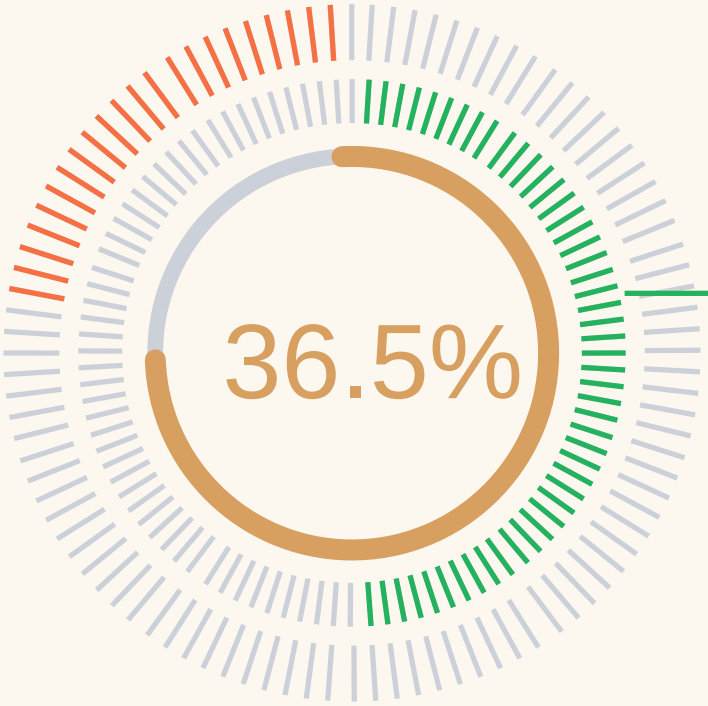
FSM Faecal Sludge Management TOOLBOX

City Assessment Report

Trichy



23%
Infrastructure Assessment score

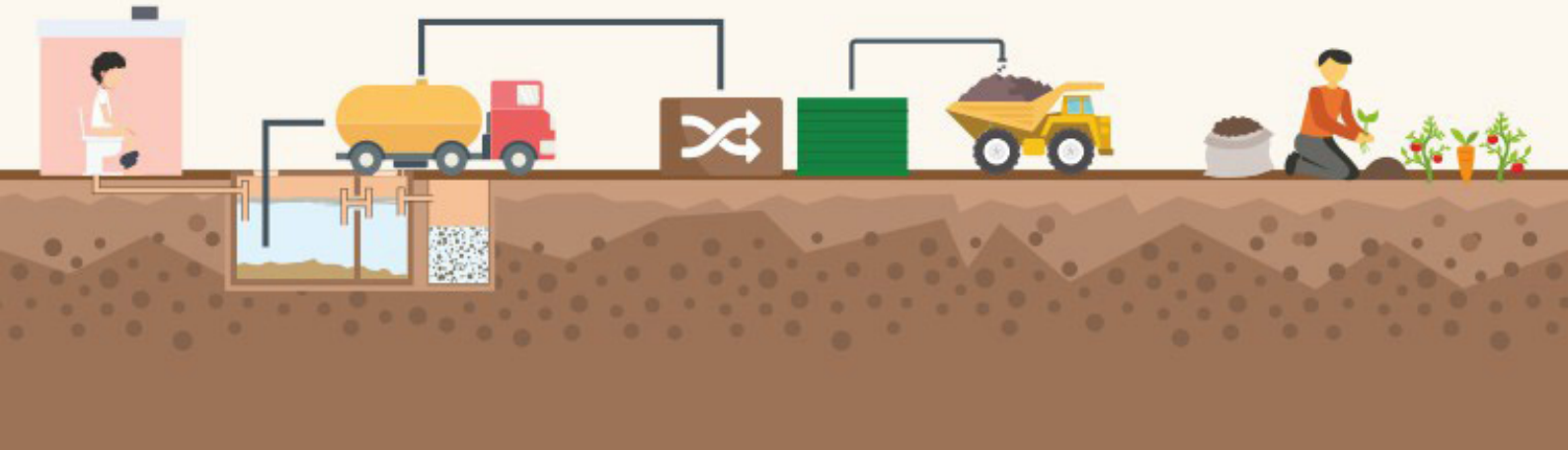
50%
Enabler Ecosystem Assessment Score

The FSM Index score indicates that the Overall FSM performance of the city is

Developing

Scale: Poor 0-33% | Developing 33-66% | Good 67-100%.

The FSM infrastructure of the city requires improvement with a focus on - containment systems, desludging and transportation services in the city. The enabler ecosystem assessment score indicates need for improvement in aspects of - defining service targets, public finance commitments, quality of FSM services, demand generation, programmes for sector development and overall quantity of FS safely managed across the value chain.



City Assessment Report: Trichy

04 April 2019

Produced By: Pavish, Qa, Trichy, Tamil Nadu, India.

www.fsmtoolbox.com

CONTENTS

Overall Assessment Output

Enabler Ecosystem Assessment

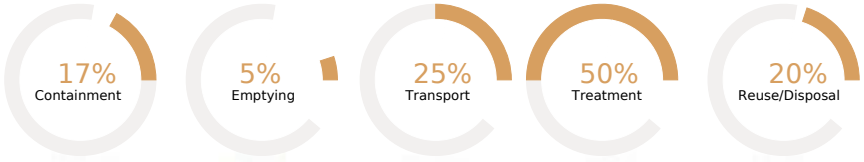
City Typology	ENABLING	DEVELOPING	SUSTAINING
	0.5	0.5	0.5

ENABLING					
Policy	2	2.5	1.5	2	0
Planning	3	1	1.5	1	1.5
Budget	1.5	3	0	0	3

DEVELOPING					
Expenditure	3	1.5	1.5	3	1.5
Equity	1.5	3	1.5	0	1.5
Output	3	1	1.5	2.5	0

SUSTAINING					
Operation & Maintenance	0	1.5	2.5	1.5	0
Expansion	1	2.5	3	0	1
Service	2.5	2.5	2.5	1	2.5

Infrastructure Assessment



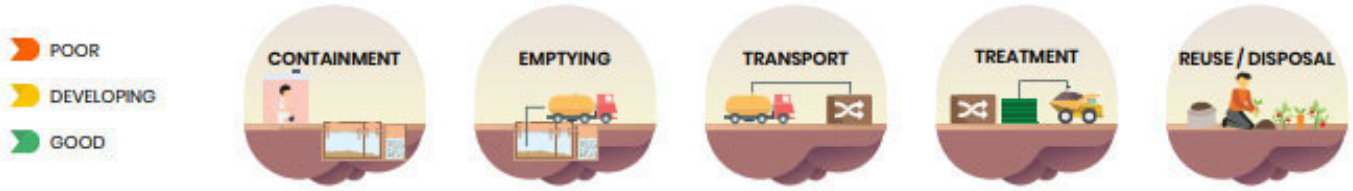
Enabler Ecosystem Assessment

50%
Enabler Ecosystem Assessment Score

City Typology

ENABLING

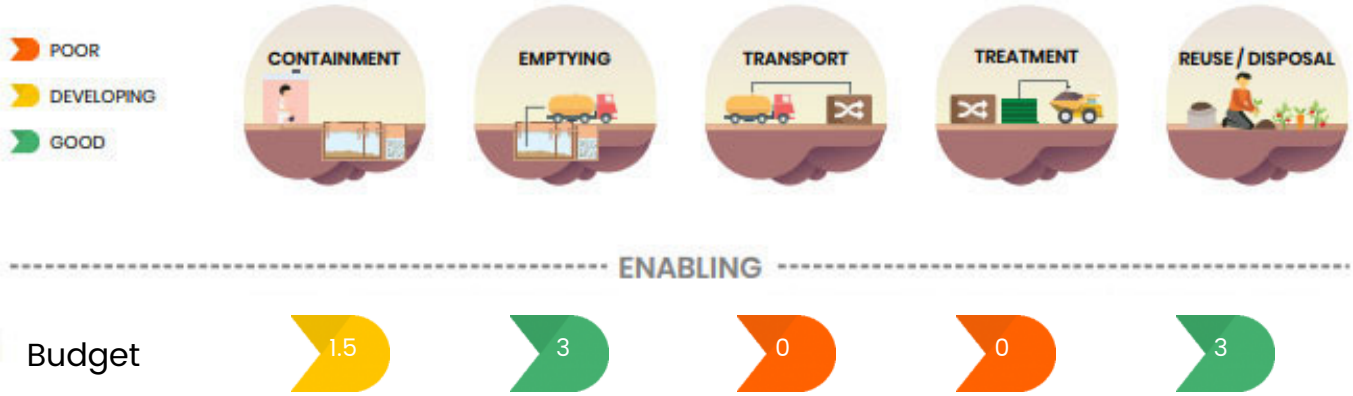
- Great to learn that the city has an appropriate and approved policy document acknowledged by all the stakeholders in the city (Containment|Emptying)
- Good that you have taken the first step towards development of the policy document. Present the draft policy document among the core stakeholder, solicit feedback from the core group, refine and publish the policy document widely. (Transport|Treatment)
- Currently there is no policy document for FSM operation in your city. Creation of a policy document is an important step towards establishing safe FSM operating model in the city. (Reuse/Disposal)
- Identifying the key stakeholders and demarcating roles and responsibilities among the group will enhance FSM service delivery across the city (Containment|Reuse/Disposal)
- Encourage / enforce the stakeholders to operationalize defined institutional roles (Emptying|Transport)
- Great to learn that the city has clearly defined and operationalized institutional roles (Treatment)
- Great to learn that the city has established and enforced legal and regulatory mechanisms in the city (Containment|Emptying)
- Though legal and regulatory mechanisms exist in your city, it is important to operationalize them effectively. Educate and encourage the ground officers about the pros of effectively operationalizing legal and regulatory systems in the city. (Transport|Treatment)
- Legal and regulatory mechanisms are the backbone for successful FSM implementation in cities. It is recommended that your city should take efforts to establish appropriate legal and



ENABLING

Planning	3	1	1.5	1	1.5

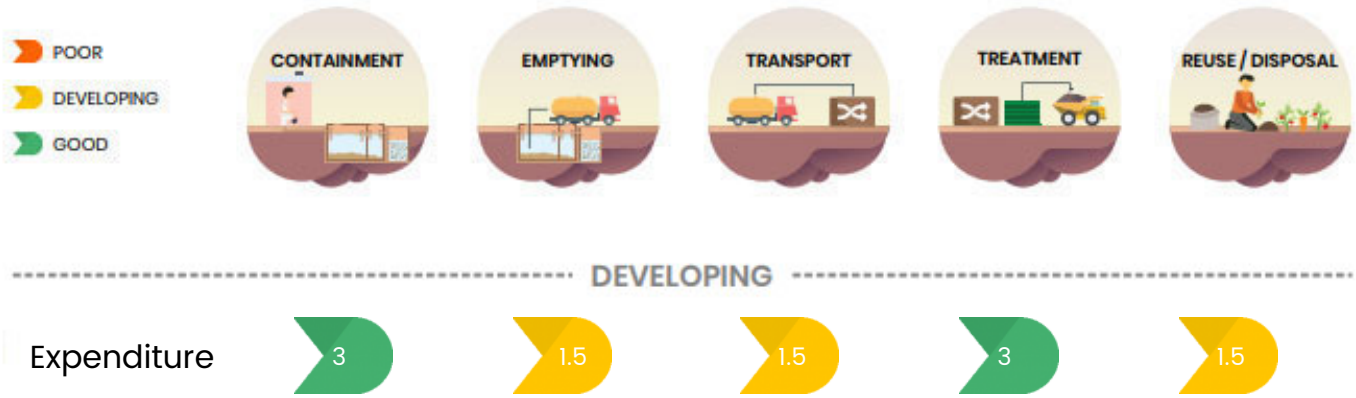
- Great to learn that the city has defined service targets as part of the FSM service chain in the development plan that is adopted at the city level (Containment)
- No service targets are defined at the city level. Please engage with the relevant stakeholders and define service targets in a collaborative fashion. (Emptying|Transport|Treatment|Reuse/Disposal)
- Great to learn that the city has FSM incorporated into an approved investment plan that covers all aspects of project lifecycle including HR investment plan, TA, capacity building, etc. (Containment|Reuse/Disposal)
- Cities must have a dedicated development and investment plan for improvement of FSM situation in the city. It is recommended to engage with relevant financial experts to develop investment plan inline with the overall city FSM development plan of the city (Emptying)
- Though FSM investment plan exists, it is important to comprehensively cover all aspects of FSM implementation such as HR needs, TA needs, etc. (Transport|Treatment)



- The city must strengthen the process for coordinating investments from domestic and international donors, national grants, state budgets, donor loans, grants and others **(Containment)**

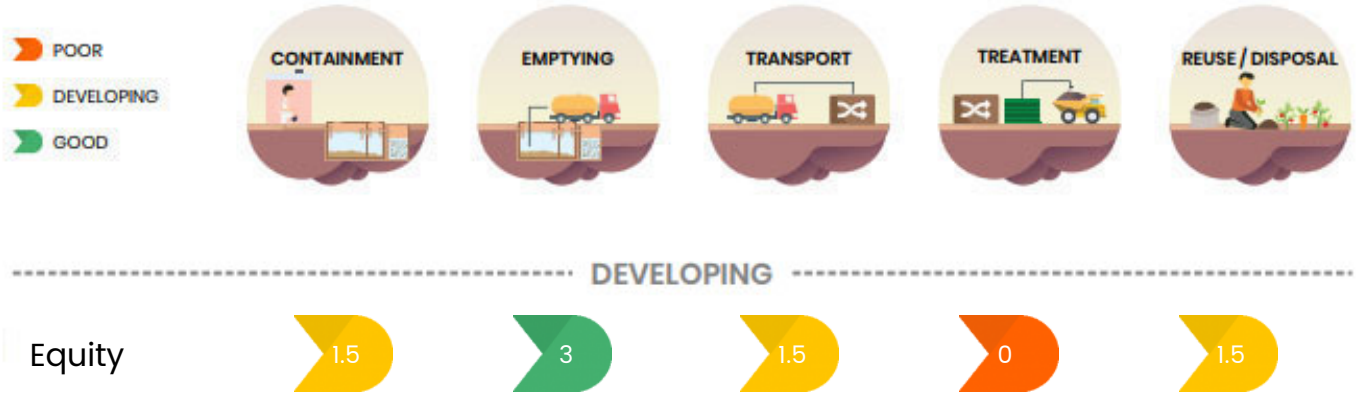
- Great to learn that the city has a defined process for coordinating FSM investments **(Emptying|Reuse/Disposal)**

- The city must establish a process for coordinating investments from domestic and international donors, national grants, state budgets, donor loans, grants and others **(Transport|Treatment)**

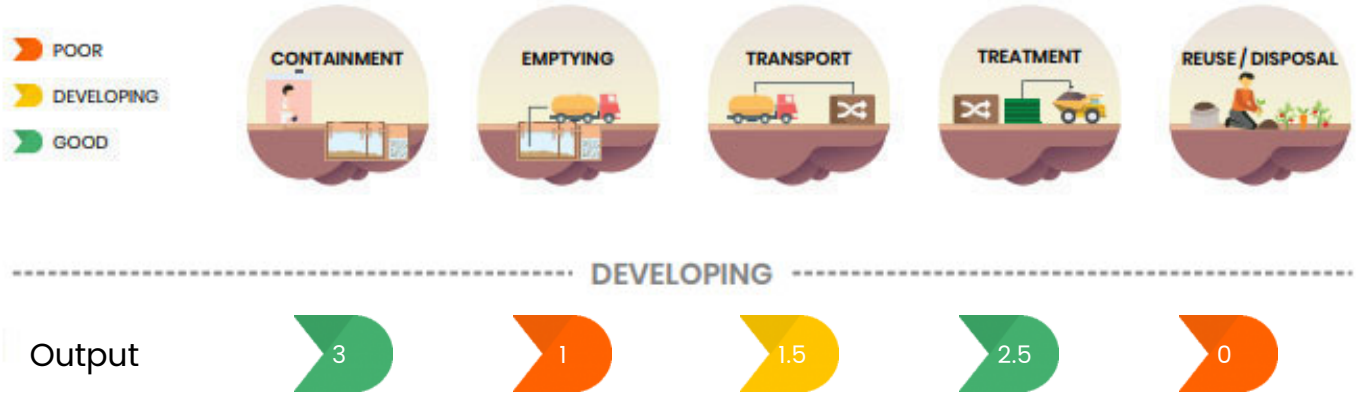


- The annual public financial commitments for fsm is quite healthy to meet the service levels and needs for the city. The existing financial commitment meets over 75% of overall FSM requirement for the city. It is advised that the city attempts to mobilize gap funds from domestic and international donors, national grants, state budgets, donor loans, grants or engage the private sector through PPP mode. **(Containment|Treatment)**

- The annual public financial commitments for fsm is insufficient to meet the service levels and needs for the city. The existing financial commitment meets just over 50% of overall FSM requirement for the city. It is advised that the city attempts to mobilize funds from domestic and international donors, national grants, state budgets, donor loans, grants and others. **(Emptying|Transport|Reuse/Disposal)**



- Great to learn that the city has sufficient technology options, especially to meet the needs of the urban poor (Containment|Emptying|Reuse/Disposal)
- The technology options are not sufficiently available in the city. The city needs to encourage private sector to research / develop / make available technologies that meets the needs of the urban poor (Transport)
- The technology options are insufficient in the city. The city needs to engage with private sector extensively to encourage mobilization of affordable, appropriate, safe and adoptable technologies for FSM services in the city (Treatment)
- The city must take adequate efforts to reduce inequalities by ensuring adequate funds, plans and measures are in place to serve FSM for all users in the city (Containment|Treatment|Reuse/Disposal)
- Great to learn that the city has adequate funds, plans and measures to reduce inequaties by serving FSM to all users, specifically to the urban poor (Emptying)
- Though there are adequate funds arranged according to the plan, measures must be taken to actually implement and reduce inequalities in the city, specifically for the urban poor (Transport)



- Great to learn that the the capacity of the FSM players / infrastructure in CityName is growing at a good pace (over 75% growth) to meet the needs, demands and targets to protect the overall public and environmental health. The city can further encourage players to build capacities / mobilize investments / seek VGF / encourage PPP to improve the overally quality of FSM service delivery in the city. (Containment)

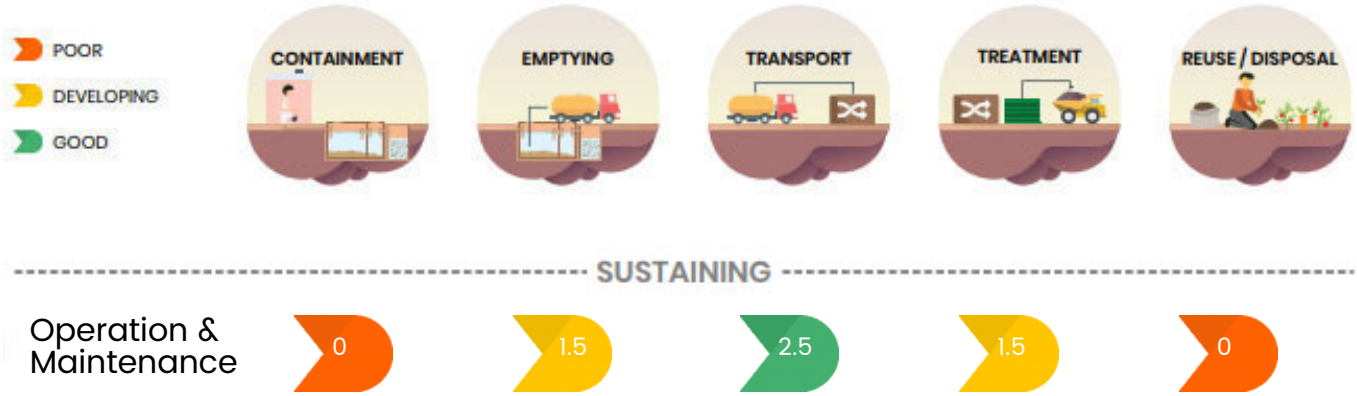
- The capacity of the FSM players / infrastructure is not growing at the pace required (Less than 50% growth) to meet the needs, demands and targets to protect the overall public and environmental health. The city must encourage players to build capacities / mobilize investments / seek VGF / encourage PPP to improve the overally quality of FSM service delivery in the city. (Emptying|Reuse/Disposal)

- The capacity of the FSM players / infrastructure is partially growing at a decent pace (just over 50% growth) to meet the needs, demands and targets to protect the overall public and environmental health. The city must further encourage players to build capacities / mobilize investments / seek VGF / encourage PPP to improve the overally quality of FSM service delivery in the city. (Transport|Treatment)

- Great to learn that the quality of FSM is quite sufficient, just greater than 75% of services are adequate to meet the public health standards. Cities must revisit their service delivery value chain to improve the overall quality of services. (Containment|Treatment)

- The quality of FSM is insufficient, just greater than 50% of services are adequate to meet the public health standards. It is recommended to engage with sanitation experts to improve the overall quality of service delivery. (Emptying|Transport)

- The quality of FSM is insufficient, less than 50% of services are adequate to meet the public health standards. It is recommended to engage with sanitation experts to improve the overall quality of service delivery. (Reuse/Disposal)



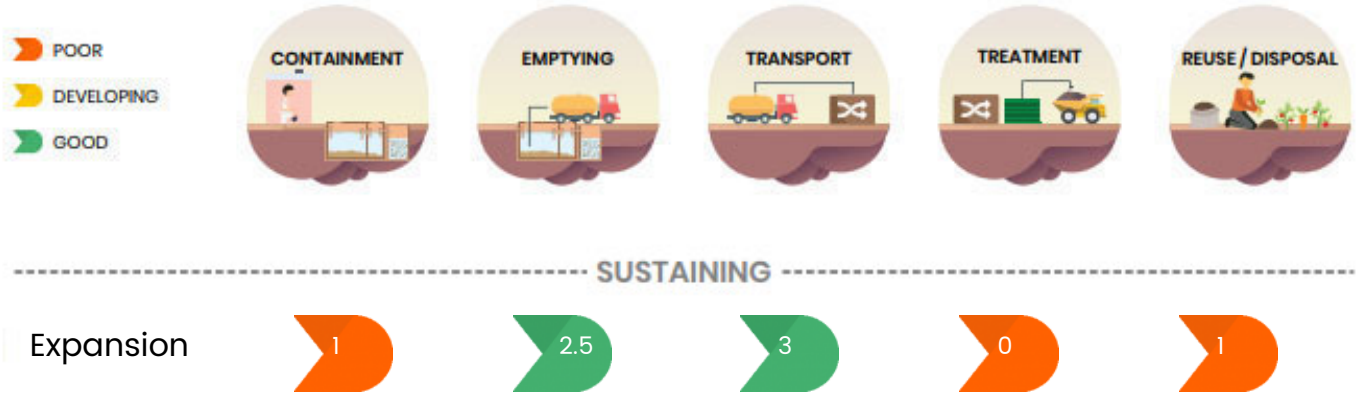
- Less than 50% of the city's overall operations and maintenance cost is met through user fees and/or local revenue or transfers. It is highly recommended that the city should revisit its cost to deliver services and revise its cost to the consumer such that 100% of the operational cost is covered through either user fees / local revenues. (Containment|Reuse/Disposal)

- Great to learn that over 75% of the city's overall operations and maintenance cost is met through user fees and/or local revenue or transfers. It is highly recommended that the city should revisit its cost to deliver services and revise its cost to the consumer such that 100% of the operational cost is covered through either user fees / local revenues. (Emptying|Transport)

- Just over 50% of the city's overall operations and maintenance cost is met through user fees and/or local revenue or transfers. It is highly recommended that the city should revisit its cost to deliver services and revise its cost to the consumer such that 100% of the operational cost is covered through either user fees / local revenues. (Treatment)

- Though norms and standards exist for systematic collection of the user fees, the collection efficiency is not being monitored at the city level. It is highly encouraged that the city should set collection targets for each year, monitor the overall collection progress and incentivize fees collectors for achieving individual service targets. (Containment|Emptying|Reuse/Disposal)

- Though the city is monitoring the overall user fees collection progress, the city is not adequately levying penalities for users who are unwilling to comply to set standards. It is highly encouraged that the city should set individual collection targets for each year, encourage the tax collectors to levy penalities for users unwilling to comply to standards and incentivize the fees collectors for achieving individual service targets. (Transport|Treatment)



- The city should take adequate efforts to increase the overall FSM demand by creation of policies, procedures and plan programs to stimulate demand of FSM services, behavior of households and responses by service providers (Containment|Treatment|Reuse/Disposal)

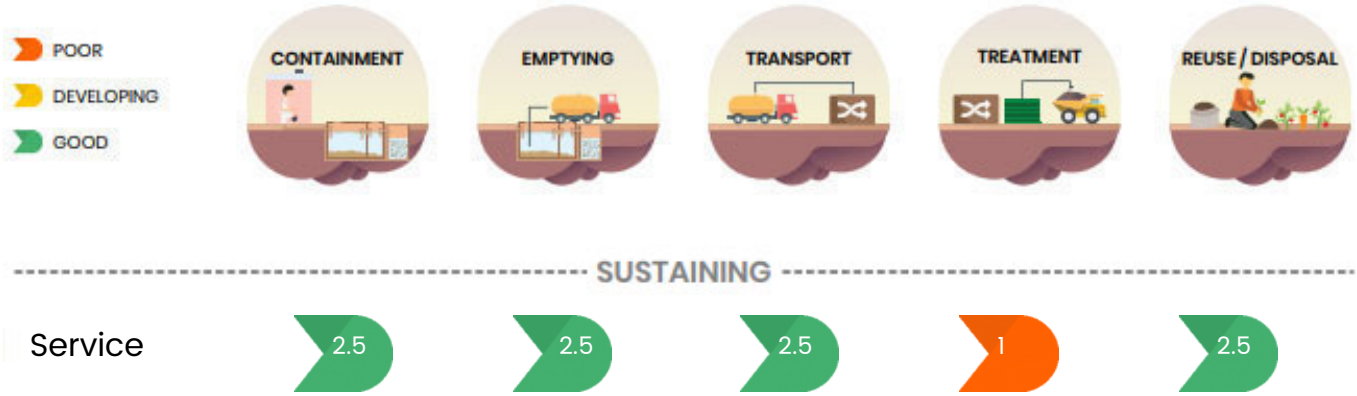
- Though city has taken effort to increase the overall FSM demand, it is learnt that the demand has not increased quite significantly. The city should build capacities of the service providers and develop targetted IEC strategies for improving the overall demand for FSM services in the city (Emptying)

- Great to learn that the city taken adequate effort to increase the overall demand for FSM services and this has resulted to a constant growth in demand. (Transport)

- Though programs and measures to strengthen the quality of service providers exist, little has been changed over years. Majority of the service providers remain disorganized and the sector is not expanding as per the development plans prepared by the city government. (Containment|Reuse/Disposal)

- Great to learn that the programs and measures to strengthen overall quality of service providers has been successfully implemented in the city. The entire value chain has been streamlined, the sector is highly organized and is constantly expanding over years. (Emptying|Transport)

- The city should focus on overall sector development by establishing programs to strengthen the quality of service providers, structure in their day to day operations and develop a roadmap for comprehensive growth / expansion over years (Treatment)



- Over 75% of FS generated in the city is safely managed at the containment stage. The city should encourage households to improve the overall quality of containment systems in the city to meet environmental safety standards. **(Containment)**

- Over 75% of FS generated in the city is safely managed at the emptying stage. The city should enforce the desludging operators to adhere to global safety standards and educate them about personal health and hygiene. **(Emptying)**

- Just over 50% of FS generated in the city is safely managed at the conveyance stage. The city should enforce the desludging operators to strictly adhere to conveyance and disposal standards. **(Transport)**

- Just over 50% of FS generated in the city is safely managed at the treatment stage. The city should ensure adherance of safe treatment standards in all treatment units installed in and around the city. **(Treatment)**

- Over 75% of FS generated in the city is safely managed at the re-use/disposal stage. The city should educate / ensure safe disposal / re-use of treated byproducts produced from the treatment plants operating in and around the city **(Reuse/Disposal)**

- FSM systems and services are little available to low-income communities in the city. The city should take adequate effort to ensure inclusive coverage of hygienic FSM services to all low income communities in the city. **(Containment|Emptying|Reuse/Disposal)**

- FSM systems and services are very well available to low-income communities in the city. **(Transport)**

- FSM systems and services are not available to any extent to low-income communities in the city. The city should take adequate effort to ensure inclusive coverage of hygienic FSM services to all low income communities in the city. **(Treatment)**

Infrastructure Assessment

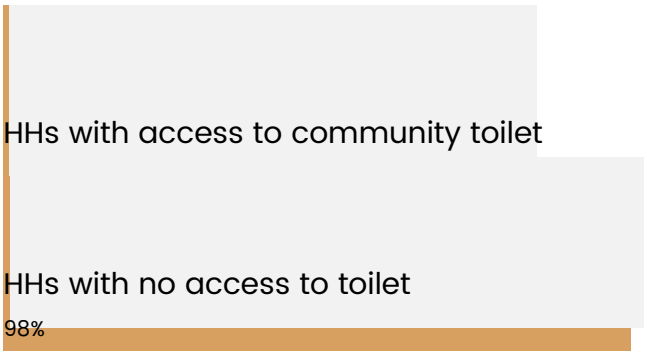
23%
Infrastructure Assessment score

100,000 Households
1,000 Commercial
10,000 Institutional
1,000 Industrial
1,000 Community Toilets
5 Public Toilets

Sample Size:
The FSM Pro assessment was conducted in Trichy with a city level sampled population. The sample was calculated with a confidence level of 95%. The table shown below is the sample size that was covered for arriving at the assessment report.

Access to Toilets

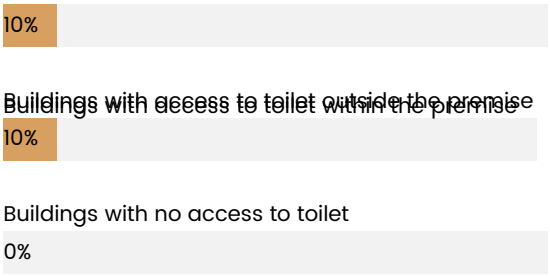
Households



Access to toilet by households
Of the 100,000 households in the city. The remaining 98% of households do not have access to any kind of toilet facility in the city. It is important for city governments to take initiative to improve the coverage of toilets across the city.

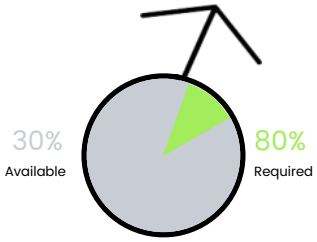
FSM Toolbox has dedicated planning modules to assist you in planning household and community toilet construction required by geography, type of toilet user interface and onsite sanitation system technology relavent by geography in your city. Learn more.

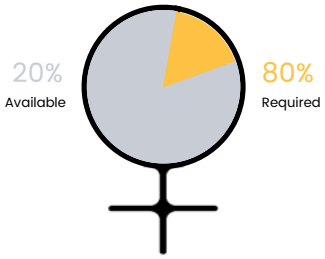
CII Buildings



Access to toilet by CII buildings in the city. The commercial establishments, institutions and industrial properties are together classified as CII buildings. There are a total of 11 properties in this category in the city of Trichy. It is great to learn that 10% of buildings have access to toilet facility within their premises and about 10% of buildings have access to toilet facility outside premises. The city has already taken adequate efforts to improve the overall access to toilets in CII buildings in the city.

Adequacy of Public Toilets (in the)





Public Toilets It is learnt that the city of Trichy do not have adequate toilet seats for men and women in public areas of the city. The coverage of public toilets for men is about 30% and 20 % for women respectively. It is important for city governments to take initiative to improve the coverage of public toilets across the public areas in city.

*It is to be noted that the rapid assessment is built to measure only the adequacy of toilets in terms of quantity while the actual geographical positioning of these toilets could vary in reality. In order to conduct an accurate assessment, we highly recommend you conduct FSMPro assessment to arrive at a comprehensive geospatial assessment of sanitation situation of your city.

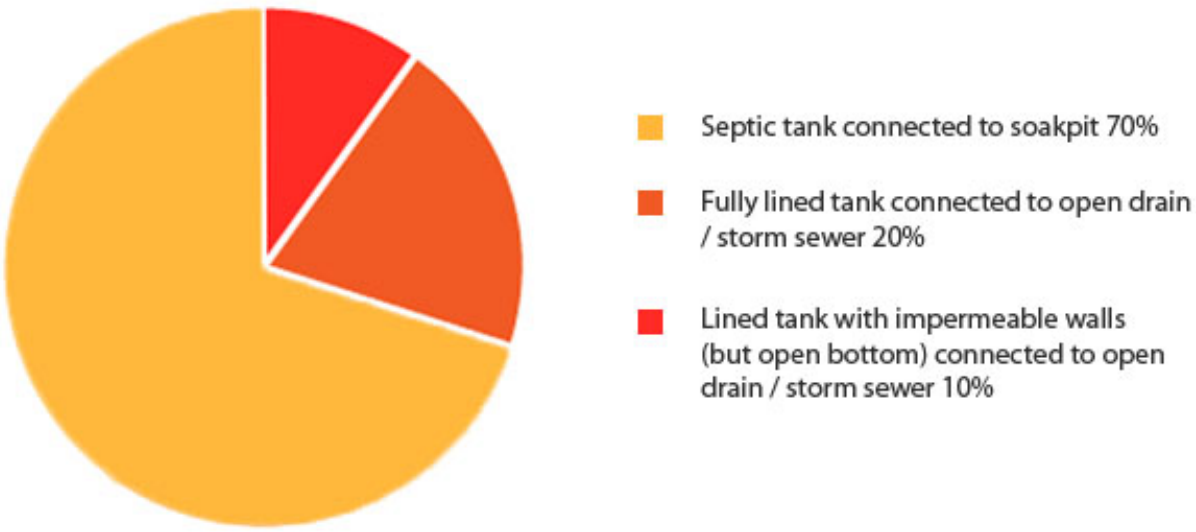
FSM Toolbox has dedicated planning modules to assist you in planning total number of public toilet seats required by geography, type of toilet user interface and onsite sanitation system technology relevant by geography in your city. Learn More

Onsite Vs Offsite Systems

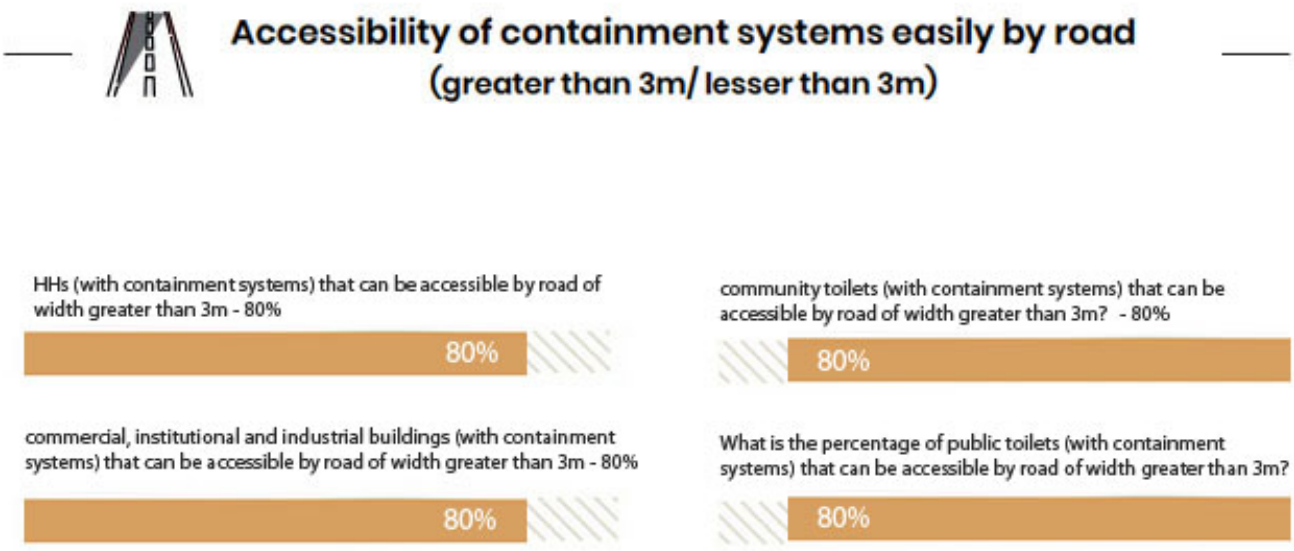
Of all the existing properties in the city with toilet facilities (including public and community toilets), 100% of toilets are connected to onsite sanitation systems.

OSS Characteristics

The graph shown here describes the overall distribution of types of onsite sanitation systems (OSS) in the city.



About 90% of Onsite Sanitation Systems in properties in the city have been emptied at least once. About 10% of OSS have not been emptied even once since the time of construction. These OSSs have a great risk of seepage over years and hence act as a risk factor, polluting the ground water table of the city. The local authority should take appropriate measures to ensure timely desludging of such OSSs in the city.



The graph shown here describes the percentage distribution of properties in the cityname that can be accessed by road of width less than 3m only. It is to be noted that the desludging operators should have vehicle availability to cater to the needs of those properties located on roads with poor access.

Adequate

After studying the existing desludging operators in the city, it is apparent that there are adequate desludging.

The options should be

- Buildings with septic tanks
- Buildings with fully lined tanks
- Buildings with Lined tank with impermeable walls (but open bottom)

FSM Toolbox has dedicated modules to assist you in developing vehicle procurement plan in order to meet the city's overall demand for conducting desludging services effectively. Learn More.

If there are NO appropriate treatment units in the neighbourhood

It is noted that about 90% of overall faecal sludge that is desludged by the operators do not reach the treatment plant and is dumped into the environment. The desludging operators do not have any dedicated treatment unit in the neighbourhood for safe disposal of the collected faecal waste. The city government should take adequate steps to set up faecal sludge treatment unit in the neighbourhoods of the cityname.

FSM Toolbox has dedicated modules to assist you in planning and implementation of faecal sludge treatment units in the neighbourhood. Learn More.

Presence of treatment systems in and around the city

It is to be noted that there is no treatment plant located in and around cityname. It is important to ensure safe management of faecal sludge collected in the city. Hence the city should to take appropriate steps towards the construction of a treatment plant each neighbourhood.

FSM Toolbox has dedicated modules to assist you in planning and implementation of faecal sludge treatment units in the neighbourhood. Learn More