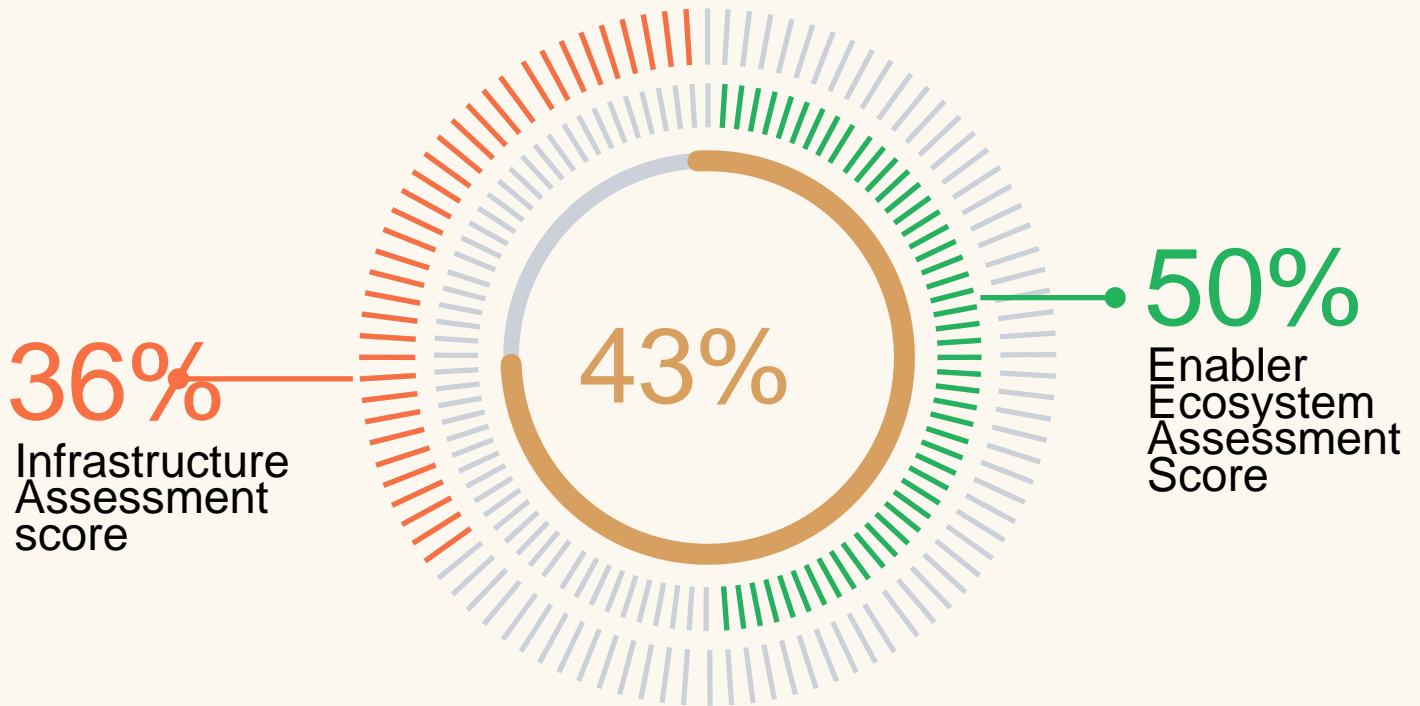


Bangalore

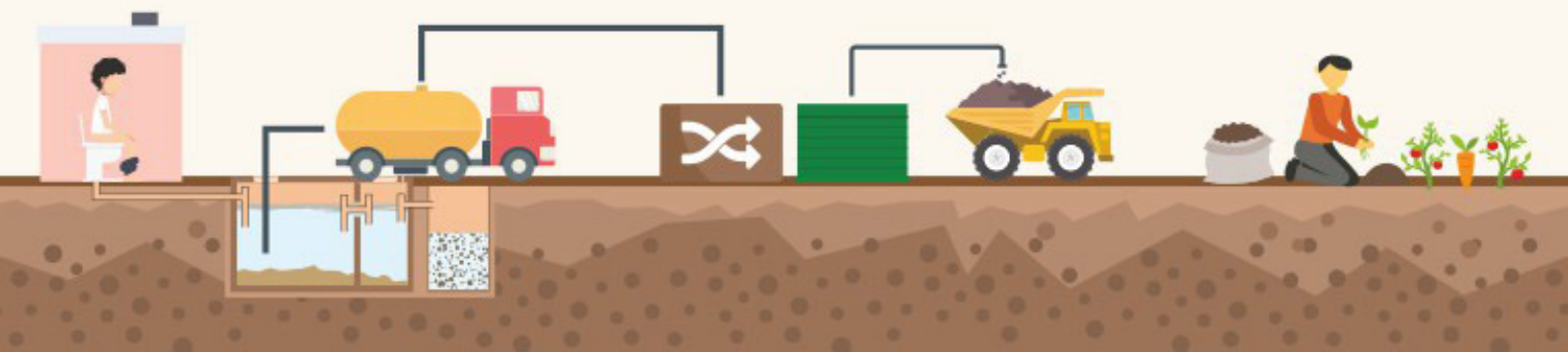


The FSM Index score indicates that the Overall FSM performance of the city is

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.



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City Assessment Report: Bangalore

18 Mar 19

Produced By: Kowshik , Athena Infonomics, Bangalore, Karnataka, India.

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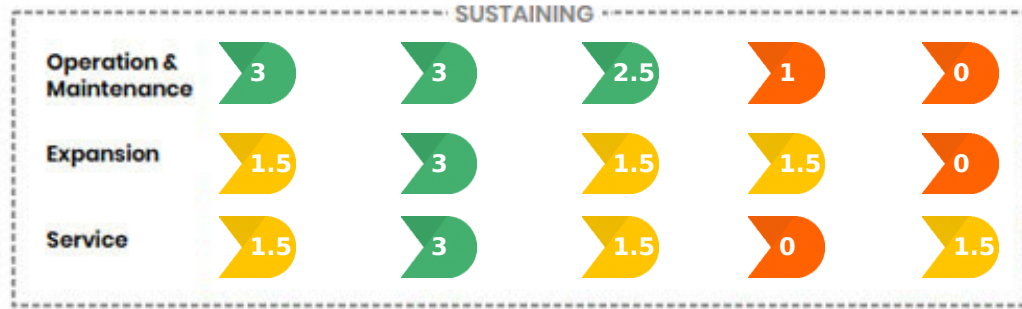
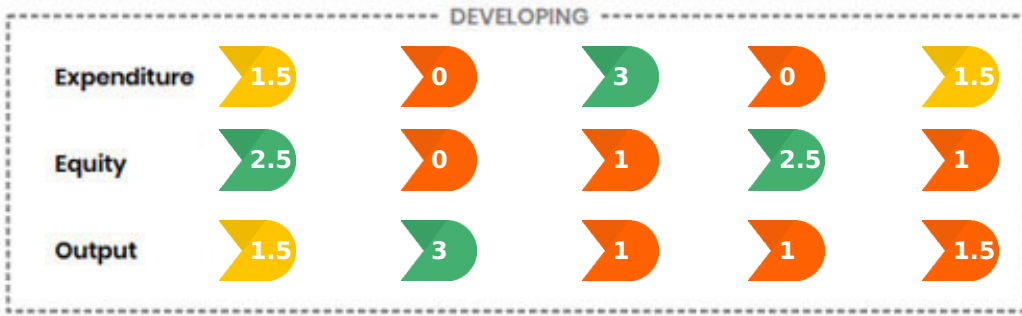
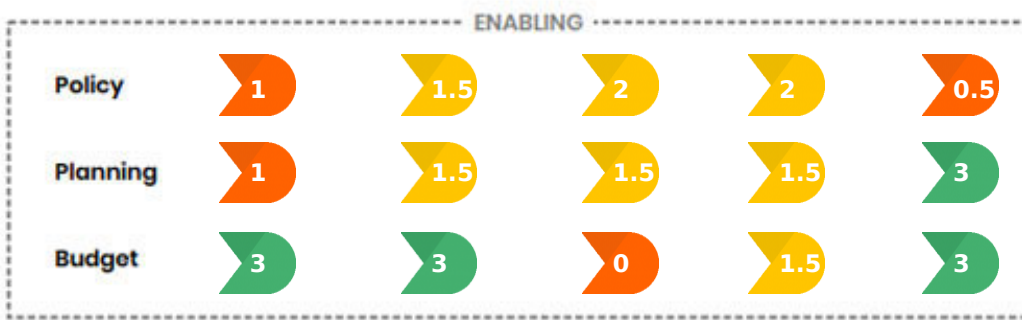
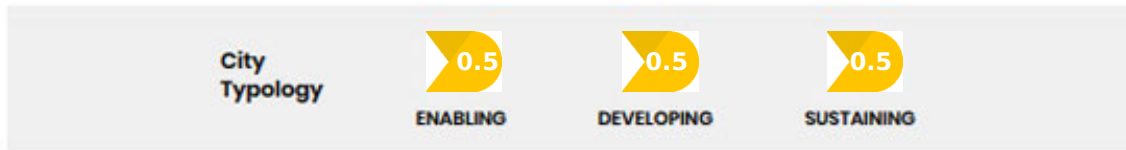
All FSM Toolbox materials are freely available following the open-source concept for capacity development and non-profit use, so long as proper acknowledgement of the source is made when used. Source: The FSM Toolbox.

www.fsmttoolbox.com

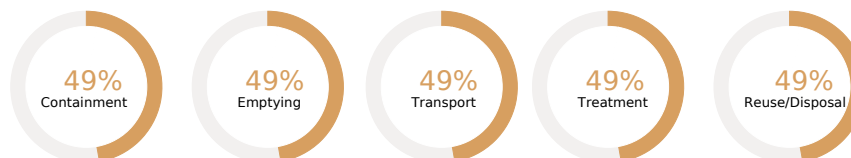


Overall Assessment Output

Enabler Ecosystem Assessment



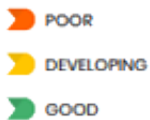
Infrastructure Assessment



Enabler Ecosystem Assessment



City Typology



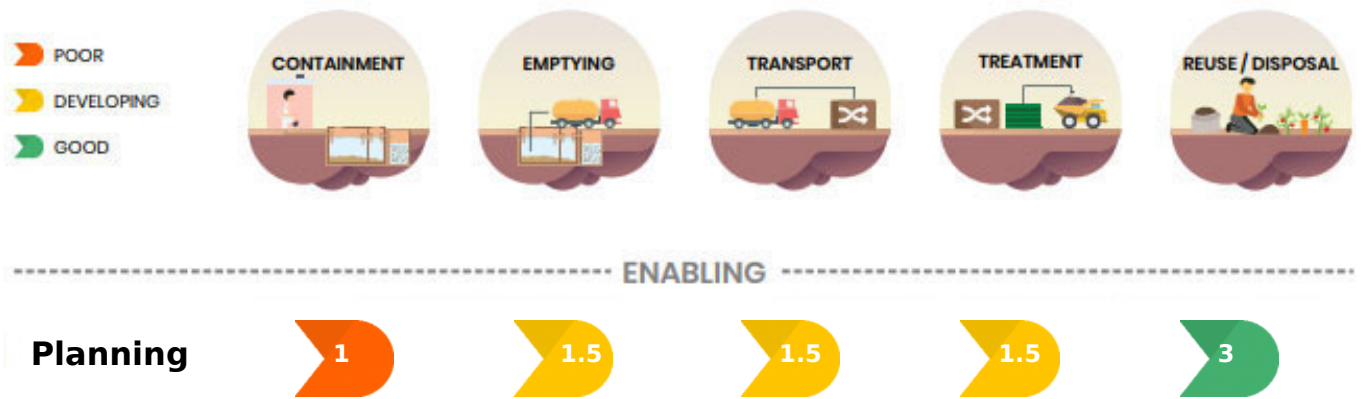
ENABLING

Policy

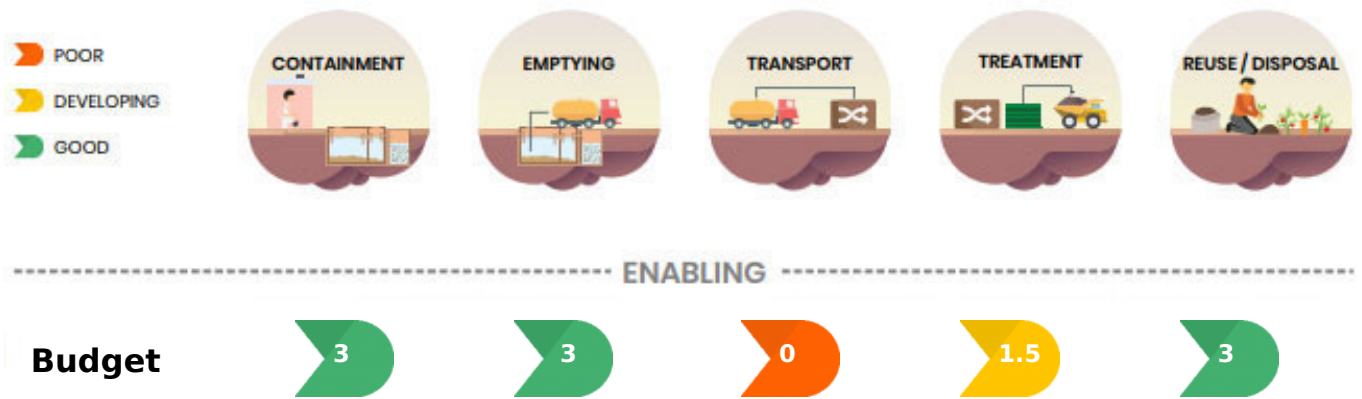


- Great to learn that the city has an appropriate and approved policy document acknowledged by all the stakeholders in the city.
- Now that you have taken the first step towards development of the policy document. Present the draft policy document among key stakeholder, solicit feedback refine and publish the policy document and disseminate widely.
- Currently there is no policy document for FSM . Creation of a policy document is an important step towards ensuring institutionalization of safe management of Faecal Sludge 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 appropriate 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 for safe management of Faecal Sludge in the city.

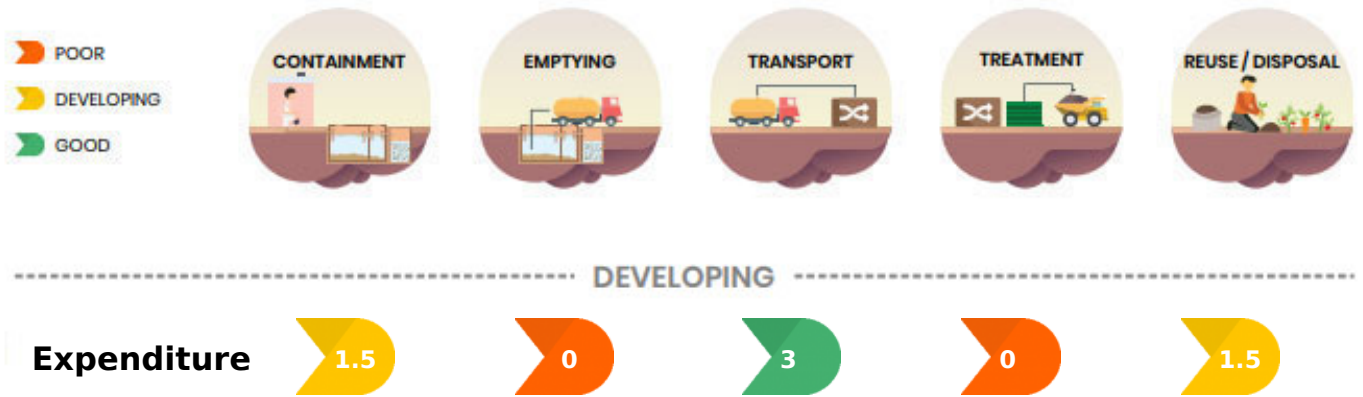




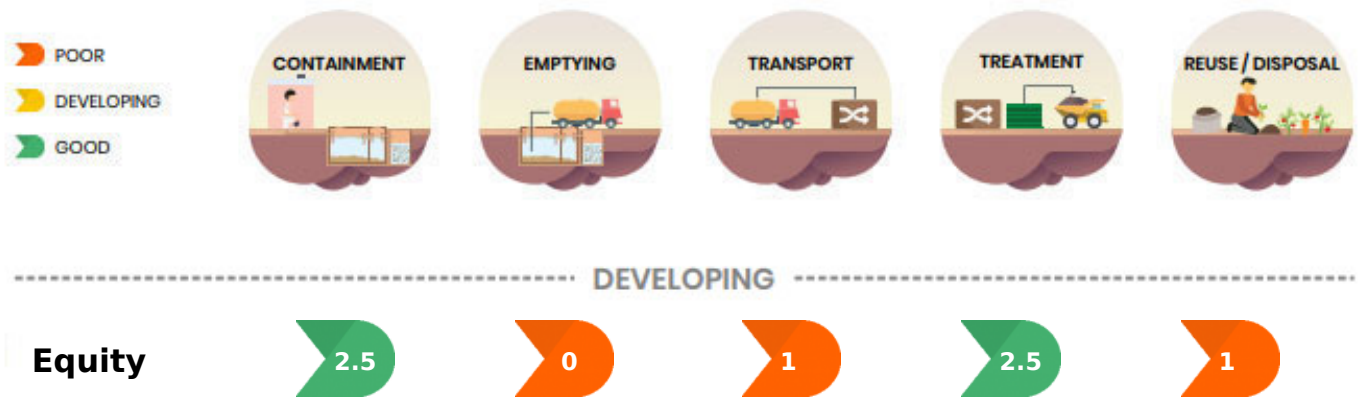
- Great to learn that the city has defined service levels and targets in the development plan adopted at the city level.
- While the service levels are defined at the city level, the city is yet to set targets for itself against the established service levels. Based on your current baseline, please set targets against each service level for your city.
- There are no service levels or targets defined at the city level, which makes it hard to track if the city is making progress on improving service delivery outcomes. Please adopt service delivery levels and set annual targets for your city, given your current baseline for each service.
- Great to learn that the city has undertaken a needs assessment and developed an investment plan to improve FSM, including human resource needs, technical assistance and capacity building etc.
- Even though an FSM investment plan exists, it does not cover your city's human resource needs and capacity gaps.
- Cities must have a clear investment plan for improvement of the FSM situation in the city. Please evaluate the overall performance of your city vis-à-vis FSM, identify priorities for improvement through engaging with appropriate stakeholders and develop a comprehensive FSM investment plan.



- Great to learn that the city has a defined process for coordinating FSM investments.
- The city must operationalize and 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.

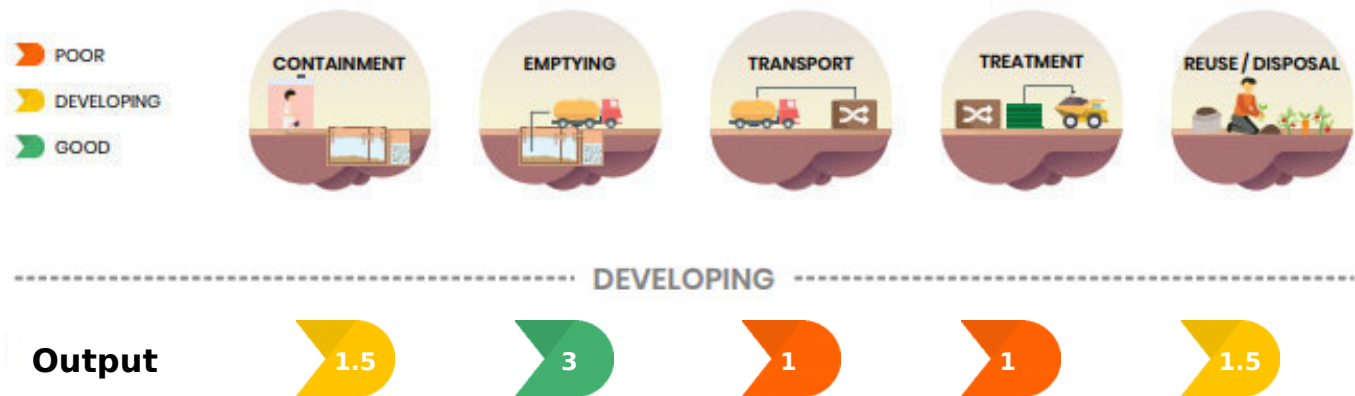


- The annual public financial commitments for FSM are quite healthy to meet the service levels and needs of the city. The existing financial commitment meets over 75% of overall FSM requirement for the city. The city may further mobilize gap funds from national grants, state budgets, donor loans, grants or engage the private sector through PPP models.
- 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 overall FSM requirement for the city. The city must take concerted efforts to mobilize funds from national grants, state budgets, donor loans, grants or engage the private sector through PPP models
- The annual public financial commitments for FSM is insufficient to meet the service levels and needs of the city. The existing financial commitment meets less than 50% of the overall FSM requirement of the city. The city must take concerted efforts to mobilize funds from national grants, state budgets, donor loans, grants or engage the private sector through PPP models

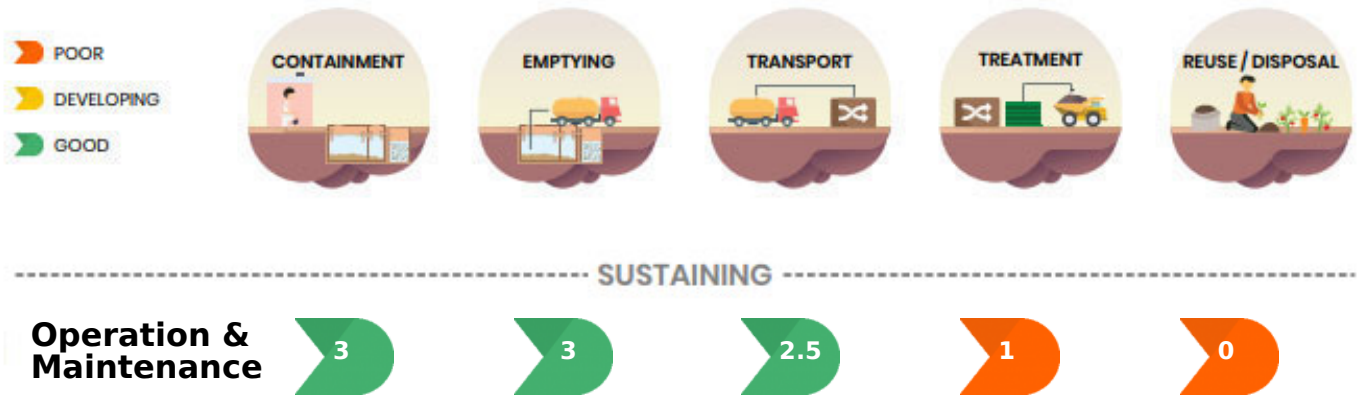


- Great to learn that the city has sufficient technology options, especially to meet the needs of the urban poor.
- The city’s technology options are insufficient to meet the needs of the poor. The city needs to encourage investments in research and development of context specific technologies that meet the needs of the urban poor.
- The city’s technology options are insufficient overall to meet the needs of households in the city. The city needs to identify a suite of relevant technologies and strengthen its ability to attract investments to improve the options available.
- Great to learn that the city has developed and put to use adequate funds and measures to reduce inequities for all users, specifically the urban poor.
- While efforts have been made to mobilize funds, the utilization of these funds to reduce inequality remains low. Efforts must be taken to identify reasons for low utilization and find ways to use the funds to reduce inequalities in the city.
- Limited efforts have been made to raise funds for the city to reduce inequalities. The city first must map the needs and priorities of the low-income consumers and formulate a plan to mobilize and then put to use these funds to meet the needs and bridge the equality gap.

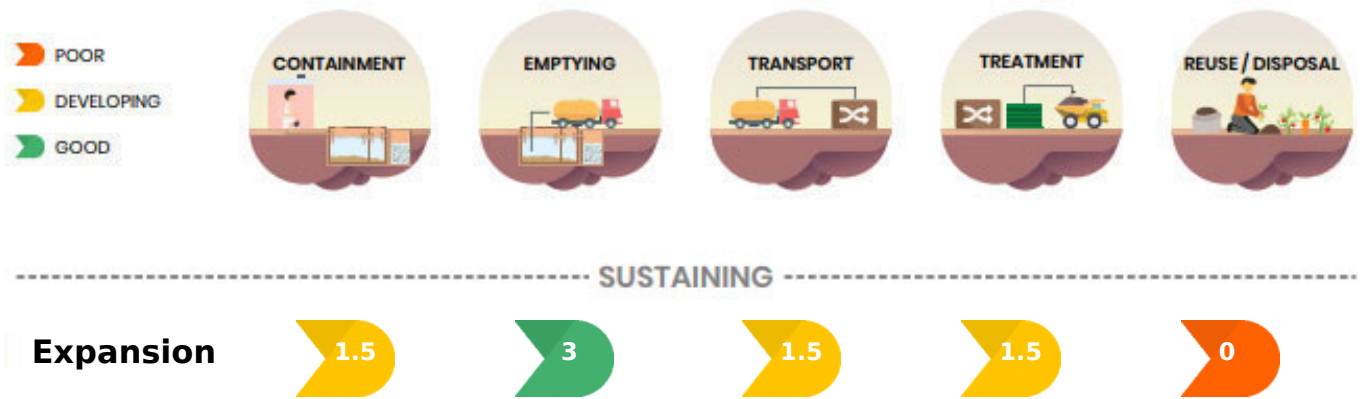




- Great to learn that the capacity of FSM players/infrastructure is growing at a good pace (over 75% growth) to meet the needs, demands and targets to protect the overall public and environmental health.
- The capacity of the FSM players/infrastructure is growing at a decent pace (just over 50% growth) to meet the needs, demands and targets to protect the overall public and environmental health.
- The 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.
- Great to learn that over 75% of services are of an adequate public health standard.
- Just over 50% of services are of an adequate public health standard and the current situation poses a serious public health and environmental risk.
- There is a very high level of public health risk as less than 50% of services meet public health standards.



- 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.
- Just over 50% of the city’s overall operations and maintenance cost is met through user fees and/or local revenue or transfers. The sustainability of FSM operations and the quality of service delivery in the town is at risk owing to low financial viability.
- Less than 50% of the city’s overall operations and maintenance cost is met through user fees and/or local revenue or transfers. The sustainability of FSM operations and the quality of service delivery in the town is at risk owing to low financial viability.
- Great to learn that the city has identified a set of norms and standards that are systematically monitored
- The city has a set of norms and standards and monitors them. However, there are no mechanisms disincentivize non-compliance with the norms through penalties/sanctions
- The city is yet to put in place a mechanism to monitor norms and standards.



- Great to learn that the city has implemented demand generation policies, procedures or programs to both stimulate and increase demand and ensure that this is being responded to
- The city has been implementing demand generation policies, procedures or programs, but the resulting demand is not fully addressed
- The city has not taken efforts to increase demand through demand generation policies, procedures or programs
- Great to learn that the programs and measures to expand service provision and networks of service providers is underway through better co-ordination of action of public and private sector service providers
- While a few measures and programs to strengthen and expand the network are underway : the majority of service providers remain largely disorganized and the FSM services they provide are not expanding at an appropriate rate.
- Programs and measures to strengthen the service providers do not exist (or exist on paper only and have not been implemented); the service providers remain disorganized and the FSM services they provide are not expanding.



----- SUSTAINING -----

Service

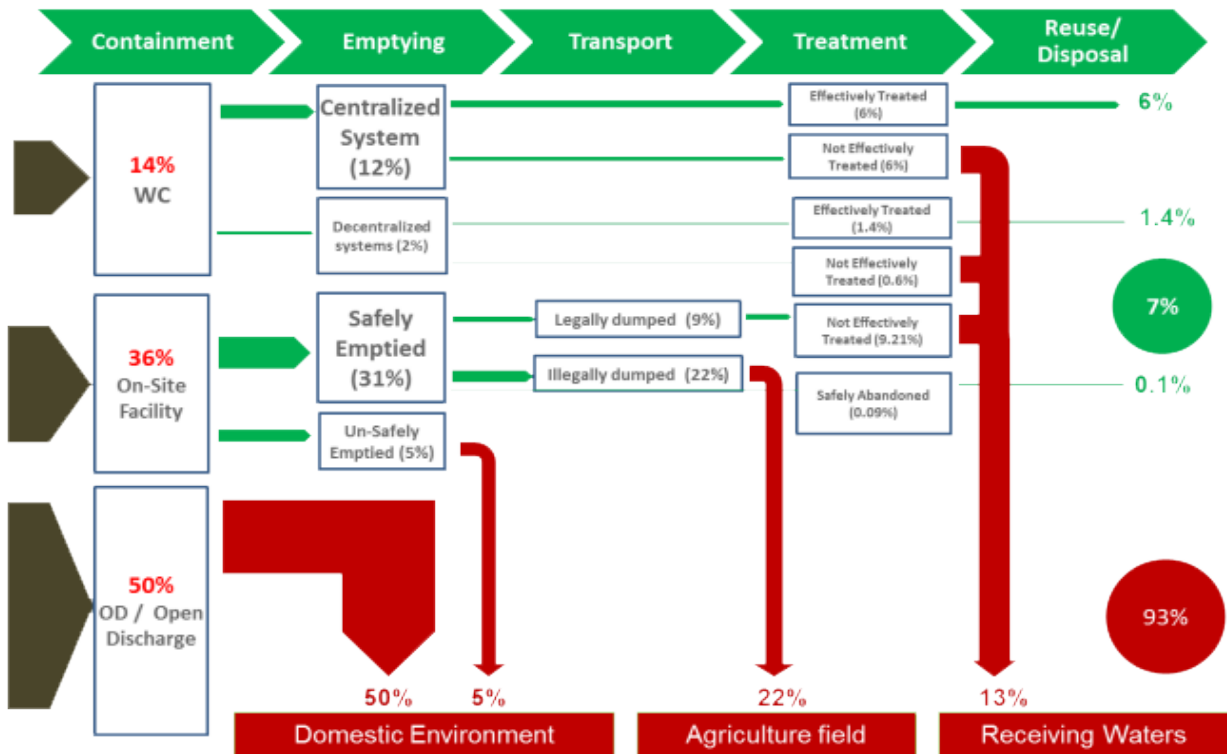


Over 75% of FS generated in the city is safely managed at the containment stage. The city should encourage households to improve the overall quality of containment systems in the city to meet environmental safety standards.	Over 75% of FS generated in the city is safely managed at the emptying stage. 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.
Just over 50% of FS generated in the city is safely managed at the containment stage.	Over 75% of FS generated in the city is	Just over 50% of FS generated in the city is safely managed at the emptying stage.	Over 75% of FS generated in the city is	Just over 50% of FS generated in the city is safely managed at the conveyance stage.

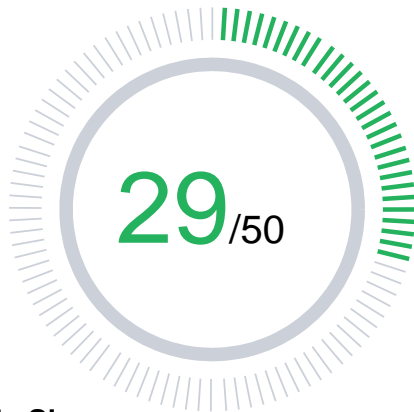
- It is great to note that hygienic FSM systems and services are affordable and readily available in low-income communities
- Hygienic FSM systems and services are available on a partial / piecemeal basis in low-income communities (or in some)
- Hygienic FSM systems and services are not available to any significant extent in low-income communities.



Shit Flow Diagram



Infrastructure Assessment



530,000 Households

30,140 Commercial

7,230 Institutional

784 Industrial

1,200 Community Toilets

145 Public Toilets

Sample Size:

The FSM Pro assessment was conducted in CityName with a city level/ward level/zone/division 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

HHs with access to individual toilet



HHs with access to community toilet



HHs with no access to toilet



Access to toilet by households

Of the X1 households in the city, about 63% of households have access to household toilet facilities and about 54% of households have access to community toilets in their neighbourhood. The remaining 13% 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. [Learn more.](#)



CII Buildings

Buildings with access to toilet within the premise



Buildings with access to toilet outside the premise



Buildings with no access to toilet



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 113 properties in this category in the city of Samneua. It is great to learn that 100% of buildings have access to toilet facility within their premises.





Adequacy of Public Toilets (in the)



Public Toilets It is interesting to learn that city of Samneua has adequate toilet facilities (5 toilet seats for men and 6 toilet seats for women) in the city. There is no reported waiting time to access these toilet facilities in the 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.*

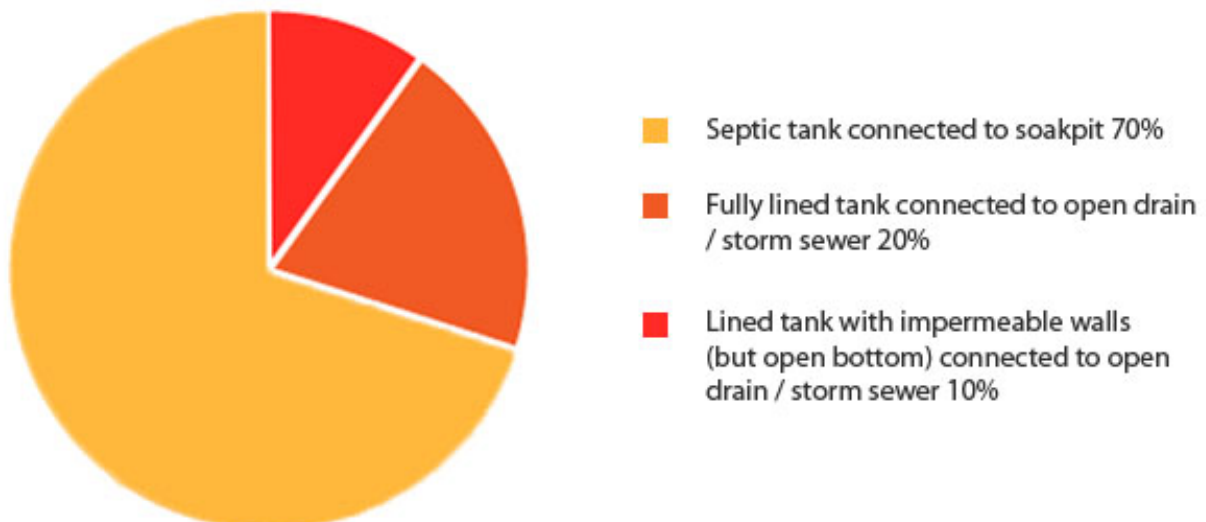
FSM Toolbox has dedicated planning modules to assist you in planning total number of community toilet seats required by geography, type of toilet user interface and onsite sanitation system technology relevant by geography and arriving at an overall cost estimation for planning future infrastructure investments in the community. [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.



Graph on contained vs Not contained It is realized that about 90% of OSS in the city are not well-contained systems, thus has the highest potential for 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. [Learn more](#).



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.



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

HHs (with containment systems) that can be accessible by road of width greater than 3m - 80%



community toilets (with containment systems) that can be accessible by road of width greater than 3m? - 80%



commercial, institutional and industrial buildings (with containment systems) that can be accessible by road of width greater than 3m - 80%



What is the percentage of public toilets (with containment systems) that can be accessible by road of width greater than 3m? - 80%



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

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](#)

