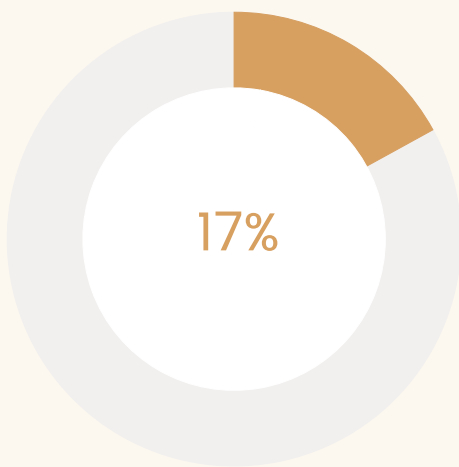


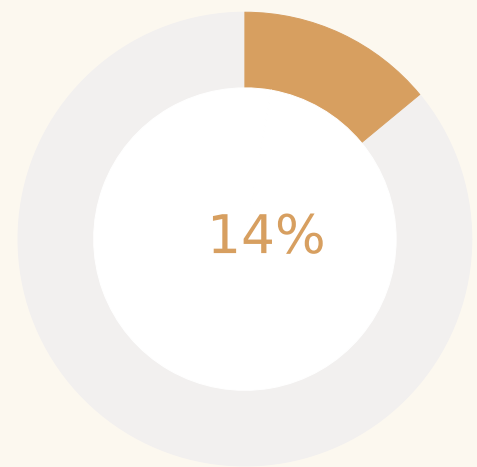
# Business Model Selection for MYLD

**Public Toilet with Energy Recovery Model**



**Feasibility**Poor

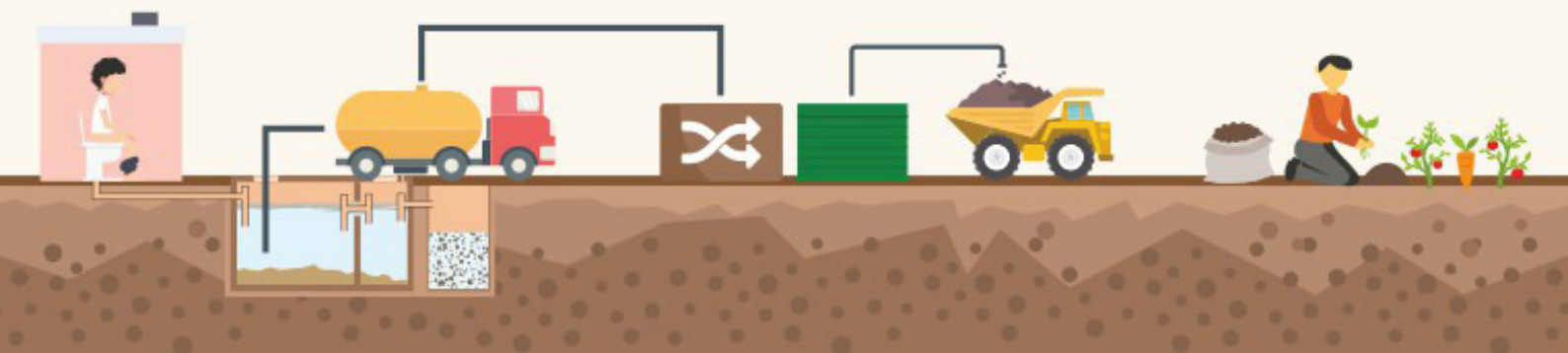
**Call Center Model**



**Feasibility**Poor

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

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



# Business Model Selection Report: MYLD

*26 May 2020*

**Generated By:** Demo User

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## Business Model

Knowledge of potential business model options and evaluation of their suitability for the city is essential for FSM entrepreneurs. Based on the area of interest(s) in the FSM value chain, relevant business model case studies from across the world are presented. This planning module of the FSM Toolbox offers the users with case studies on a range of business models implemented in different parts of the world across the value chain, referenced from IWMI's Resource Recovery and Reuse Series 6 document. It also assists users in evaluating the relevance of these different models to their context to determine the feasibility of implementation.

**Note:** This module should only be used as a pre-feasibility tool and not an end-to-end business solution tool. The main objective of this section is to function as a guiding tool for users who are interested to start a business in the FSM sector and already are familiar with the intricacies of the sector. This tool only showcases the possible business options which have been documented as part of IWMI's report on Business Models for Faecal Sludge Management as part of the Resource Recovery and Reuse Series.

### Basic Information about your city:

- **City Name:** MYLD
- **State:** Tamil Nadu
- **Country:** India
- **Total Population:** 10000

### The business models selected are:

S#	Name of Business Model
1	Public Toilet with Energy Recovery Model
2	Call Center Model

## Feasibility Assessment

Mandatory and optional variables are used to calculate the feasibility score for the business models selected based on their requirement. The presence of the mandatory variables is essential for the successful implementation of the business models. However, the presence of the optional variables supports the ecosystem and is not an essential requirement for the existence of the business models. Both variable types have equal weightage in the feasibility calculation.

### Mandatory Variables for Business Model

Sl.No.	User Interface	Requirement
1	Is there any regulation (rules/guidelines) for the construction of PUBLIC toilets?	YES
	Is there an institution with mandate for provision of land, construction and maintenance of the PUBLIC toilet?	YES
Sl.No.	Collection and Conveyance	Requirement
1	Are there regulations (rules/guidelines) for desludging frequencies?	YES
	Is there an institution with mandate towards enforcing the desludging frequency?	YES
2	Is there a regulation for licensing of desludging operators and workers?	NO
	Is there an institution with mandate for licensing desludging operators and workers?	NO
3	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	NO

	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	YES
4	Is there regulatory provision for setting the desludging tariff?	NO
	Is there an institution with mandate for setting the desludging tariff?	NO
SI.No.	Treatment	Requirement
1	Are there design standards for design, operation and maintenance of treatment facilities?	YES
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	NO
2	Are there standards for effluent disposal?	YES
	Are these standards enforced in the city?	NO
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	NO
3	Are there standards for solids disposal?	NO
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	YES
4	Are there standard operating procedures for the treatment plant?	YES

Is there an institution with mandate to monitor the treatment plant's compliance to standard operating procedures?	NO
--	----

### Optional Variables for Business Model

SI.No.	User Interface	Requirement
1	Is there any regulation (guidelines/rules) for improving the conditions (retrofitting/redevelopment) of sub-standard toilet structures?	NO
	Is there an institution with mandate for improving sub-standard toilets?	NO
2	Are there standards for inspecting the functionality of PUBLIC toilets?	NO
	Is there an institution with mandate for inspection of PUBLIC toilets?	NO
3	Is there regulation for issuing penalties for not constructing proper PUBLIC toilets?	NO
	Is there an institution with mandate towards enforcing the penalties	NO
SI.No.	Containment	Requirement
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	NO
2	Are there regulations for improving improperly built OSS?	NO
	Is there an institution with mandate for improving OSS?	NO

3	Are there regulations (rules/guidelines) for issuing permits for OSS construction?	NO
	Is there an institution with mandate for issuing permits for OSS construction?	NO
	Are there enough resources (financial and human) to verify and issue permits for OSS construction?	NO
Sl.No.	Collection and Conveyance	Requirement
1	Are there vehicle standards for determining the roadworthiness (whether the vehicle can access the roads in terms of elevation - steep climb, road width, etc.) of desludging vehicles?	NO
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	YES
Sl.No.	Reuse - Variables	Requirement
1	Are there regulatory provisions for legalising reuse of treated end products	NO
	Is there an institution with mandate to legalise reuse of treated end products?	NO
2	Are there standards prescribing the quality of reuse by-products for a particular use?	YES
	Is there an institution with mandate to inspect the quality of by-products generated for re-use?	NO
Sl.No.	Other Institutional Variables	Requirement



1	Is there an institution with mandate for FSM related coordination between institutions/stakeholders?	NO
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The feasibility of the business models is grouped as Good, Medium and Poor based on the score obtained.

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

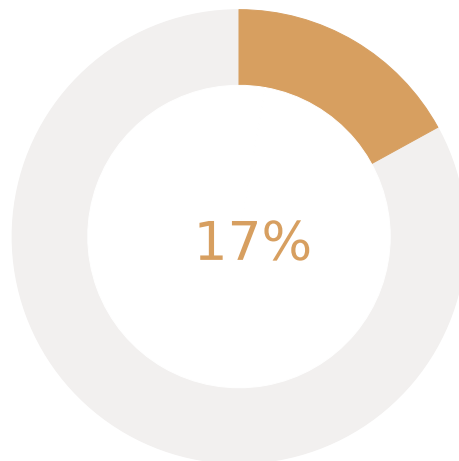
The feasibility of the selected business models are:

(E.g.):

1- 30% (poor)

2- 60% (medium)

## Public Toilet with Energy Recovery Model



**Feasibility Poor**



### Recommendations for implementation of Public Toilet with Energy Recovery Model.

The following table lists the key requirement for successful implementation of this business model.

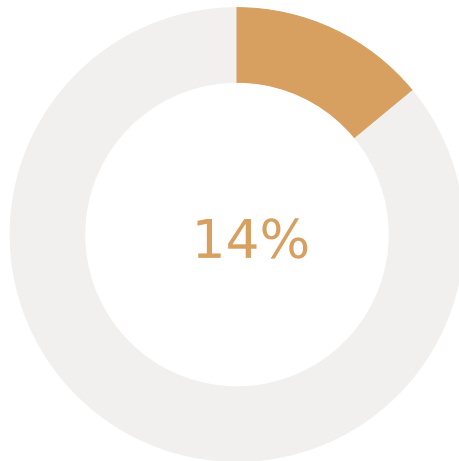
Sl.No.	User Interface	Requirement	Your Answer	Recommendations
1	Is there an institution with mandate for provision of land, construction and maintenance of the PUBLIC toilet?	yes	yes	There are two aspects in which this is mandatory. Firstly, if there is no institution responsible for the implementation and management of public toilets, the implementer of the business model can speak to the local government to initiate a conversation for relevant institutions to take up responsibilities associated with public toilets. Secondly, if there is an institution responsible for public toilets, then the implementer can approach the institution for relevant support (information regarding guidelines, subsidies, etc.).
	If yes, is there	yes	no	A business model involving public toilet

	budgetary allocation for the provision (land availability) of PUBLIC toilets?			services will tend to be more successful if the capital investment and the land is provided by the responsible institution. To evaluate this, it is important to evaluate the financial capacity of the institution.
2	Is there any regulation (guidelines/rules) for improving the conditions (retrofitting/ redevelopment) of sub-standard toilet structures?	yes	no	
	Is there an institution with mandate for improving sub-standard toilets?	yes	no	
3	Are there standards for inspecting the functionality of PUBLIC toilets?	yes	no	
	Is there an institution with mandate for inspection of PUBLIC toilets?	yes	no	
4	Is there regulation for issuing penalties for not constructing proper PUBLIC toilets?	yes	no	
	Is there an institution with mandate towards enforcing the penalties	yes	no	
Sl.No.	Treatment	Requirement	Your Answer	Recommendations
1	Are there design standards for design, operation and maintenance of treatment facilities?	yes	yes	It is important that the public toilet is connected to a containment unit/treatment facility. In this particular business model, the biogas digester acts as a treatment technology and it is important that the treatment facility is built according to prevailing standards

				and maintained accordingly.
	If yes, are these standards followed and enforced in the city?	yes	no	Once these regulatory provisions are in place, it is required that the provisions are enforced and practiced on ground.
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	yes	no	In order for the regulatory provision to be enforced successfully on ground, there needs to be an institution responsible for its implementation.
2	Are these standards enforced in the city?	yes	no	Once these regulatory provisions are in place, it is required that the provisions are enforced and practiced on ground.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	yes	no	In order for the regulatory provision to be enforced successfully on ground, there needs to be an institution responsible for its implementation.
3	Are there standards for solids disposal?	yes	no	For the treatment technology, the bio-solids (faecal sludge) coming out of the treatment infrastructure should be within environmentally sustainable limits.
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	yes	yes	In order for the regulatory provision to be enforced successfully on ground, there needs to be an institution responsible for its implementation.
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	yes	no	In order for the institution to enforce the relevant regulations, it needs to have the required resources (financial and human).
Sl.No.	Reuse - Variables	Requirement	Your Answer	Recommendations
1	Are there regulatory provisions for legalising reuse of treated end products	yes	no	
	Is there an institution	yes	no	

	with mandate to legalise reuse of treated end products?			
2	Are there standards prescribing the quality of reuse by-products for a particular use?	yes	Yes	
	Is there an institution with mandate to inspect the quality of by-products generated for re-use?	yes	no	

## Call Center Model



**Feasibility** **Poor**



### Recommendations for implementation of Call Center Model

The following table lists the key requirement for successful implementation of this business model.

Sl.No.	Containment	Requirement	Your Answer	Recommendations
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	yes	no	
	If No, is there an institution with mandate for inspecting containment unit?	yes	No	
2	Are there regulations for improving improperly built OSS?	yes	no	
	Is there an institution with mandate for improving OSS?	yes	no	

3	Are there regulations (rules/guidelines) for issuing permits for OSS construction?	yes	no	
	Is there an institution with mandate for issuing permits for OSS construction?	yes	no	
	Are there enough resources (financial and human) to verify and issue permits for OSS construction?	yes	no	
Sl.No.	Collection and Conveyance	Requirement	Your Answer	Recommendations
1	Are there regulations (rules/guidelines) for desludging frequencies?	yes	yes	In order to increase demand for desludging, it is required to have regulatory provisions which support the frequent desludging of septic tanks. It is a common occurrence for households to not desludge their septic tanks for more than 5-10 years. In such cases if there is no regulatory provision that requires a higher desludging frequency, the demand is likely to be low, making it hard to build an economic case.
	If yes, is the regulation enforced in the city?	yes	no	Once these regulatory provisions are in place, it is necessary for the provisions to be enforced and practiced to increase the demand for desludging.
2	Is there a regulation for licensing of desludging operators and workers?	yes	no	Depending on the local context, the implementer of the business model/operator should also be aware of regulations related to trade license and have an operating license if required. Also in some cases, it may be mandatory that the operator is registered with the local government and inform them about the service that they are providing. As such it is helpful for the implementer to have knowledge about such regulations

				before initiating the business.
	Is there an institution with mandate for licensing desludging operators and workers?	yes	no	In order for the regulatory provision to be enforced successfully on ground, there needs to be an institution responsible for its implementation. This would enable the implementer of the business model to identify which institution to approach for getting the licenses.
3	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	yes	no	For desludging operators it will be helpful to follow standard operating procedures to be more efficient in their service delivery. Also from the environmental sustainability point of view, the collected sludge should be disposed off into a designated site or a treatment plant.
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	yes	yes	In order for the regulatory provision to be enforced successfully on ground, there needs to be an institution responsible for its implementation. This would enable the implementer of the business model to identify which institution to approach for getting access to such information.
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures?	yes	no	In order for the institution to enforce the relevant regulations, it needs to have the required resources (financial and human).
4	Are there vehicle standards for determining the roadworthiness (whether the vehicle can access the roads in terms of elevation - steep climb, road width, etc.) of desludging vehicles?	yes	no	



	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	yes	Yes	
5	Is there regulatory provision for setting the desludging tariff?	yes	no	In case of this business model, the desludging tariff should be determined by the market competition and the willingness to pay of the HHs as a result of the bidding process. If there is already a regulatory provision for setting the tariff, then the private operators would not be able to set their own tariff via a call centre.
	Is there an institution with mandate for setting the desludging tariff?	yes	no	For the desludging operator to fetch information about the desludging tariffs, it is important to know which institution (if any) is responsible for setting up of desludging tariffaecal sludgeand looking over the desludging services in the coverage area.
Sl.No.	Treatment	Requirement	Your Answer	Recommendations
1	Are there design standards for design, operation and maintenance of treatment facilities?	yes	yes	It is important that the faecal sludge treatment plant is constructed according to appropriate standards and maintained accordingly so that it can treat the faecal sludge collected according to safe standards.
	If yes, are these standards followed and enforced in the city?	yes	no	Once these regulatory provisions are in place, it is required that the provisions are enforced and practiced on ground.
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	yes	no	In order for the regulatory provision to be enforced successfully on ground, there needs to be an institution responsible for its implementation.
2	Are these standards	yes	no	Once these regulatory provisions are in

	enforced in the city?			place, it is required that the provisions are enforced and practiced on ground.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	yes	no	In order for the regulatory provision to be enforced successfully on ground, there needs to be an institution responsible for its implementation.
3	Are there standards for solids disposal?	yes	no	For the treatment technology, the bio-solids (faecal sludge) coming out of the treatment infrastructure should be within environmentally sustainable limits.
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	yes	yes	In order for the regulatory provision to be enforced successfully on ground, there needs to be an institution responsible for its implementation.
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	yes	no	In order for the faecal sludge treatment plant to function properly, there should be a set of standard procedures which needs to be followed.
4	Are there standard operating procedures for the treatment plant?	yes	yes	In order for the faecal sludge treatment plant to function properly, there should be a set of standard procedures which needs to be followed.
	If yes, are these procedures enforced and followed in the city?	yes	no	Once such procedures are in place, it is required that the provisions are enforced and practiced on ground.
	Is there an institution with mandate to monitor the treatment plant's compliance to standard operating procedures?	yes	no	In order for the procedures to be practiced successfully, there needs to be a monitoring institution responsible for its implementation.
Sl.No.	Reuse - Variables	Requirement	Your Answer	Recommendations
1	Are there regulatory provisions for legalising	yes	no	

	reuse of treated end products			
	Is there an institution with mandate to legalise reuse of treated end products?	yes	no	
2	Are there standards prescribing the quality of reuse by-products for a particular use?	yes	Yes	
	Is there an institution with mandate to inspect the quality of by-products generated for re-use?	yes	no	
Sl.No.	Other Institutional Variables	Requirement	Your Answer	Recommendations
1	Is there an institution with mandate for FSM related coordination between institutions/stakeholders?	yes	no	

FSM Toolbox has an extensive repository of knowledge products that are most relevant to your city. Here is a list of select knowledge products for your reference. [Click here to learn more.](#)