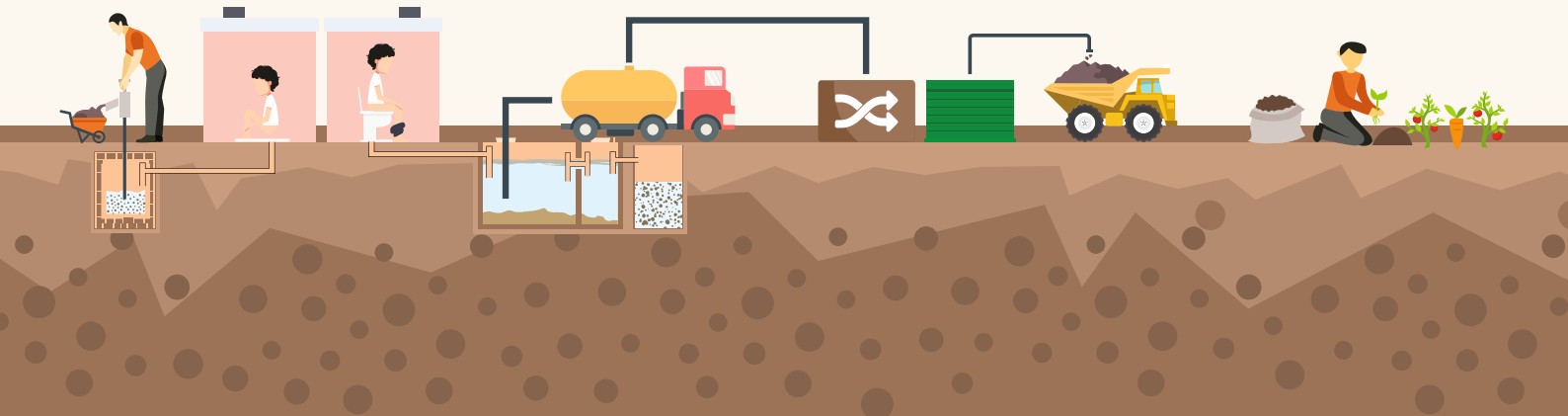


Business Models QUESTIONNAIRE



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Module Description

This tool presents case studies on a range of business models implemented in different parts of the world across the FSM value chain, referenced from IWMI's Resource Recovery and Reuse Series 6 document. It also goes on to assist users evaluate the relevance of these different models to their context.

Note: This section 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 - Business Models for Faecal Sludge Management - as part of the Resource Recovery and Reuse Series.

There is a total of 16 business models suggested in this tool. Each model has a set of mandatory and optional variables to which the user is expected to provide response as Yes / No. The tool evaluates the feasibility of implementation of the business models selected. While the presence of optional variables creates an enabling environment for the implementation of a business model, for the successful implementation of a business model, it is absolutely essential that the mandatory variables are present.

Business Model 1: Public Toilet with Energy Recovery Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Is there any regulation (rules/guidelines) for the construction of public toilets?	User Interface	Mandatory	By public toilets, it is implied that these are to be provided for the floating population /general public in places such as markets, train stations, tourist places, near office complexes, or other public areas	<ol style="list-style-type: none"> 1. Kindly refer to relevant rules and guidelines for the construction of a public toilet. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of a public toilet.

Business Model 1: Public Toilet with Energy Recovery Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
				where there are considerable number of people passing by.	
	If yes, are the regulatory provisions enforced in the city?	User Interface	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced.
	Is there an institution with mandate for provision of land, construction and maintenance of the public toilet?	User Interface	Mandatory		Conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, is there budgetary allocation for the provision (land availability) of public toilets?	User Interface	Mandatory		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.
2	Is there any regulation (guidelines/rules) for improving the conditions (retrofitting/ redevelopment) of sub-standard toilet structures?	User Interface	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines.
	If yes, are these regulatory provisions enforced in the city?	User Interface	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.

Business Model 1: Public Toilet with Energy Recovery Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for improving sub-standard toilets?	User Interface	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there a budgetary allocation or collection of fees for improving sub-standard toilets?	User Interface	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p>
3	Are there standards for inspecting the functionality of public toilets?	User Interface	Optional		<p>1. Kindly refer to documents of the ministry and local government to check for prescribed standards.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards.</p>
	If yes, are these standards enforced in the city?	User Interface	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	Is there an institution with mandate for inspection of public toilets?	User Interface	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and</p>

Business Model 1: Public Toilet with Energy Recovery Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
					responsibilities of relevant institutions.
	If yes, is there resources (financial and human) for inspection of public toilets?	User Interface	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Is there regulation for issuing penalties for not constructing proper public toilets?	User Interface	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for norms specifying penalties for construction of improper public toilets.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify norms specifying penalties for construction of improper public toilets.</p>
	If yes, are these penalties enforced in the city?	User Interface	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the penalties are enforced and followed in the city.
	Is there an institution with a mandate on enforcing the penalties	User Interface	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to</p>

Business Model 1: Public Toilet with Energy Recovery Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					understand the roles and responsibilities of relevant institutions.
	If yes, is there enough resources (financial and human) to enforce this?	User Interface	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Are there design standards for design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.

Business Model 1: Public Toilet with Energy Recovery Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there resources (financial and human) for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standards for effluent disposal?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of effluent into the environment.</p>
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.

Business Model 1: Public Toilet with Energy Recovery Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions</p>
	If yes, are there resources (financial and human) for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faecal matter post treatment.	<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.</p>
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.

Business Model 1: Public Toilet with Energy Recovery Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
8	Are there regulatory provisions for legalizing reuse of treated end products	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the reuse of treated end products</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.</p>
	If yes, are these provisions enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.

Business Model 1: Public Toilet with Energy Recovery Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate to legalese reuse of treated end products?	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for treated faecal sludge?	Reuse	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p>
9	Are there standards prescribing the quality of reuse by-products for a particular use?	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards prescribing the quality for faecal sludge reuse products.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the quality for faecal sludge reuse products.</p>
	If yes, are these standards enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate to inspect the quality of by-products	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector</p>

Business Model 1: Public Toilet with Energy Recovery Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	generated for re-use?				experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions
	If yes, are there enough resources (financial and human) to carry out regular/periodic inspection?	Reuse	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

Business Model 2: Residential-Institutional Biogas Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there design standards for design, operation and maintenance of treatment facilities?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it,

Business Model 2: Residential-Institutional Biogas Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there resources (financial and human) for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed</p>

Business Model 2: Residential–Institutional Biogas Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					by the organogram to the existing staff structure.
2	Are there standards for effluent disposal?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of effluent into the environment.</p>
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions</p>
	If yes, are there resources (financial and human) for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource</p>

Business Model 2: Residential-Institutional Biogas Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
3	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faecal matter post treatment.	<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.</p>
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p>

Business Model 2: Residential-Institutional Biogas Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
4	Are there regulatory provisions for legalizing reuse of treated end products	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the reuse of treated end products</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.</p>
	If yes, are these provisions enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate to legalise reuse of treated end products?	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for	Reuse	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is</p>

Business Model 2: Residential-Institutional Biogas Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	treated faecal sludge?				allocated for the particular task and how much is actually spent.
5	Are there standards prescribing the quality of reuse by-products for a particular use?	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards prescribing the quality for faecal sludge reuse products.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the quality for faecal sludge reuse products.</p>
	If yes, are these standards enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate to inspect the quality of by-products generated for re-use?	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions</p>
	If yes, are there enough resources (financial and human) to carry out regular/periodic inspection?	Reuse	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource</p>

Business Model 2: Residential-Institutional Biogas Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.

Business Model 3: Private Emptying and Transportation Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to</p>

Business Model 3: Private Emptying and Transportation Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					identify standards specifying construction details of an on-site sanitation system.
	If yes, are these standards followed or enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials,

Business Model 3: Private Emptying and Transportation Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there a budgetary allocation for improving (retrofitting/ redevelopment) sub-standard On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for</p>

Business Model 3: Private Emptying and Transportation Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					issuing permits for the construction of an on-site sanitation system.
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as</p>

Business Model 3: Private Emptying and Transportation Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					prescribed by the organogram to the existing staff structure.
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Optional		1. Kindly check the relevant institution's financial budget and check for the budget

Business Model 3: Private Emptying and Transportation Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the</p>

Business Model 3: Private Emptying and Transportation Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.</p>
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 3: Private Emptying and Transportation Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	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?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.</p>
	If yes, are these standards followed in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and

Business Model 3: Private Emptying and Transportation Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there resources (financial and human) for monitoring roadworthiness of desludging vehicles?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
8	Is there regulatory provision for setting the desludging tariff?	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of

Business Model 3: Private Emptying and Transportation Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>desludging service.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 4: Desludging and Transportation Franchise Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containme nt	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.</p>
	If yes, are these standards followed or enforced in the city?	Containme nt	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containme nt	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containme nt	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>

Business Model 4: Desludging and Transportation Franchise Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
	If yes, are these regulations enforced in the city?	Containme nt	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containme nt	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, is there a budgetary allocation for improving (retrofitting/red evelopment) sub-standard On-Site Sanitation System (OSS)?	Containme nt	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containme nt	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.
	If yes, are these regulations enforced in the city?	Containme nt	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site	Containme nt	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.

Business Model 4: Desludging and Transportation Franchise Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
	Sanitation System (OSS) construction?				2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city</p>

Business Model 4: Desludging and Transportation Franchise Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
					to understand the roles and responsibilities of relevant institutions.
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandator y		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandator y		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandator y		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 4: Desludging and Transportation Franchise Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.</p>
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed
	Is there an institution with mandate for monitoring of desludging operator's compliance to	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts</p>

Business Model 4: Desludging and Transportation Franchise Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
	standard operating procedures?				(government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandator y		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
	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?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.</p>
7	If yes, are these standards followed in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city</p>

Business Model 4: Desludging and Transportation Franchise Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
					to understand the roles and responsibilities of relevant institutions.
	If yes, is there resources (financial and human) for monitoring roadworthiness of desludging vehicles?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
8	Is there regulatory provision for setting the desludging tariff?	Collection and Conveyance	Mandator y		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of desludging service.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandator y		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Mandator y		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 4: Desludging and Transportation Franchise Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
9	Is there an institution with mandate for FSM related coordination between institutions/stakeholders?	Other Institutional Variables	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions which works towards strengthening the coordination between various stakeholders involved in the FSM ecosystem. Please note that such institutions can also be NGOs which works towards enhancing coordination between stakeholders.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of the relevant institutions.</p>
	If yes, are there enough resources (financial and human) for FSM related coordination between institutions/stakeholders?	Other Institutional Variables	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

Business Model 5: Non-Profit (Desludging) Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there standards for the	Containment	Optional		1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an

Business Model 5: Non-Profit (Desludging) Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	construction of a particular type of On-Site Sanitation System (OSS)?				<p>on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.</p>
	If yes, are these standards followed or enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>

Business Model 5: Non-Profit (Desludging) Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there a budgetary allocation for improving (retrofitting/redevelopment) sub-standard On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>

Business Model 5: Non-Profit (Desludging) Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>

Business Model 5: Non-Profit (Desludging) Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there enough resources (financial and human information) to enforce this?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
	If yes, is the regulation	Collection and	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city

Business Model 5: Non-Profit (Desludging) Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	enforced in the city?	Conveyance			to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping,	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government</p>

Business Model 5: Non-Profit (Desludging) Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	route planning) for desludging/transportation?				officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

Business Model 5: Non-Profit (Desludging) Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
	procedures?				
7	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?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.</p>
	If yes, are these standards followed in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworth	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 5: Non-Profit (Desludging) Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Business standards?				
	If yes, are there resources (financial and human) for monitoring roadworthiness of desludging vehicles?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
8	Is there regulatory provision for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of desludging service.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 6: Transfer Station Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.</p>
	If yes, are these standards followed or enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 6: Transfer Station Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there a budgetary allocation for improving (retrofitting/ redevelopment) sub-standard On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>

Business Model 6: Transfer Station Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze</p>

Business Model 6: Transfer Station Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	construction?				the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the</p>

Business Model 6: Transfer Station Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes does it have the resources (financial and human) required for licensing desludging operators and	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the</p>

Business Model 6: Transfer Station Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	enforcing it on ground?				institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
6	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.</p>
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed
	Is there an institution with mandate for monitoring of desludging operator's compliance	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to</p>

Business Model 6: Transfer Station Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	to standard operating procedures ?				understand the roles and responsibilities of relevant institutions.
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures ?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	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?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.</p>
	If yes, are these standards followed in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether

Business Model 6: Transfer Station Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					the rules and guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there resources (financial and human) for monitoring roadworthiness of desludging vehicles?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
8	Is there regulatory provision for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of desludging service.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.</p>

Business Model 6: Transfer Station Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
9	Is there an institution with mandate for FSM related coordination between institutions/ stakeholders?	Other Institutional Variables	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions which works towards strengthening the coordination between various stakeholders involved in the FSM ecosystem. Please note that such institutions can also be NGOs which works towards enhancing coordination between stakeholders. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of the relevant institutions.
	If yes, are there enough resources (financial and human) for FSM related coordination between institutions/	Other Institutional Variables	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.

Business Model 6: Transfer Station Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	stakeholders?				

Business Model 8: Emptying and Transportation Licensing Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.</p>
	If yes, are these standards followed or	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the

Business Model 8: Emptying and Transportation Licensing Model

SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	enforced in the city?				standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 8: Emptying and Transportation Licensing Model

SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, is there a budgetary allocation for improving (retrofitting/redevelopment) sub-standard On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 8: Emptying and Transportation Licensing Model

SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 8: Emptying and Transportation Licensing Model

SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 8: Emptying and Transportation Licensing Model

SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.</p>
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed

Business Model 8: Emptying and Transportation Licensing Model

SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures ?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures ?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	Are there vehicle standards for determining the roadworthiness (whether the vehicle can access the roads in terms of elevation - steep climb,	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.</p>

Business Model 8: Emptying and Transportation Licensing Model

SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	road width, etc.) of desludging vehicles?				
	If yes, are these standards followed in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there resources (financial and human) for monitoring roadworthiness of desludging vehicles?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
8	Is there regulatory provision for setting the	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of

Business Model 8: Emptying and Transportation Licensing Model

SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	desludging tariff?				desludging service. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
9	Are there design standards for design, operation and maintenance of treatment facilities?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards). 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing,

Business Model 8: Emptying and Transportation Licensing Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					operating and maintaining the treatment plant.
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there resources (financial and human) for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
10	Are there standards for effluent disposal?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent 2. Alternatively, conduct key informant interviews with sector experts

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					(government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of effluent into the environment.
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions
	If yes, are there resources (financial and human) for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
11	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faec	<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.

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SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
				al matter post treatment .	
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
12	Are there standard operating procedures for the treatment plant?	Treatment	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry

Business Model 8: Emptying and Transportation Licensing Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standard operating procedure - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>
	If yes, are these procedures enforced and followed in the city?	Treatment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the procedures are enforced and followed.
	Is there an institution with mandate to monitor the treatment plant's compliance to standard operating procedures ?	Treatment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there adequate resources (financial and human) for regular inspection of	Treatment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability</p>

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SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	treatment operations and compliance to standard operating procedures ?				for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
13	Are there regulatory provisions for legalizing reuse of treated end products	Reuse	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the reuse of treated end products 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.
	If yes, are these provisions enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate to legalese reuse of treated end products?	Reuse	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, does the institution have enough technical capacity to conduct research on potential reuse	Reuse	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.

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SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	options for treated faecal sludge?				
14	Are there standards prescribing the quality of reuse by-products for a particular use?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards prescribing the quality for faecal sludge reuse products. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the quality for faecal sludge reuse products.
	If yes, are these standards enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate to inspect the quality of by-products generated for re-use?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions
	If yes, are there enough resources (financial and human) to carry out regular/periodic inspection?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as

Business Model 8: Emptying and Transportation Licensing Model

SI. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					prescribed by the organogram to the existing staff structure.
15	Is there an institution with mandate for FSM related coordination between institutions/ stakeholders?	Other Institutional Variables	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions which works towards strengthening the coordination between various stakeholders involved in the FSM ecosystem. Please note that such institutions can also be NGOs which works towards enhancing coordination between stakeholders.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of the relevant institutions.</p>
	If yes, are there enough resources (financial and human) for FSM related coordination between institutions/ stakeholders?	Other Institutional Variables	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to</p>

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					identify standards specifying construction details of an on-site sanitation system.
	If yes, are these standards followed or enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of</p>

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					relevant institutions.
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there a budgetary allocation for improving (retrofitting/redevelopment) sub-standard On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits	Containment	Optional		1. Kindly refer to documents published by the

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	for On-Site Sanitation System (OSS) construction?				<p>ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource</p>

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous</p>

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant</p>

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					rules and guidelines for licensing of desludging operators and workers.
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of</p>

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					relevant institutions.
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards – which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.</p>
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	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?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO</p>

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.
	If yes, are these standards followed in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and</p>

Business Model 9: Call Centre Model (Desludging)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					responsibilities of relevant institutions.
	If yes, is there resources (financial and human) for monitoring roadworthiness of desludging vehicles?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
8	Is there regulatory provision for setting the desludging tariff?	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>guidelines for setting the tariff for provision of desludging service.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
9	Are there design standards for design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standards - which may follow the</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		<p>Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.</p>
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there resources (financial and human) for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
10	Are there standards for effluent disposal?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of effluent into the environment.</p>
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions</p>
	<p>If yes, are there resources (financial and human) for monitoring compliance to effluent disposal standards?</p>	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					the organogram to the existing staff structure.
11	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faecal matter post treatment.	1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	Treatment	Mandatory		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					number of staffs as prescribed by the organogram to the existing staff structure.
12	Are there standard operating procedures for the treatment plant?	Treatment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standard operating procedure - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					(government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.
	If yes, are these procedures enforced and followed in the city?	Treatment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the procedures are enforced and followed.
	Is there an institution with mandate to monitor the treatment plant's compliance to standard operating procedures?	Treatment	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					roles and responsibilities of relevant institutions.
	If yes, are there adequate resources (financial and human) for regular inspection of treatment operations and compliance to standard operating procedures?	Treatment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
13	Are there regulatory provisions for legalizing reuse of treated end products	Reuse	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					reuse of treated end products 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.
	If yes, are these provisions enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate to legalese reuse of treated end products?	Reuse	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for treated faecal sludge?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.
14	Are there standards prescribing the quality of reuse by-products for a particular use?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards prescribing the quality for faecal sludge reuse products. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					workers and activists, etc.) to identify relevant standards prescribing the quality for faecal sludge reuse products.
	If yes, are these standards enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate to inspect the quality of by-products generated for re-use?	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, are there enough resources (financial and human) to carry out regular/periodic inspection?	Reuse	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
15	Is there an institution with mandate for FSM related coordination between institutions/stakeholders?	Other Institutional Variables	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions which works towards strengthening the coordination between various</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>stakeholders involved in the FSM ecosystem. Please note that such institutions can also be NGOs which works towards enhancing coordination between stakeholders.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of the relevant institutions.</p>
	<p>If yes, are there enough resources (financial and human) for FSM related coordination between institutions/stakeholders?</p>	<p>Other Institutional Variables</p>	<p>Optional</p>		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					as prescribed by the organogram to the existing staff structure.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					<p>manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.</p>
	If yes, are these standards followed or enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		1. Kindly refer to documents published by the ministry and local government to

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					<p>check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					on-site sanitation system.
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there a budgetary allocation for improving (retrofitting/redevelopment)	Containment	Optional		1. Kindly check the relevant institution's financial budget

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
	sub-standard On-Site Sanitation System (OSS)?				<p>and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					<p>for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					rules and guidelines for desludging of on-site sanitation systems.
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and</p>

Business Model 10: Scheduled Desludging Sanitation Tax Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					workers. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
6	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for</p>

Business Model 10: Scheduled Desludging Sanitation Tax Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					desludging and transportation of faecal sludge.
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	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?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p>

Business Model 10: Scheduled Desludging Sanitation Tax Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.
	If yes, are these standards followed in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	Collection and Conveyance	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, is there resources (financial and human) for monitoring roadworthiness of desludging vehicles?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
8	Is there regulatory provision for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of desludging service.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					<p>government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
9	Are there design standards for design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					and operating it, may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards). 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there resources (financial and human) for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by

Business Model 10: Scheduled Desludging Sanitation Tax Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					the organogram to the existing staff structure.
10	Are there standards for effluent disposal?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of effluent into the environment.
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					<p>check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions</p>
	<p>If yes, are there resources (financial and human) for monitoring compliance to effluent disposal standards?</p>	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution.</p>

Business Model 10: Scheduled Desludging Sanitation Tax Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
11	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faecal matter post treatment.	1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					<p>and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	<p>If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?</p>	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the</p>

Business Model 10: Scheduled Desludging Sanitation Tax Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					positions and the number of staffs as prescribed by the organogram to the existing staff structure.
12	Are there standard operating procedures for the treatment plant?	Treatment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standard operating procedure - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.
	If yes, are these procedures enforced and followed in the city?	Treatment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the procedures are enforced and followed.
	Is there an institution with mandate to monitor the treatment plant's compliance to standard operating procedures?	Treatment	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					responsibilities of relevant institutions.
	If yes, are there adequate resources (financial and human) for regular inspection of treatment operations and compliance to standard operating procedures?	Treatment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
13	Are there regulatory provisions for legalizing reuse of treated end products	Reuse	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					reuse of treated end products 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.
	If yes, are these provisions enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate to legalese reuse of treated end products?	Reuse	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for treated faecal sludge?	Reuse	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.
14	Are there standards prescribing the quality of reuse by-products for a particular use?	Reuse	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant standards prescribing the quality for faecal sludge reuse products. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					prescribing the quality for faecal sludge reuse products.
	If yes, are these standards enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate to inspect the quality of by-products generated for re-use?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions
	If yes, are there enough resources (financial and human) to carry out regular/periodic inspection?	Reuse	Optional		1. Kindly check the relevant institution's financial budget and check for the

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					<p>budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
15	Is there an institution with mandate for FSM related coordination between institutions/stakeholders?	Other Institutional Variables	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions which works towards strengthening the coordination between various stakeholders involved in the FSM ecosystem. Please note that such</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hint	Data Collection Protocol
					<p>institutions can also be NGOs which works towards enhancing coordination between stakeholders.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of the relevant institutions.</p>
	<p>If yes, are there enough resources (financial and human) for FSM related coordination between institutions/stakeholders?</p>	<p>Other Institutional Variables</p>	<p>Optional</p>		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.</p>
	If yes, are these standards followed or enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there a budgetary allocation for improving (retrofitting/ redevelopment) sub-standard On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>
3	Are there regulations (rules/guidelines) for	Containment	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	issuing permits for On-Site Sanitation System (OSS) construction?				<p>sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Are there regulations (rules/guide	Collection and	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	lines) for desludging frequencies ?	Conveyance			of on-site sanitation systems 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
5	Is there a regulation for licensing of desludging operators	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers. 2. Alternatively, conduct key informant

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	and workers?				interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone/time of operations, accidents,	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	spills, proper disposal, record keeping, route planning) for desludging/transportation?				<p>a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.</p>
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	procedures ?				prescribed by the organogram to the existing staff structure.
7	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?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.</p>
	If yes, are these standards followed in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there resources	Collection and	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	(financial and human) for monitoring roadworthiness of desludging vehicles?	Conveyance			<p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
8	Is there regulatory provision for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of desludging service.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
9	Is there provision of tipping fee for the desludging	Collection and Conveyance	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines which prescribe the provision of tipping fee to desludging operators for disposing off the faecal sludge

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	operators at the treatment facility?				<p>at the treatment plant.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines which prescribe the provision of tipping fee to desludging operators for disposing off the faecal sludge at the treatment plant.</p>
10	Are there design standards for design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring design, operation and maintenance of	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	treatment facilities?				
	If yes, are there resources (financial and human) for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
11	Are there standards for effluent disposal?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of effluent into the environment.
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, are there resources (financial and human) for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
12	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faecal matter post treatment.	<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring compliance to solids	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	disposal standards?				
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
13	Are there standard operating procedures for the treatment plant?	Treatment	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standard operating procedure - which may follow the government prescribed standards, but is not limited to the government standards). 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.
	If yes, are these procedures enforced and followed in the city?	Treatment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the procedures are enforced and followed.

Business Model 11: Incentivised Disposal Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate to monitor the treatment plant's compliance to standard operating procedures ?	Treatment	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there adequate resources (financial and human) for regular inspection of treatment operations and compliance to standard operating procedures ?	Treatment	Optional		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
14	Are there regulatory provisions for legalizing reuse of treated end products	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the reuse of treated end products 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.
	If yes, are these provisions enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.

Business Model 11: Incentivised Disposal Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate to legalese reuse of treated end products?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for treated faecal sludge?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.
15	Are there standards prescribing the quality of reuse by-products for a particular use?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards prescribing the quality for faecal sludge reuse products. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the quality for faecal sludge reuse products.
	If yes, are these standards enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate to inspect the	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant

Business Model 11: Incentivised Disposal Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	quality of by-products generated for re-use?				interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions
	If yes, are there enough resources (financial and human) to carry out regular/periodic inspection?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
16	Is there an institution with mandate for FSM related coordination between institutions/stakeholders?	Other Institutional Variables	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions which works towards strengthening the coordination between various stakeholders involved in the FSM ecosystem. Please note that such institutions can also be NGOs which works towards enhancing coordination between stakeholders. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of the relevant institutions.
	If yes, are there enough resources (financial and human) for FSM related coordination between institutions/	Other Institutional Variables	Optional		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.

Business Model 11: Incentivised Disposal Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	stakeholders?				

Business Model 12: Full Private Model (Entire Service Chain)					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.</p>
	If yes, are these standards followed or	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	enforced in the city?				standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, is there a budgetary allocation for improving (retrofitting/redevelopment) sub-standard On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.</p>
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures ?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures ?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	Are there vehicle standards for determining the roadworthiness (whether the vehicle can access the roads in terms of elevation - steep climb,	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.</p>

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	road width, etc.) of desludging vehicles?				
	If yes, are these standards followed in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there resources (financial and human) for monitoring roadworthiness of desludging vehicles?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
8	Are there design standards for design,	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	operation and maintenance of treatment facilities?				<p>treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there resources (financial and human) for monitoring	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how</p>

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	design, operation and maintenance of treatment facilities?				much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
9	Are there standards for effluent disposal?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of effluent into the environment.
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions
	If yes, are there resources (financial and human) for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
10	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faecal matter post treatment.	<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there adequate resources (financial and human) for monitoring	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	compliance to solid disposal standards?				3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
11	Are there standard operating procedures for the treatment plant?	Treatment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standard operating procedure - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>
	If yes, are these procedures enforced and followed in the city?	Treatment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the procedures are enforced and followed.
	Is there an institution with mandate to monitor the treatment plant's compliance	Treatment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to</p>

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	to standard operating procedures ?				understand the roles and responsibilities of relevant institutions.
	If yes, are there adequate resources (financial and human) for regular inspection of treatment operations and compliance to standard operating procedures ?	Treatment	Optional		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
12	Are there regulatory provisions for legalizing reuse of treated end products	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the reuse of treated end products 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.
	If yes, are these provisions enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate to legalise reuse of	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO

Business Model 12: Full Private Model (Entire Service Chain)

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	treated end products?				workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for treated faecal sludge?	Reuse	Optional		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.
13	Is there an institution with mandate for FSM related coordination between institutions/ stakeholders?	Other Institutional Variables	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions which works towards strengthening the coordination between various stakeholders involved in the FSM ecosystem. Please note that such institutions can also be NGOs which works towards enhancing coordination between stakeholders. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of the relevant institutions.
	If yes, are there enough resources (financial and human) for FSM related coordination between institutions/	Other Institutional Variables	Optional		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.

Business Model 12: Full Private Model (Entire Service Chain)					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	stakeholders?				

Business Model 13: Farmer Truck Operator Partnership Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards but is not limited to the government

Business Model 13: Farmer Truck Operator Partnership Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					standards). 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.
	If yes, are these standards followed or enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.

Business Model 13: Farmer Truck Operator Partnership Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, is there a budgetary allocation for improving (retrofitting/redevelopment) sub-standard On-Site Sanitation System (OSS)?	Containment	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to

Business Model 13: Farmer Truck Operator Partnership Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					understand how much is allocated for this particular task and how much is actually spent.
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and</p>

Business Model 13: Farmer Truck Operator Partnership Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules</p>

Business Model 13: Farmer Truck Operator Partnership Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					and guidelines for desludging of on-site sanitation systems.
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the</p>

Business Model 13: Farmer Truck Operator Partnership Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively,</p>

Business Model 13: Farmer Truck Operator Partnership Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there regulatory provisions for legalizing reuse of treated end products	Reuse	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the reuse of treated end products</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government</p>

Business Model 13: Farmer Truck Operator Partnership Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.
	If yes, are these provisions enforced in the city?	Reuse	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate to legislate reuse of treated end products?	Reuse	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for treated faecal sludge?	Reuse	Mandatory		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
7	Are there standards prescribing the quality of reuse by-products for a particular use?	Reuse	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant standards prescribing the quality for faecal sludge reuse products. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the quality for faecal sludge reuse products.
	If yes, are these standards enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate to inspect the quality of by-products generated for re-use?	Reuse	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions
	If yes, are there enough resources (financial and human) to carry out regular/periodic inspection?	Reuse	Optional		1. Kindly check the relevant institution's financial budget and check for the budget

Business Model 13: Farmer Truck Operator Partnership Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

Business Model 14: Co-composting Town Cluster Model					
Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards but is not</p>

Business Model 14: Co-composting Town Cluster Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					<p>limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.</p>
	If yes, are these standards followed or enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.

Business Model 14: Co-composting Town Cluster Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there a budgetary allocation for improving (retrofitting/ redevelopment) sub-standard On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.

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Sl. No.	Questions	Value Chain	Mandatory/Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction ?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction ?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation ?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					operating procedures for desludging and transportation of faecal sludge.
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	Are there vehicle standards for determining the roadworthiness?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p> <p>2. Alternatively, conduct key informant</p>

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Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
	ss (whether the vehicle can access the roads in terms of elevation - steep climb, road width, etc.) of desludging vehicles?				interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.
	If yes, are these standards followed in the city?	Collecti on and Convey ance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthine ss standards?	Collecti on and Convey ance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there resources (financial and human) for monitoring roadworthine ss of desludging vehicles?	Collecti on and Convey ance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
8	Is there regulatory provision for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of desludging service.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
9	Are there design standards for design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					for designing, operating and maintaining the treatment plant.
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there resources (financial and human) for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
10	Are there standards for effluent disposal?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards

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Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					prescribing the disposal of effluent into the environment.
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions
	If yes, are there resources (financial and human) for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
11	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faecal matter	<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
				post treatment	
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	Treatment	Mandatory		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
12	Are there standard operating procedures for the treatment plant?	Treatment	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standard operating

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					procedure - which may follow the government prescribed standards, but is not limited to the government standards). 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.
	If yes, are these procedures enforced and followed in the city?	Treatment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the procedures are enforced and followed.
	Is there an institution with mandate to monitor the treatment plant's compliance to standard operating procedures?	Treatment	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there adequate resources (financial and human) for regular inspection of treatment operations and compliance to standard operating procedures?	Treatment	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
13	Are there regulatory provisions for	Reuse	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the reuse of

Business Model 14: Co-composting Town Cluster Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	legalizing reuse of treated end products				treated end products 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.
	If yes, are these provisions enforced in the city?	Reuse	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate to legalize reuse of treated end products?	Reuse	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for treated faecal sludge?	Reuse	Mandatory		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.
14	Are there standards prescribing the quality of reuse by-products for a particular use?	Reuse	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant standards prescribing the quality for faecal sludge reuse products. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards

Business Model 14: Co-composting Town Cluster Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					prescribing the quality for faecal sludge reuse products.
	If yes, are these standards enforced in the city?	Reuse	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate to inspect the quality of by-products generated for re-use?	Reuse	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions
	If yes, are there enough resources (financial and human) to carry out regular/periodic inspection?	Reuse	Mandatory		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
15	Is there an institution with mandate for FSM related coordination between institutions/stakeholders?	Other Institutional Variables	Mandatory		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions which works towards strengthening the coordination between various stakeholders involved in the FSM ecosystem. Please note that such institutions can also be NGOs which works towards enhancing coordination between stakeholders. 2. Alternatively, conduct key informant

Business Model 14: Co-composting Town Cluster Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of the relevant institutions.
	If yes, are there enough resources (financial and human) for FSM related coordination between institutions/stakeholders?	Other Institutional Variables	Optional		<ol style="list-style-type: none"> 1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		<ol style="list-style-type: none"> 1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards but is not limited to the government standards). 2. Alternatively, conduct key informant

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
					interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.
	If yes, are these standards followed or enforced in the city?	Contai nment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Contai nment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Contai nment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Contai nment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-	Contai nment	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
	Site Sanitation System (OSS)?				2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, is there a budgetary allocation for improving (retrofitting/re development) sub-standard On-Site Sanitation System (OSS)?	Contai nment	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.
	Are there regulations (rules/guidelin es) for issuing permits for On-Site Sanitation System (OSS) construction?	Contai nment	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.
3	If yes, are these regulations enforced in the city?	Contai nment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction?	Contai nment	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					roles and responsibilities of relevant institutions.
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the</p>

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					roles and responsibilities of relevant institutions.
	If yes, are there enough resources (financial and human) information) to enforce this?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the</p>

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					roles and responsibilities of relevant institutions.
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone/time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.</p>
	If yes, are these standards enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	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?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards determining the roadworthiness of desludging vehicles.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards determining the roadworthiness of desludging vehicles.</p>

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	If yes, are these standards followed in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for monitoring whether the desludging vehicles meet the roadworthiness standards?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there resources (financial and human) for monitoring roadworthiness of desludging vehicles?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
8	Is there regulatory provision for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of desludging service.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.</p>

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
9	Are there design standards for design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there resources (financial and human) for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
10	Are there standards for effluent disposal?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of effluent into the environment.</p>
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions</p>
	If yes, are there resources (financial and human) for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
11	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faecal matter post treatment.	<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.</p>

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring compliance to solids disposal standards?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
12	Are there standard operating procedures for the treatment plant?	Treatment	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standard operating procedure - which may follow the government prescribed standards, but is

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					not limited to the government standards). 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.
	If yes, are these procedures enforced and followed in the city?	Treatment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the procedures are enforced and followed.
	Is there an institution with mandate to monitor the treatment plant's compliance to standard operating procedures?	Treatment	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions. 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there adequate resources (financial and human) for regular inspection of treatment operations and compliance to standard operating procedures?	Treatment	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads. 2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent. 3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
13	Are there regulatory provisions for	Reuse	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the reuse of

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	legalizing reuse of treated end products				<p>treated end products</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.</p>
	If yes, are these provisions enforced in the city?	Reuse	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate to legalize reuse of treated end products?	Reuse	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for treated faecal sludge?	Reuse	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p>
14	Are there standards prescribing the quality of reuse by-products for a particular use?	Reuse	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards prescribing the quality for faecal sludge reuse products.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards</p>

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					prescribing the quality for faecal sludge reuse products.
	If yes, are these standards enforced in the city?	Reuse	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate to inspect the quality of by-products generated for re-use?	Reuse	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions</p>
	If yes, are there enough resources (financial and human) to carry out regular/periodic inspection?	Reuse	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
15	Is there an institution with mandate for FSM related coordination between institutions/stakeholders?	Other Institutional Variables	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions which works towards strengthening the coordination between various stakeholders involved in the FSM ecosystem. Please note that such institutions can also be NGOs which works

Business Model 15: Co-composting Pull Push Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					<p>towards enhancing coordination between stakeholders.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of the relevant institutions.</p>
	If yes, are there enough resources (financial and human) for FSM related coordination between institutions/stakeholders?	Other Institutional Variables	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

Business Model 16: Non-Movable UDDT Model

Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the</p>

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Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					<p>government prescribed standards but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.</p>
	If yes, are these standards followed or enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
2	Are there regulations for improving improperly built On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.

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SI. No.	Questions	Value Chain	Mandato ry/ Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Contai nment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there a budgetary allocation for improving (retrofitting/re development) sub-standard On-Site Sanitation System (OSS)?	Contai nment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>
3	Are there regulations (rules/guidelin es) for issuing permits for On-Site Sanitation System (OSS) construction?	Contai nment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Contai nment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site	Contai nment	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.

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SI. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	Sanitation System (OSS) construction?				2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	Are there enough resources (financial and human) to verify and issue permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant</p>

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SI. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	desludging frequency?				interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, is there enough resources (financial and human) and information) to enforce this?	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
5	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government</p>

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Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes does it have the resources (financial and human) required for licensing desludging operators and enforcing it on ground?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone /time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.</p>
	If yes, are these standards enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed

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Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	Is there regulatory provision for setting the desludging tariff?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of desludging service.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.

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SI. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
8	Are there design standards for design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring design, operation and maintenance	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government</p>

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SI. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	of treatment facilities?				officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
	If yes, are there resources (financial and human) for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
9	Are there standards for effluent disposal?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of effluent into the environment.</p>
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the</p>

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Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
					roles and responsibilities of relevant institutions
	If yes, are there resources (financial and human) for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
10	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faecal matter post treatment.	<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.</p>
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	monitoring compliance to solids disposal standards?				<p>institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
11	Are there standard operating procedures for the treatment plant?	Treatment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standard operating procedure - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>

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SI. No.	Questions	Value Chain	Mandato ry / Optional	Hints	Data Collection Protocol
	If yes, are these procedures enforced and followed in the city?	Treat ment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the procedures are enforced and followed.
	Is there an institution with mandate to monitor the treatment plant's compliance to standard operating procedures?	Treat ment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there adequate resources (financial and human) for regular inspection of treatment operations and compliance to standard operating procedures?	Treat ment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
12	Are there regulatory provisions for legalizing reuse of treated end products	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the reuse of treated end products</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	If yes, are these provisions enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate to legalese reuse of treated end products?	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for treated faecal sludge?	Reuse	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
1	Are there standards for the construction of a particular type of On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for standards specifying construction details of an on-site sanitation system. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company manufacturing pre-fabricated septic tanks will have their own specific standards - which may follow the government prescribed standards but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify standards specifying construction details of an on-site sanitation system.</p>
	If yes, are these standards followed or enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are enforced and followed in the city.
	If no, is there an institution with mandate for inspecting containment unit?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
2	Are there regulation	Containment	Optional		1. Kindly refer to documents published by the ministry and local government to check for

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	Is there a regulation for improving improperly built On-Site Sanitation System (OSS)?				<p>1. Identify relevant rules and guidelines for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for improving On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there a budgetary allocation for improving (retrofitting/redevelopment) sub-standard On-Site Sanitation System (OSS)?	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for this particular task and how much is actually spent.</p>

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Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
3	Are there regulations (rules/guidelines) for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for issuing permits for the construction of an on-site sanitation system.</p>
	If yes, are these regulations enforced in the city?	Containment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate for issuing permits for On-Site Sanitation System (OSS) construction?	Containment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	Are there enough resources (financial and human) to verify and issue permits	Containment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	for On-Site Sanitation System (OSS) construction?				3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
4	Are there regulations (rules/guidelines) for desludging frequencies?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for desludging of on-site sanitation systems</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for desludging of on-site sanitation systems.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate towards enforcing the desludging frequency?	Collection and Conveyance	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there enough resources (financial and	Collection and Conveyance	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	human) and information) to enforce this?				<p>allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
5	Is there a regulation for licensing of desludging operators and workers?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for licensing of desludging operators and workers.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for licensing of desludging operators and workers.</p>
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for licensing desludging operators and workers?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes does it have the resources	Collection and	Optional		1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	(financial and human) required for licensing desludging operators and enforcing it on ground?	Conveyance			<p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
6	Are there standard operating procedures (zone /time of operations, accidents, spills, proper disposal, record keeping, route planning) for desludging/transportation?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standard operating procedures for desludging and transportation of faecal sludge. To be noted that standards may also be developed privately by companies or by the industry sector. Wherever required, kindly also refer to sector specific standards (for e.g. a private desludging operator may have their own specific standards - which may follow the government prescribed standards but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standard operating procedures for desludging and transportation of faecal sludge.</p>
	If yes, are these standards enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed

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Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	Is there an institution with mandate for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, is there enough resources (financial and human) for monitoring of desludging operator's compliance to standard operating procedures?	Collection and Conveyance	Optional		<p>1. Kindly check the relevant institution's financial budget and check the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
7	Is there regulatory provision for setting the	Collection and Conveyance	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for setting the tariff for provision of desludging service.</p>

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	desludging tariff?				2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for setting the tariff for provision of desludging service.
	If yes, is the regulation enforced in the city?	Collection and Conveyance	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced and followed.
	Is there an institution with mandate for setting the desludging tariff?	Collection and Conveyance	Optional		1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.
8	Are there design standards for design, operation and maintenance of treatment facilities?	Treatment	Mandatory		1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standards - which may follow the government prescribed standards, but is not limited to the government standards). 2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
					designing, operating and maintaining the treatment plant.
	If yes, are these standards followed and enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there resources (financial and human) for monitoring design, operation and maintenance of treatment facilities?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>

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Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
9	Are there standards for effluent disposal?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of effluent</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of effluent into the environment.</p>
	Are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with the mandate for monitoring compliance to effluent disposal standards?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions</p>
	If yes, are there resources (financial and human) for monitoring compliance to effluent	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of</p>

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Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	disposal standards ?				the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.
10	Are there standards for solids disposal?	Treatment	Mandatory	Here solids or bio-solids refer to dried faecal matter post treatment .	<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for disposal of solids</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards prescribing the disposal of solids.</p>
	If yes, are these standards enforced in the city?	Treatment	Mandatory		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the standards are followed or not.
	Is there an institution with mandate for monitoring compliance to solids disposal standards ?	Treatment	Mandatory		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>

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Sl. No.	Questions	Value Chain	Mandatory/ Optional	Hints	Data Collection Protocol
	If yes, are there adequate resources (financial and human) for monitoring compliance to solid disposal standards?	Treatment	Mandatory		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
11	Are there standard operating procedures for the treatment plant?	Treatment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for relevant standards for the design, operation and maintenance of treatment plant. To be noted that standards may also be developed privately by companies or by the industry sector. So wherever required, kindly also refer to sector specific standards (for e.g. a private company constructing a treatment plant and operating it, may have their own specific standard operating procedure - which may follow the government prescribed standards, but is not limited to the government standards).</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant standards for designing, operating and maintaining the treatment plant.</p>
	If yes, are these procedures enforced?	Treatment	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	and followed in the city?				to identify whether the procedures are enforced and followed.
	Is there an institution with mandate to monitor the treatment plant's compliance to standard operating procedures?	Treatment	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions.</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, are there adequate resources (financial and human) for regular inspection of treatment operations and compliance to standard operating procedures?	Treatment	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p> <p>3. With respect to understanding the institution's human resource availability for the particular task, kindly check the organogram of the institution. Analyze the positions and the number of staffs as prescribed by the organogram to the existing staff structure.</p>
12	Are there regulatory provisions	Reuse	Optional		1. Kindly refer to documents published by the ministry and local government to check for relevant rules and guidelines for the reuse of

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Sl. No.	Questions	Value Chain	Mandatory / Optional	Hints	Data Collection Protocol
	for legalizing reuse of treated end products				<p>treated end products</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) to identify relevant rules and guidelines for the reuse of treated end products.</p>
	If yes, are these provisions enforced in the city?	Reuse	Optional		Kindly conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) within the city to identify whether the rules and guidelines are enforced or not.
	Is there an institution with mandate to legalise reuse of treated end products?	Reuse	Optional		<p>1. Kindly refer to documents published by the ministry and local government to check for roles and responsibilities of relevant institutions</p> <p>2. Alternatively, conduct key informant interviews with sector experts (government officials, engineers, NGO workers and activists, etc.) in the city to understand the roles and responsibilities of relevant institutions.</p>
	If yes, does the institution have enough technical capacity to conduct research on potential reuse options for treated faecal sludge?	Reuse	Optional		<p>1. Kindly check the relevant institution's financial budget and check for the budget allocated under the relevant budget heads.</p> <p>2. Also check the budget allocation for the previous years to understand how much is allocated for the particular task and how much is actually spent.</p>

