions tailored to different geographies and socio-economic contexts for building climate-resilient cities. The stories aim to inspire urban stakeholders to discuss ways for advancing inclusive urban sanitation, especially in low- and middle-income countries.

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