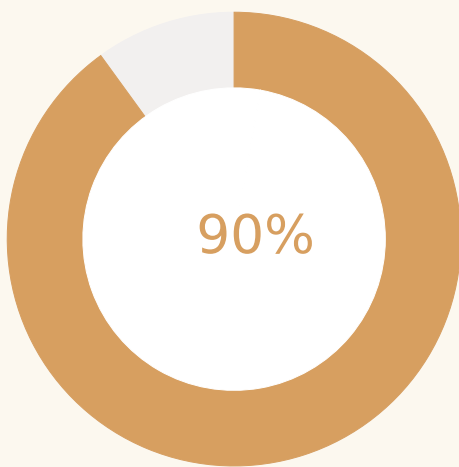


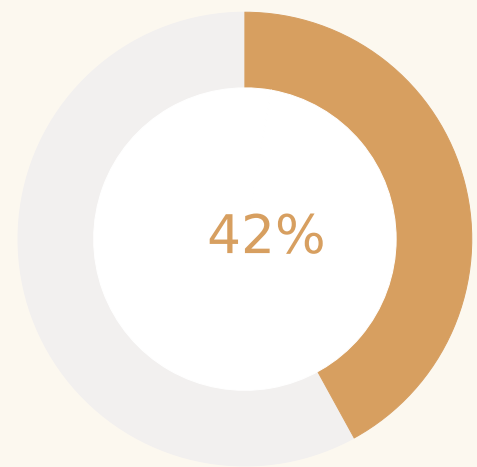
Business Model Selection for Bhubaneswar

Residential- Institutional Biogas model



Feasibility **Good**

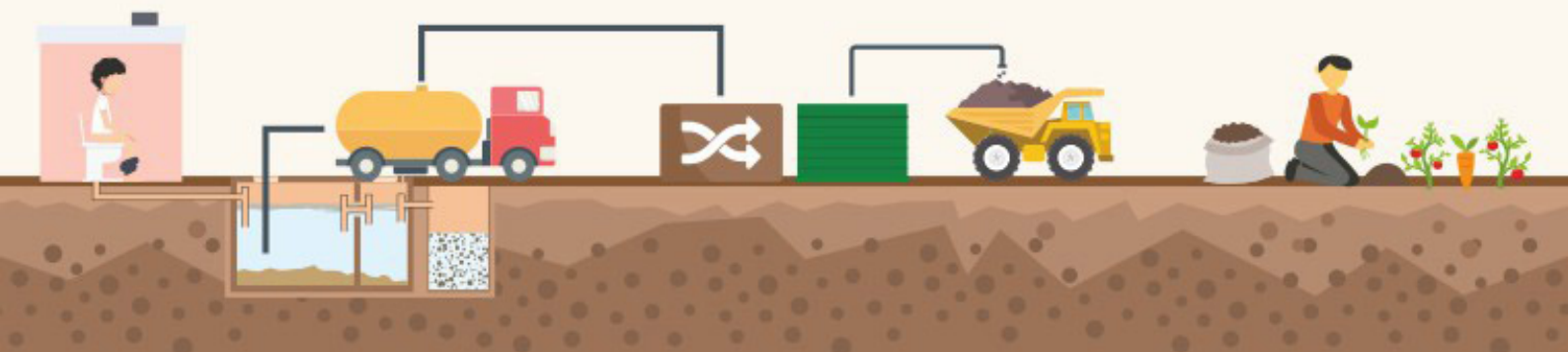
Private Emptying and Transportation Model



Feasibility **Medium**

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: Bhubaneswar

17 Feb 2019

Generated By: Kowshik g

Produced By: Kowshik g, CDD Society, Bhubaneswar, Odisha, India.

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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:** Bhubaneswar
- **State:** Odisha
- **Country:** India
- **Total Population:** 838000

Name of the organisation: CDD Society

The business models selected are:

S#	Name of Business Model
1	Residential-Institutional Biogas model
2	Private Emptying and Transportation 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) - To be fetched from database

(Optional Variables for Business Model) - To be fetched from database

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%)

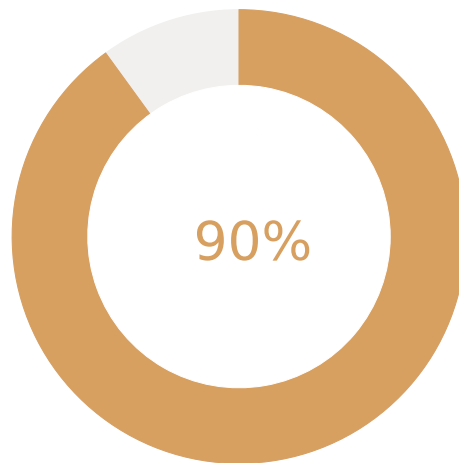
The feasibility of the selected business models are:

(E.g.):

1- 30% (poor)

2- 60% (medium)

Residential-Institutional Biogas model



Feasibility Good

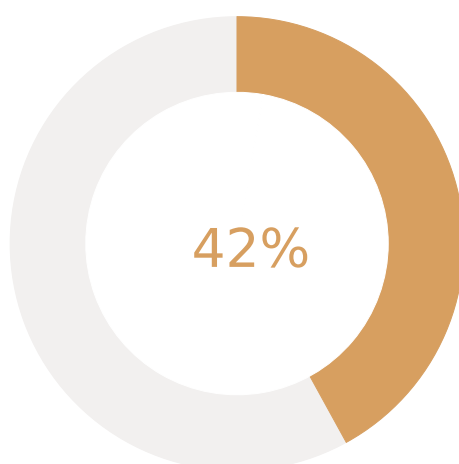


Recommendations for implementation of Residential-Institutional Biogas model.

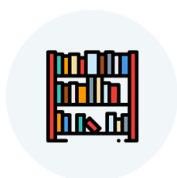
The following table lists the key requirement for successful implementation of this business model.

Sl.No.	Reuse - Variables	Your Answer	Recommendations
1	Is there an institution with mandate to legalise reuse of treated end products?	no	

Private Emptying and Transportation Model



Feasibility **Medium**



Recommendations for implementation of Private Emptying and Transportation Model

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

Sl.No.	Collection and Conveyance	Your Answer	Recommendations
1	Are there regulations (rules/guidelines) for desludging frequencies?	no	
	Is there an institution with mandate towards enforcing the desludging frequency?	no	
2	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	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 of at a designated site or a

			treatment plant.
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	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 access to such information.
3	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?	no	
4	Is there regulatory provision for setting the desludging tariff?	no	In case of this business model, the desludging tariff should be determined as a result of competition in the market and a household's willingness to pay, allowing the private operators to set the tariffs based on market demand. If there is an existing regulatory provision setting the desludging tariff, then private operators would have to follow the tariffs set by the regulatory body. This would lead to operators not making a profit out of the service delivery business, as the private operators work on a profit driven model, while

			the objective for the public body is the welfare of society.
	Is there an institution with mandate for setting the desludging tariff?	no	For the desludging operator to seek information about the desludging tariffs, it is important to know which institution (if any) is responsible for setting up of desludging tariffs and overseeing the desludging services in the coverage area.
5	Is there provision of tipping fee for the desludging operators at the treatment facility?	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.](#)