SAT SITUATIONAL ASSESSMENT TOOL

CASE STUDY: APPLICATION IN LUANG PRABANG CITY, LAOS

Situational Assessment Tool (SAT) is a data entry platform that is designed to analyze the existing FSM practices and to plan for better FSM services by addressing the needs of the users. SAT is an excel-based tool that contains questionnaires reflecting themes like - regulations, institutions, finance, technology, advocacy, capacity building and monitoring of FSM along the service delivery pathway. The assessment results are displayed on the dashboard in the form of scorecard and report - signifying the FSM status and situation.

How is SAT useful?

- It Identifies key factors and components of FSM to establish baseline information and prioritise goals, which recognising the possible solutions.
- The assessment process helps users to identify necessary conditions and scenarios, which needs immediate attention in order to obtain effective FSM planning procedure in near future.

Limitations of SAT

- In terms of accessibility, SAT is applicable only to those designated areas where households are installed with On-site Sanitation Systems (OSS). Thus, it is not relevant to totally sewered areas or is provided with centralized sewage treatment plant.
- Moreover, SAT relies on the input provided by the users - making it cumbersome, as users are required to possess in-depth knowledge on sanitation issues and baseline information on local conditions of the selected area.

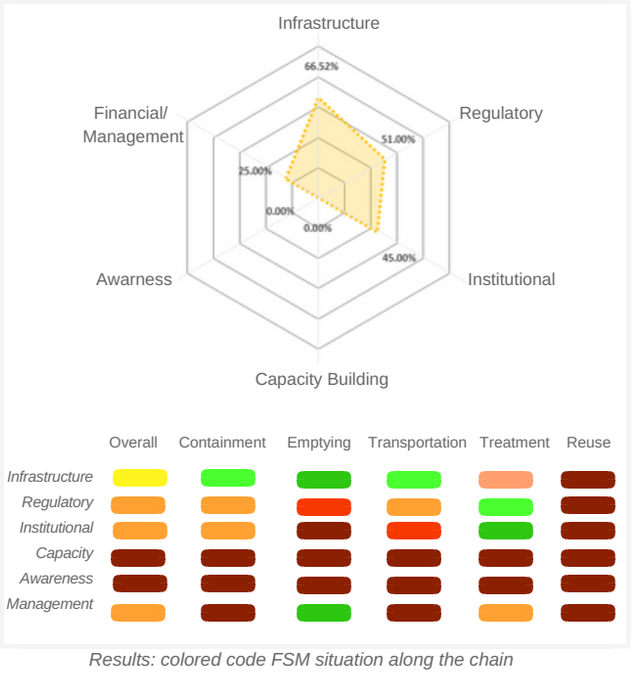
APPLICATION IN LUANG PRABANG, LAOS

Luang Prabang Province is located in north central Laos, with an are of 761 square kilometers

Population of 86,338,

98% of the populations are covered with on-site Sanitation System

OVER ALL FSM SITUATION IN LUANG PRABANG



Results: colored code FSM situation along the chain

In general, the overall FSM situation in Luang Prabang can be described as fair.

The city has the FSM services already initiated to some extend such as availability of FS treatment plant and the motorized FS desludging and transportation services. The city authorities provides the free FSM services in the city and also have high level of willingness towards improved FSM of Luang Prabang. There also NGOs who are working with government and helping to raise awareness of the FSM stakeholders, and supporting the government for the improvement of FSM services. There is also city-wide monitoring strategy and management information system which covers FSM-related issues.

However, currently there is no national or state or the city level FSM laws and regulations that the city can follow. City will also need to ensure the enforcement of those FSM laws and regulations. The enforcement of the proper monitoring approaches and update-to-date monitoring procedures are lacking. Social-cultural barriers are also present, and IEC materials for FSM are not available in local languages to break the social barriers and increase the capacity of the FSM stakeholders.

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CONTAINMENT

Infrastructure largely in place comprising 70 % septic tanks (watertight chamber), 20% of single pit latrine and 10 % rest. The regulation mandates the permits for the construction of OSS in existing and new buildings.
Not enough advocacy material on septic tanks operation and people are not aware of proper use and maintenance of septic tanks.

EMPTYING

Out of 90 % of containment system that can be desludged mechanically, 95 % are accessible. Even though desludging is not mandatory, desludging frequency is 3 years. City lacks the awareness on the importance of safe desludging process

TRANSPORTATION

Motorised transport size in place at present accounting full coverage. Provision of permits for operators for disposal of FS in place. However lacks transportation rules and regulations (road rules, time for operation) and schedules and routing of the trucks at the treatment site.
Lack of awareness about the potential hazards of inappropriate of FS transport and dumping of FS.

TREATMENT

Treatment plant with regulation for design standards, effluent standards, procedure for disposal, etc. is in place with easy accessibility.
Permits are required to treat FS
People lack awareness on the importance of FS treatment

REUSE

Reuse of treated FS is not in practice
No effort has been made to aware, promote and mandate the use of treated FS

Note:

A technical aspect (infrastructure) dominates the situation of study area over other aspects (regulatory, advocacy, etc.). Even though the study area lack other aspects (regulatory, advocacy, monitoring, etc.), having good infrastructure indicates fair – good situation of the area.

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SWOT ANALYSIS FOR LAWN PRAANG FSM

STRENGTHS

- Citywide monitoring strategy/ plan to cover FSM related issues in place
- Provision for the permits required for the construction of OSS in the existing or new building in place
- 90% of households and 100 % commercial and institutional containment system are accessible and can be desludged
- Regulations for treatment plant design standards, procedures for disposal of FS at treatment facilities and effluent standards are in place
- Easy accessibility of treatment
- Provision of permits for treatment of FS is in place

OPPORTUNITIES

- 98% of population covered by OSS
- People are willing to pay for the improvement of FSM services
- City/municipality need technical and/or financial assistance in the preparation of FSM project concepts
- No socio-cultural barriers to adoption of FSM in city/municipality
- Availability of reliable electricity for the treatment area
- Land availability for the construction of TP in future

THREATS

- FSM is not a part of legislation or legal framework, policies, strategies or development plans at national, state and city level
- Monitoring on the financial aspects along the FSM service chain on a city-wide level not in place
- City/municipality need technical and/or financial assistance in the preparation of FSM project concepts
- No transportation rules and regulations (road rules, time for operation) clearly defined for operators
- No scheduling and routing of the trucks clearly conducted to avoid congestion at treatment site
- Authorities do not account for the adequate number of trucks needed for collection to ensure the right no. of truck registration and trucks are not monitored regularly for durability issues
- Capacity of Treatment plant is not enough to treat the generated FS and even the treated septage does not meet treatment standards
- TP does not have proper safety standards

WEAKNESS

- People are not aware of monitoring of potential hygiene and health risks on a city-wide level
- People are not aware of proper use and maintenance of septic tanks
- Individual households are not aware of mandate desludging
- No provision of permits and license for emptying in place
- Lack of following IEC material for following:
  - Proper usage and maintenance of Septic tanks
  - Desludging process
  - Higligting hazards of untreated FS
- No regulation in place that outlines the standards for sludge re-use
- Lack of awareness about the ill effects of untreated FS
- Consumers are unaware that the agricultural products they consume have might been contaminated with the untreated FS.

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RECOMMENDATION FOR THE CITY FSM IMPROVEMENT

The results from the assessment using Situational Assessment Tool in Luang Prabang, presents the general FSM situation to be rated only as 'fair'. In order to improve the overall FSM situation, the city needs to carefully analyze each component of the FSM service chain and plan for interventions accordingly.

Containment

- Although DHUP issued building codes warrants that permits are required for the construction of on-site sanitation systems in existing or new buildings, the new installations are not inspected upon completion; nor tested for leaks and damages. Proper monitoring system for compliance of building codes. ?
- Penalties for non-compliance to the building codes are non-existent. Focus should be put on compliance of building codes rather than penalties (at the moment).
- People are not aware of the proper use and maintenance of septic tanks. They should have awareness raising program and production of Information Education Communication (IEC) materials.

Emptying

In spite of the septic tanks being mechanically emptied every 3 years at a fee for households, awareness level for mandatory desludging still remains nominal. Awareness raising programs highlighting the need for mandatory desludging should be implemented, alongside the investments into improving the entire FSM chain as well.

Transportation

- The government should discuss the detailed definition of legal frameworks (rules and regulations for operators), as well as, have a clear understanding of scheduling and routing of the trucks to avoid bottlenecks.
- Regular monitoring for durability issues and technical monitoring on the trucks maintenance is must, and an authority accounting the numbers of trucks needs to ensure that right number is registered.
- The government should raise awareness on the potential hazards of inappropriate faecal sludge transportation services and illegal dumping and spillage. Advocacy materials on laws, regulations, and improper practices of faecal sludge transportation will help to raise people's sensitivity.

Treatment

- Availability of large swarths of land should be discussed for the implementation of treatment plants
- The government should issue penalties for non-compliance and awareness should be built regarding the negative effects of overflow of septic tanks.

Reuse

- Devoid of regulations that outline the requirements/standards for sludge reuse. Reuse standards should be developed with monitoring procedures to check the reuse products.
- Consumers are not aware of the contaminated agricultural products due to untreated faecal sludge. Given the socio-cultural barriers in acceptance of re-use products, a way forward could be a community-based awareness and training programs – with an emphasis on production of IEC materials in local languages.