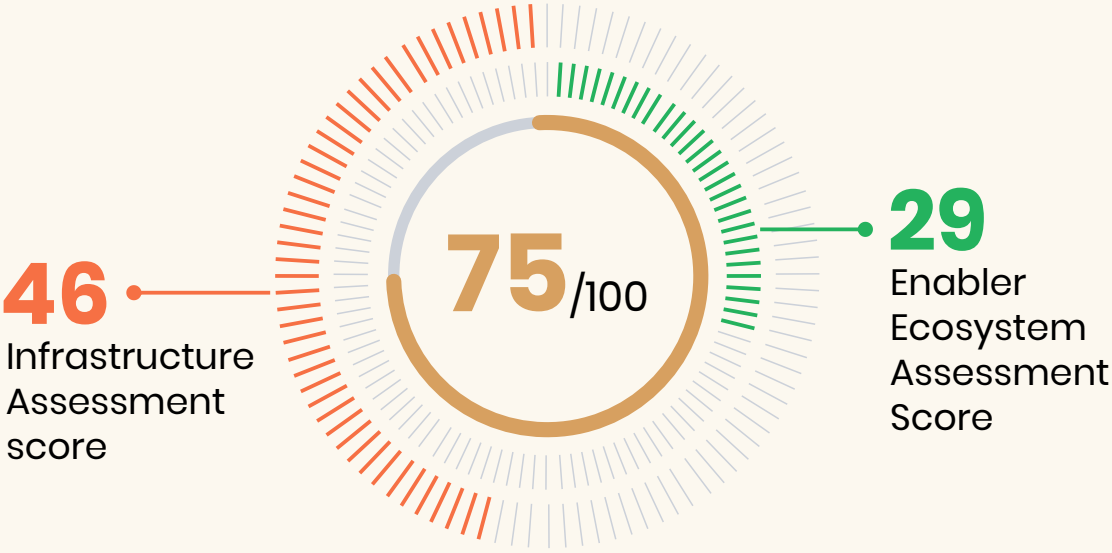
FSM
Faecal Sludge Management
TOOLBOX

ATHENA
INFONOMICS

City Assessment Report

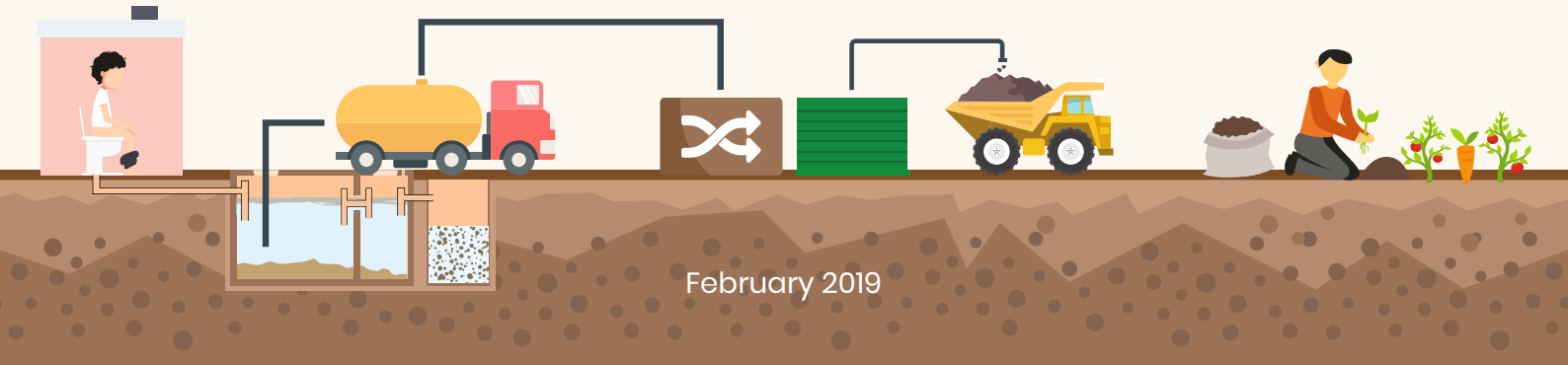
CITY NAME



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

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

The FSM infrastructure of the city requires improvement with a focus on - containment systems and treatment infrastructure. The enabler ecosystem assessment score indicates need for improvement in aspects of - Operation and maintenance.



February 2019

City Assessment Report: City Name

February 2019

Produced By: User Name, Designation, City, State Country.

www.fsmtoolbox.com

FSM Faecal Sludge Management TOOLBOX

ATHENA INFONOMICS

CONTENTS

Overall Assessment Output

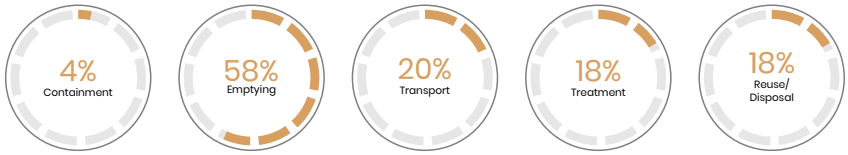
Enabler Ecosystem Assessment

City Typology	ENABLING	DEVELOPING	SUSTAINING
	●	●	●

POOR
DEVELOPING
GOOD

	CONTAINMENT	EMPTYING	TRANSPORT	TREATMENT	REUSE / DISPOSAL
ENABLING					
Policy	1.5	0.5	0	0	0
Planning	1	0	0	0	0
Budget	0	0	0	0	0
DEVELOPING					
Expenditure	0	0	0	0	0
Equity	0	0	0	0	0
Output	0	0	0	0	0
SUSTAINING					
Operation & Maintenance	0	0	0	0	0
Expansion	0	0	0	0	0
Service	0	0	0	0	0

Infrastructure Assessment



Detailed Assessment Report

Enabler Ecosystem Assessment

City Typology

ENABLING | DEVELOPING | SUSTAINING

POOR
DEVELOPING
GOOD

ENABLING

Policy

1.5 | 0.5 | 0 | 0 | 0

- Great to learn that the city has an appropriate and approved policy document acknowledged by all the stakeholders in the city.
- Good that you have taken the first step towards development of the policy document. You should present the draft policy document among the core stakeholders, solicit feedback from the core group, refine and publish the policy document widely.
- 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.
- Great to learn that the city has clearly defined and operationalized institutional roles.
- Encourage/enforce stakeholders to operationalize defined institutional roles.
- Identifying key stakeholders and demarcating roles and responsibilities among the group will enhance FSM service delivery across the city.
- Great to learn that the city has established and enforced legal and regulatory mechanisms.
- 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.
- 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 regulatory mechanisms.

POOR
DEVELOPING
GOOD

ENABLING

Planning

1 | 0 | 0 | 0 | 0

- 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.
- No service targets are defined at the city level. Please engage with the relevant stakeholders and define service targets in a collaborative fashion.
- No service targets are defined at the city level. Please engage with the relevant stakeholders and define service targets in a collaborative fashion.
- Great to learn that the city has FSM incorporated into an approved investment plan that covers all aspects of the project's lifecycle including HR investment plan, TA, capacity building, etc.
- Though FSM investment plan exists, it is important to comprehensively cover all aspects of FSM implementation such as HR needs, TA needs, etc.
- 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 in line with the overall city FSM development plan of the city.

ENABLING

Budget

1 | 0 | 0 | 0 | 0

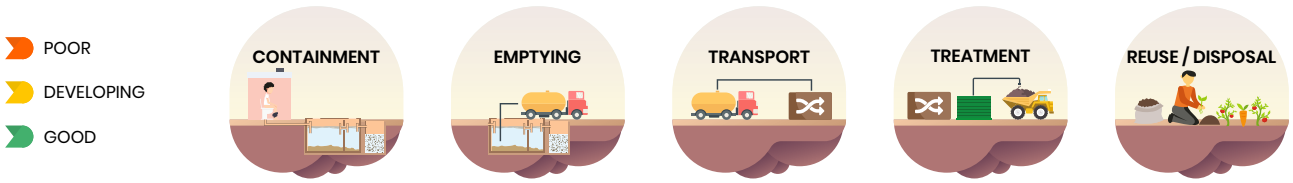
- Great to learn that the city has a defined process for coordinating FSM investments.
- The city must strengthen the process for coordinating investments from domestic and international donors, national grants, state budgets, donor loans, grants and others.
- The city must establish a process for coordinating investments from domestic and international donors, national grants, state budgets, donor loans, grants and others.

DEVELOPING

Expenditure

1 | 0 | 0 | 0 | 0

- The annual public financial commitments for FSM are quite healthy, which will help with meeting 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.

- The annual public financial commitments for FSM are insufficient to meet the service levels and needs of the city. The existing financial commitment meets just over 50% of the 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.
- The annual public financial commitments for fsm is insufficient to meet the service levels and needs for the city. The existing financial commitment meets less than 50% 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.

DEVELOPING

Equity

1 0 0 0 0

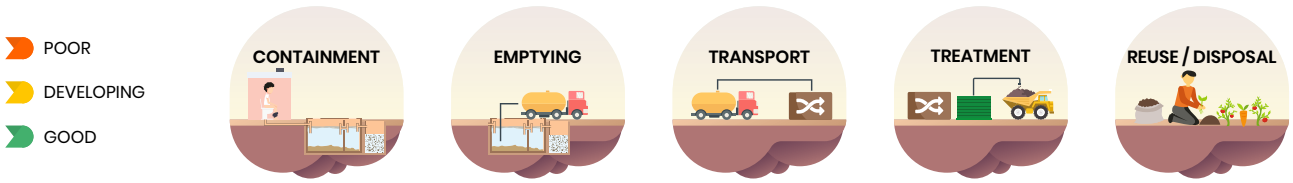
- Great to learn that the city has sufficient technology options, especially to meet the needs of the urban poor.
- The technology options are not sufficiently available in the city. The city needs to encourage the private sector to research/develop/make available technologies that meets the needs of the urban poor.
- The technology options are insufficient in the city. The city needs to engage with the private sector extensively to encourage mobilization of affordable, appropriate, safe and adoptable technologies for FSM services in the city.
- Great to learn that the city has adequate funds, plans and measures to reduce inequities by serving FSM to all users, specifically to the urban poor.
- 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.
- The city must take adequate efforts to reduce inequalities by ensuring adequate funds, plans and measures are in place to serve all users in the city.

DEVELOPING

Output

1 0 0 0 0

- Great to learn that the capacity of the FSM players/infrastructure 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 overall quality of FSM service delivery in the city.

- 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 public and environment. The city must further encourage players to build capacities/mobilize investments/seek VGF/encourage PPPs to improve the overall quality of FSM service delivery in the city.
- 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 public and environment. The city must encourage players to build capacities/mobilize investments/seek VGF/encourage PPPs to improve the overall quality of FSM service delivery in the city.
- Great to learn that the quality of FSM is quite sufficient, just greater than 75% of services are adequate to meet public health standards. Cities must revisit their service delivery value chain to improve the overall quality of services.
- The quality of FSM is insufficient, just greater than 50% of services are adequate to meet public health standards. It is recommended to engage with sanitation experts to improve the overall quality of service delivery.
- The quality of FSM is insufficient, less than 50% of services are adequate to meet public health standards. It is recommended to engage with sanitation experts to improve the overall quality of service delivery.

SUSTAINING

Operation & Maintenance

- 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 revisits 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.
- 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.
- 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.

POOR
DEVELOPING
GOOD

- Great to learn that the city monitors the progress of user fees collection regularly and encourages tax collectors to levy penalties against users who don't comply with these standards.
- Though the city is monitoring the progress of user fees collection, the city is not adequately levying penalties for users who do not comply with set standards. This city is highly encouraged to set individual collection targets for each year, encourage the tax collectors to levy penalties for users unwilling to comply with standards, and incentivize fee collectors for achieving individual service targets.
- 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 fee collectors to achieving individual service targets.

SUSTAINING

Expansion

1 0 0 0 0

- Great to learn that the city taken adequate efforts to increase the overall demand for FSM services and this has resulted in a constant growth in demand.
- Though the city has taken efforts to increase the overall FSM demand, the demand has not increased quite significantly. The city should build capacities of the service providers and develop targeted IEC strategies for improving the overall demand for FSM services in the city
- 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, behaviour of households and responses by service providers.
- Great to learn that the programmes and measures to strengthen overall quality of service providers have been successfully implemented in the city. The entire value chain has been streamlined, the sector is highly organized and has been constantly expanding.
- Though programmes and measures to strengthen the quality of service providers exist, little has been changed. Majority of the service providers remain disorganized and the sector is not expanding as per the development plans prepared by the city government.
- The city should focus on overall sector development by establishing programmes to strengthen the quality of service providers, structure in their day to day operations and develop a roadmap for comprehensive growth/expansion over the coming years.

POOR
DEVELOPING
GOOD

SUSTAINING

Service

1	0	0	0	0
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.	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.	Over 75% 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.	Over 75% of FS generated in the city is safely managed at the treatment stage. The city should ensure adherence of safe treatment standards in all treatment units installed in and around the city.	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 by-products produced from the treatment plants operating in and around the city.
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POOR

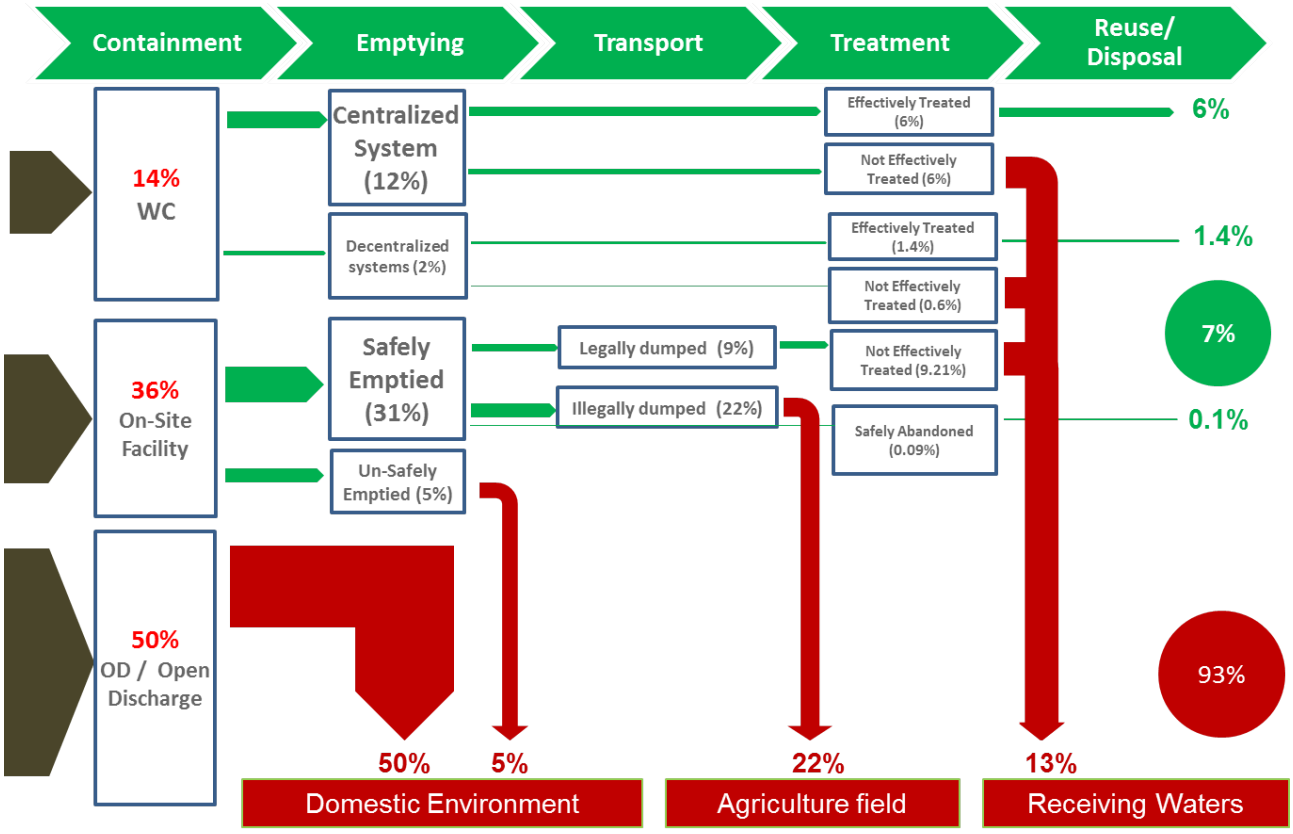
DEVELOPING

GOOD

Less than 50% 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.	Less than 50% 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.	Less than 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.	Less than 50% of FS generated in the city is safely managed at the treatment stage. The city should ensure adherence of safe treatment standards in all treatment units installed in and around the city.	Less than 50% 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 by-products produced from the treatment plants operating in and around the city.

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

Shit Flow Diagram



Infrastructure Assessment

46/50

35678 Households

35678 Commercial buildings

35678 Institutional buildings

35678 Industrial buildings

35678 Community Toilets

35678 Public Toilets

Access to Toilets

Households

HH with access to HH toilet

62%

HH with access to community/public toilet

54%

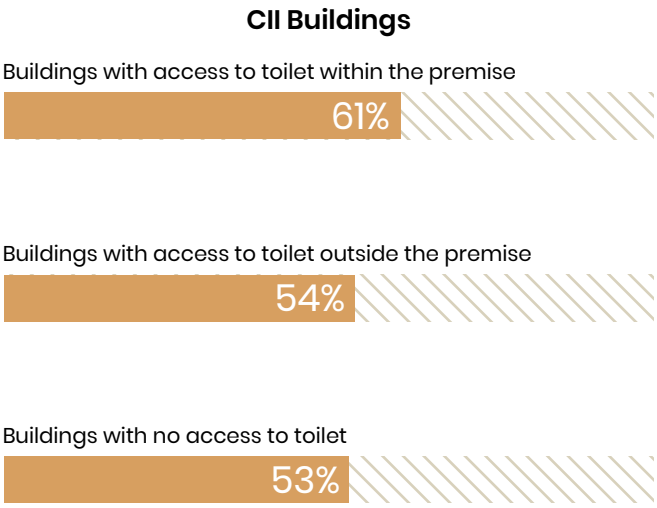
HH practicising OD

51%

Access to toilet by households

Of the X1 households in the city, about Y1% of households have access to household toilet facilities and about Y2% of households have access to community toilets in their neighbourhood. The remaining Y3% 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 in your city.

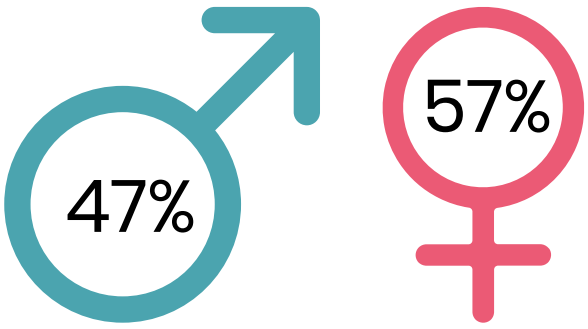


Access to toilet by CII buildings in the city

The commercial establishments, institutions and industrial properties are together classified as CII buildings. There are a total of X1 properties in this category in the city of *CityName*. About Y1% of buildings have access to toilet facility within their premises and about Y2% of buildings have access to community toilets in their neighbourhood. The remaining Y3% of buildings 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 community and public toilet construction in your city.

Adequacy of Community Toilets (for households)



Community toilets

It is estimated that *CityName* requires a total of X1 male community toilet seats and X2 female community toilet seats in each neighbourhood to meet the needs of all households without access to individual toilet facilities (due to a variety of reasons including land constraint and poor finances).

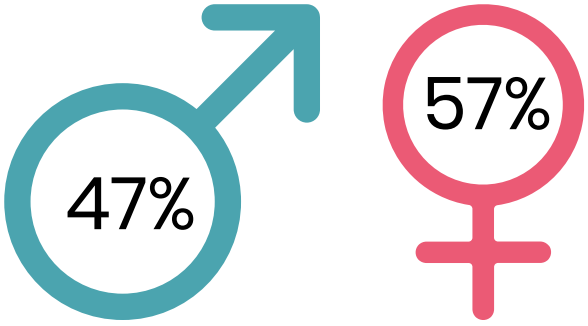
If Demand > Supply: However, the city has only X3 male community toilet seats and X4 female community toilet seats in the community, leaving an overall demand gap of about Y1% (Demand - Supply).

If Demand < Supply: Interestingly, the city has X3 male community toilet seats, i.e., Y1% higher than the demand and X4 female community toilet seats, i.e., Y2% higher than the demand in the community.

**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 community toilet seats required by geography, type of toilet user interface and onsite sanitation system technology relevant by geography and arriving at an overall cost estimation for planning future infrastructure investments in the community.

Adequacy of Public Toilets (in the city)



Public Toilets

It is estimated that the city of *CityName* requires a total of X1 male public toilet seats and X2 female public toilet seats in the neighbourhood to meet the needs of all the floating population of the city (Total Floating Population).

If Demand > Supply then: However, the city has only X3 male public toilet seats and X4 female public toilet seats in the neighbourhood, leaving an overall demand gap of about Y1% (Demand - Supply).

If Demand < Supply then: Interestingly, the city has X3 male public toilet seats, i.e., Y1% higher than the demand and X4 female public toilet seats, i.e., Y2% higher than the demand in the neighbourhood.

* *It is to be noted that the rapid assessment is built to measure only the adequacy 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.*

Onsite Vs Offsite Systems

Of all the existing properties in the city with toilet facilities (including public and community toilets), about Y1% of toilets are connected to offsite sanitation systems and about Y2% of toilets are dependent on onsite sanitation systems.

OSS Characteristics

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

Graph on contained vs Not contained

It is realized that about Y3% of OSS in the city are not well-contained systems, thus polluting the groundwater quality in the city. Greater care must be taken by the city authority to monitor the compliance of new/old OSS to environmental safety.

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 and arriving at an overall cost estimation for planning future infrastructure investments in the city.

About Y0% of Onsite Sanitation Systems in properties in the city have been emptied at least once. About Y0A% 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.

Accessibility of containment systems easily by road (greater than 3m/ lesser than 3m)

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.

Adequacy of desludging vehicles and operators in the city

INADEQUATE

If desludging operators are inadequate

After studying the existing desludging operators in the city, it is apparent that there are adequate/inadequate desludging operators for addressing the needs of

- Buildings with pits
- Buildings with septic tanks
- Buildings with “XYZ” containment systems
- Buildings with poor road access

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.

If there is appropriate treatment unit in the neighbourhood

It is noted that about Y1% of overall faecal sludge desludged by the operators do not reach the treatment plant and subsequently is dumped. The desludging operators must be educated about the adverse impact of poor waste handling practices and relevant regulations and monitoring mechanisms should be enforced within the cityname.

FSM Toolbox has dedicated learning modules to assist you in drafting regulations, improving overall enforcement of safe transportation systems and monitoring systems in the city.

If there are NO appropriate treatment units in the neighbourhood

It is noted that about Y1% 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.

Presence of treatment systems in and around the city

If there is no treatment unit within 15km radius (no)

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.

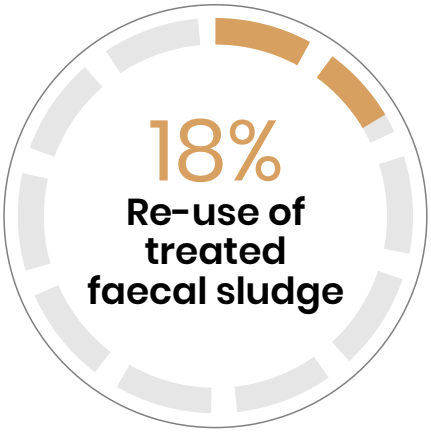
If there is a treatment unit within 15km radius (yes)

It is great to learn that city of Cityname has a treatment unit available in and around the city. The overall efficiency of the treatment unit is about Y2%. About Y3% of the waste that is entering the treatment plant is led to the environment without any further treatment, posing a high risk of water contamination in the city neighbourhoods. Cityname should take adequate efforts to improve the overall treatment quality of the treatment unit of the city.

FSM Toolbox has extensive learning modules to assist you in improvement of overall quality of treatment units in the city.

Re-use of treated wastewater

Of the total Fecal Sludge that is treated, about Y1% of treated wastewater and Y2% of treated faecal sludge is re-used in and around the city. The city should encourage industries and farmers to increase uptake of treated sanitation products (treated wastewater and faecal sludge) produced from the treatment units.



FSM Toolbox has extensive learning modules to assist you in improvement of overall quality of treatment units in the city.