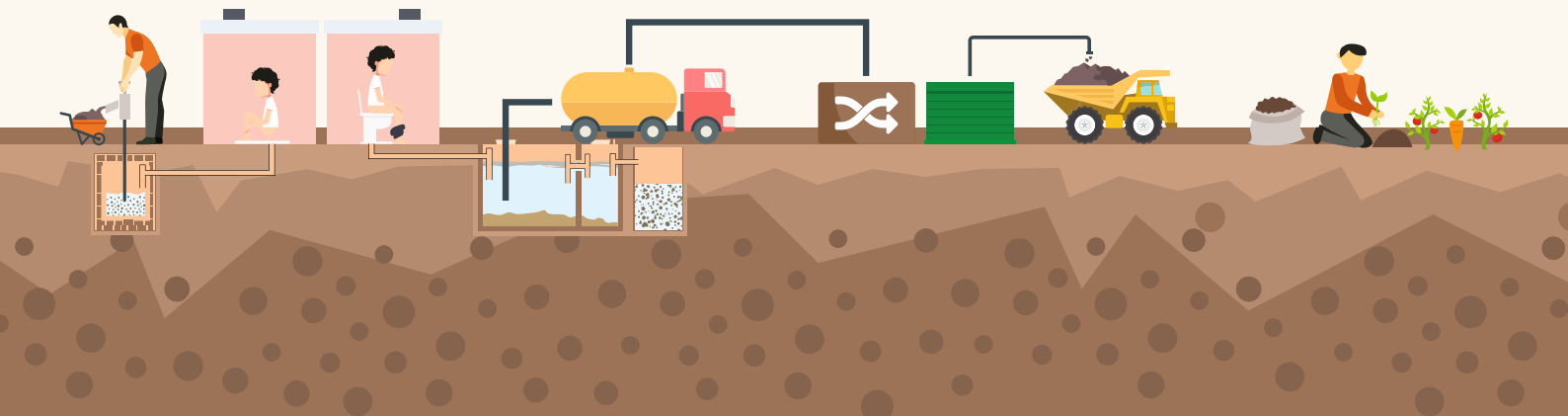


# FSM Pro Planner QUESTIONNAIRE



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## **Module Description**

The infrastructure planning toolkit assists users develop a comprehensive geo-spatial infrastructure plan for improvement across all stages of the FSM service chain – containment, emptying, transportation and treatment. There is a total of 6 areas where the tool offers assistance. The tool allows for modular selection, where the user may choose one or more areas of support.

It is to be noted that some of the modules that are available individually as part of rapid planner is subsumed under other broad heads in this module. For example: City that conducts geospatial property level planning for household / community toilet construction can always cross subsidize the toilet interface and onsite sanitation system planning requirements within the same survey.

## **Rapid Planner – Topics**

- RP1 Household Toilet / Community Toilet Construction
- RP2 Public toilet construction
- RP3 Total FS generation
- RP4 Vehicle procurement
- RP5 Local Treatment Infrastructure
  - RP5A. Treatment Plant Size
  - RP5B. Treatment site location
  - RP5C. Treatment tech identification
- RP6 Regional Treatment Infrastructure

The following section has identified questions that are required for taking infrastructure planning decisions in the toolbox platform.

## Detailed Questionnaire

#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
1	City Basic Information	Name of the person entering the data			Y	Y	Y	Y	Y	Y	Y	Y
2	City Basic Information	Name of the organization			Y	Y	Y	Y	Y	Y	Y	Y
3	City Basic Information	Name of the urban area			Y	Y	Y	Y	Y	Y	Y	Y
4	City Basic Information	Province or state			Y	Y	Y	Y	Y	Y	Y	Y
5	City Basic Information	Country			Y	Y	Y	Y	Y	Y	Y	Y
6	City Basic Information	Total number of zones in the city		You can also find this data on the city website.	Y	Y	Y	Y	Y	Y	Y	Y
7	City Basic Information	Total wards in the city		1. Kindly refer to the city specific census (population and housing) document.  2. You can also find this data on the city website.	Y	Y	Y	Y	Y	Y	Y	Y
8	City Basic Information	Total Population of the city		1. Kindly refer to the city specific census (population and housing) document.  2. You can also find this data on the city website.	Y	Y						
9	City Basic Information	Total Households in the city		1. Kindly refer to the city census document to identify the average household size in the city.  2. Divide the total population by the average household size to identify the total number of households in the city.	Y							
10	City Basic Information	Total commercial properties in the city	Commercial buildings refers to offices, shopping complexes,	1. Kindly refer to the city website or documents (particularly tax/trade license documents) to obtain the number of	Y							

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
			theatres, hotels, restaurants, convention centers etc.	total commercial holdings in the city.  2. If data not provided on the city website or documents, then kindly ask the city engineer or planner.								
11	City Basic Information	Ratio of men to women in the city		Kindly refer to the city specific demographic census document.	Y							
12	City Basic Information	Average size of the household		Kindly refer to the city census document to identify the average household size in the city. If the value is unavailable at a city level, divide the total population of the city to the total number of households in the city to arrive at the average household size.	Y							
13	Household	Introduction section - notes to read			Y							
14	Household	Name of the family head			Y							
15	Household	Phone number of the family head			Y							
16	Household	Address of the household (Flat name, Flat number, Door number, Street Name, Location Name, City Name, Pin Code, ward number, zone number)			Y							
17	Household	What is the building type?  Single family house Apartment house Multi-family house in a single plot large building divided into many separate	This is an observation question		Y							

#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		tenements offering basic accommodatio n Hut Others, please specify										
18	Household	What is the size (carpet area) of the respondent's household?		Politely ask the respondent. If the household is unwilling to respond, observe the size of the household and provide an approximate response.	Y							
19	Household	What is the level of education completed by the chief wage earner of the household?  - Illiterate – not able to read and write in any language.  - Literate but no formal schooling.  - School up to 4 years.  - School - 5 to 9 years  - SSC/HSC.  - Some college (including a diploma) but not graduate.  - Graduate/post graduate: general.  - Graduate/post graduate: professional.			Y							
20	Household	Is this your own house?  Yes No			Y							

#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
21	Household	<p>Which of these items do you own at home?</p> <ul style="list-style-type: none"> <li>- Electricity connection (metered)</li> <li>- Ceiling fan</li> <li>- LPG stove</li> <li>- Bicycle</li> <li>- Two wheeler/ motorcycle/ scooter</li> <li>- Color TV</li> <li>- Refrigerator</li> <li>- Washing machine</li> <li>- Personal computer/laptop</li> <li>- Car / jeep / van / tractor, any four wheeler</li> <li>- Air conditioner</li> <li>- Landline</li> <li>- Mobile</li> <li>- Internet connection</li> <li>- Radio</li> <li>- Livestock</li> </ul>	Please observe and ask the respondent		Y							
22	Household	<p>What is the type of the house</p> <ul style="list-style-type: none"> <li>- Made of bricks, stones, cement and steel</li> <li>- Made of mud, hay, bamboo, twigs or leaves</li> </ul>	This is an observation question		Y							

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		- A mix of both										
23	Household	Considering all sources of income, what would be the annual income for your household?	This is an optional question		Y							
24	Household	What is your main source of drinking water?  - Household tap attached to piped water supply. - Government / community hand pump  - Private hand pump  - Well/pond/river  - Tanker  - Bore well  - Others (specify)			Y							
25	Household	Is this source of water inside or outside the household premises?  - Water source is within the Household  - Water source is outside the household			Y							
26	Household	Do you have a fully functional toilet in your house?  - Yes - No			Y		Y	Y	Y			Y
27	Household	If no, do you have access to community			Y							



#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		toilet?  - Yes - No										
28	Household	Is it a dry toilet?  - Yes - No			Y							
29	Household	Is the toilet connected to a single pit sanitation system?  - Yes - No			Y							
30	Household	Does the household have space to construct additional pits near the existing toilet facility?  - Yes - No			Y							
31	Household	What is the type of toilet user interface?  - Dry toilet  - Urine diverting dry toilet  - Pour flush toilet  - Cistern flush toilet  - Urine diverting flush toilet			Y							
32	Household	What is the type of onsite sanitation system in your household?  1. No onsite container, toilet discharges directly to destination		There are several ways in which the response to this question could be elicited from the respondent: • Request the respondent to recall the containment type by looking at the reference images provided in the mobile app.	Y		Y	Y	Y			Y

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		<p>given in Tech B</p> <p>2. Septic tank</p> <p>3. Fully lined tank (sealed)</p> <p>4. Lined tank with impermeable walls and open bottom</p> <p>5. Lined pit with semi-permeable walls and open bottom</p> <p>6. Unlined pit</p> <p>7. Pit (all types), never emptied but abandoned when full and covered with soil</p> <p>8. Pit (all types), never emptied but abandoned when full and NOT adequately covered with soil</p> <p>9. Toilet failed, damaged, collapsed or flooded.</p> <p>10. Containment (septic tank or tank or pit latrine) failed, damaged, collapsed or flooded</p> <p>11. Open defecation</p>		<ul style="list-style-type: none"> <li>Request the respondent to contact any other knowledgeable respondent of the house.</li> <li>If none of them are aware, attempt looking at the containment system and guess the type of the system. Here is a link to different containment system types.</li> </ul>								

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
33	Household	<p>Identify the type of technology to which the on-site sanitation system is connected in your property?</p> <ol style="list-style-type: none"> <li>1. To centralized combined sewer</li> <li>2. To centralized foul/separate sewer</li> <li>3. To decentralized combined sewer</li> <li>4. To decentralized foul/separate sewer</li> <li>5. To soak pit</li> <li>6. To open drain or storm sewer.</li> <li>7. To water body</li> <li>8. To open ground</li> <li>9. To 'don't know where'</li> <li>10. No outlet or overflow</li> </ol>		<p>There are several ways in which the response to this question could be elicited from the respondent:</p> <ul style="list-style-type: none"> <li>• Request the respondent to recall the containment type by looking at the reference images provided in the mobile app.</li> <li>• Request the respondent to contact any other knowledgeable respondent of the house.</li> <li>• If none of them are aware, attempt looking at the containment system and guess the type of the system. Here is a link to different containment system types.</li> </ul>	Y		Y	Y	Y			Y
34	Household	What is the total male population in your household (including children)?			Y		Y	Y	Y			Y
35	Household	What is the total female population in your household			Y		Y	Y	Y			Y

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		(including children)?										
36	Household	Do all members of your household make use of the household/community toilet?  - Yes - No			Y		Y	Y	Y			Y
37	Household	How many male members access them?			Y		Y	Y	Y			Y
38	Household	How many female members access them?			Y		Y	Y	Y			Y
39	Household	Is there a single piece of land in the household for construction/re-construction of toilet?  - Yes - No			Y							
40	Household	What is the size of land parcel available at the household?		Observe the site to identify the size of the land available.	Y							
41	Household	Here is a list of onsite sanitation systems. Please view the images shown next to the options before shortlisting your preferred onsite sanitation system for the community toilet in your locality when it is constructed			Y							
42	Household	GPS location of the household?			Y		Y	Y	Y			Y
43		Q35 to Q48 is applicable only for those households where Q19 = No and HH toilet			Y							

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		construction is feasible (based on Q32 > Q70).										
44	Household	<p>What do you think is the general water availability for toilet usage in your property?</p> <ul style="list-style-type: none"> <li>- Water unavailable for toilet usage</li> <li>- 1 small bucket of water per use (5L per use)</li> <li>- 1 medium bucket of water per use (5-10L per use)</li> <li>- 1 large bucket of water per use (10-15L per use)</li> </ul>			Y							
45	Household	<p>What is the predominant water sourcing method in your property?</p> <ul style="list-style-type: none"> <li>- Piped water connection supplied through household overhead tank (or)</li> <li>- Other methods (fetched, hand pump, standpipe, tanker)</li> </ul>			Y							
46	Household	<p>What are the end use possibilities of sanitation products in the city/ neighborhood?</p> <ul style="list-style-type: none"> <li>- Human urine as fertilizers for crops</li> </ul>	Do not suggest or preempt answers.		Y							

#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		(or) - Dried human feces as fertilizer for crops (or) - None										
47	Household	Are the household members comfortable about using two different compartments in the toilet user interface regularly? (Images to be shown alongside)  - Yes - No	Do not suggest or preempt answers.		Y							
48	Household	What is the preferred anal cleansing method for the household (water/soft paper/others)?			Y							
49	Household	Based on the previous responses, here is a shortlist of toilet user interfaces. Please view the images shown next to the options and state your preference?			Y							
50	Household	Is the site flood prone?  - Non-flood prone area  - Flood prone area	Do not suggest or preempt answers.		Y							
51	Household	At what depth is the ground water available in the site?  - Less than 2m	Do not suggest or preempt answers.		Y							

#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		- 2m to 5m - greater than 5m										
52	Household	What is the % of slope at the site?  - Less than 5% - 5% to 25% - greater than 25%	Do not suggest or preempt answers.		Y							
53	Household	What is the vehicular accessibility to the site?  - No access (less than 3m)  - Limited/narrow (3m - 6m)  - Full access (greater than 6m)	Do not suggest or preempt answers.		Y							
54	Household	What is the soil type at the site?  - clayey - silty - sandy - gravelly - rocky	Do not suggest or preempt answers.		Y							
55	Household	What is the operational capacity/preference of the user for maintenance of the system?  - High - Moderate - Low	Do not suggest or preempt answers.		Y							
56	Household	Is the toilet user comfortable about using two different compartments (for disposal of urine and fecal sludge) at the facility regularly?	Do not suggest or preempt answers.		Y							

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		- Yes - No										
57	Household	Based on the previous responses, here is a shortlist of onsite sanitation systems that are applicable to your household. Please view the images shown next to the options before shortlisting your preferred onsite sanitation system (including no preference, decision based on cost and decision based on quality).			Y							
58	Community toilets	GPS location of operational community toilet.			Y		Y	Y	Y			Y
59	Community toilets	Ward number and zone number of the community toilet.			Y							
60	Community toilets	Select the types of toilet user interface available in this community toilet facility for men? (Dry toilet, urine diverting dry toilet, pour flush toilet, cistern flush toilet, urine diverting flush toilet, others please specify).		Kindly approach the chairperson of the community based organization or the person responsible for maintaining the toilet. Also you can triangulate this information by observing the type of toilet user interface available.	Y							
61	Community toilets	How many toilet seats are available for men in this community toilet facility? (Provide	Community toilets here means a shared facility provided by and for a	Kindly approach the chairperson of the community based organization or the person responsible for maintaining the toilet to know the number of	Y							



#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		numbers against each typology selected in the previous question)	group of residents or an entire settlement. Community toilet blocks are used primarily in low-income and/or informal settlements and/or slums, where space and/or land is a constraint in providing a household toilet. These are for a fixed user group.	community toilet seats available for men in the facility or observe the number of seats available in the toilet facility for men.								
62	Community toilets	Select the types of toilet user interface available in this community toilet facility for women? (Dry toilet, urine diverting dry toilet, pour flush toilet, cistern flush toilet, urine diverting flush toilet, others please specify)		Kindly approach the chairperson of the community based organization or the person responsible for maintaining the toilet. You can also triangulate this information by observing the type of toilet user interface available.	Y							
63	Community toilets	How many toilet seats are available for women in this community toilet facility? (Provide numbers against each typology selected in the previous question)		Kindly approach the chairperson of the community based organization or the person responsible for maintaining the toilet to know the number of community toilet seats available for men in the facility or observe the number of seats available in the toilet facility for men.	Y							
64	Community toilets	How many households are dependent on		Kindly approach the chairperson of the community based	Y		Y	Y	Y			Y

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		this community toilet facility?		organization or the person responsible for maintaining the toilet to know the number of households dependent on the community toilet								
65	Community toilets	<p>What is the type of onsite sanitation system in the community toilet facility?</p> <ol style="list-style-type: none"> <li>1. No onsite container, toilet discharges directly to destination given in Tech B</li> <li>2. Septic tank</li> <li>3. Fully lined tank (sealed)</li> <li>4. Lined tank with impermeable walls and open bottom</li> <li>5. Lined pit with semi-permeable walls and open bottom</li> <li>6. Unlined pit</li> <li>7. Pit (all types), never emptied but abandoned when full and covered with soil</li> <li>8. Pit (all types), never emptied but abandoned when full and NOT</li> </ol>		<p>There are several ways in which the response to this question could be elicited from the respondent:</p> <ul style="list-style-type: none"> <li>• Request the respondent to recall the containment type by looking at the reference images provided in the mobile app.</li> <li>• Request the respondent to contact any other knowledgeable person in the house.</li> <li>• If none of them are aware, attempt looking at the containment system and guess the type of the system. Here is a link to the type of containment systems.</li> </ul>	Y		Y	Y	Y			Y

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		adequately covered with soil  9. Toilet failed, damaged, collapsed or flooded  10. Containment (septic tank or tank or pit latrine) failed, damaged, collapsed or flooded  11. Open defecation										
66	Community toilets	Identify the type of technology to which the on-site sanitation system is connected in the community toilet facility?  1. To centralized combined sewer  2. To centralized foul/separate sewer  3. To decentralized combined sewer  4. To decentralized foul/separate sewer  5. To soak pit  6. To open drain or storm sewer.  7. To water body		There are several ways in which the response to this question could be elicited from the respondent: <ul style="list-style-type: none"> <li>Request the respondent to recall the containment type by looking at the reference images provided in the mobile app.</li> <li>Request the respondent to contact any other knowledgeable person in the house.</li> <li>If none of them are aware, attempt looking at the containment system and guess the type of the system. Here is a link to the type of containment systems.</li> </ul>	Y		Y	Y	Y			Y

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		<p>8.To open ground</p> <p>9.To 'don't know where'</p> <p>10. No outlet or overflow</p>										
67	Community toilets	<p>At what distance can this property be accessed from the road by a mechanized tank?</p> <ul style="list-style-type: none"> <li>· Within 100 feet</li> <li>· Within 200 feet</li> <li>· Within 300 feet</li> <li>· Cannot be accessible from road and can be desludged by manual methods only</li> </ul>		Note down the distance of the community toilet from the nearest access road which can accommodate a vaccutug.				Y	Y			
68	Community toilets	<p>Can the On-site Sanitation System (OSS) be easily accessed within the premise?</p> <p>-- Can be easily accessed upon reaching the premise (the chambers of the OSS have manholes covered with slabs and can be moved easily)</p> <p>-- Can be accessed with minimal effort upon reaching the premise (the chambers of the OSS have manholes</p>		Observe whether the toilet can be easily accessed as per the given options.				Y	Y			

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		<p>covered with concrete slabs and this needs to be broken in the corners in order to access it/breaking open an identified spot near the OSS)</p> <p>-- Can be accessed with a lot of effort upon reaching the premise (the OSS is buried underground/placed right below the toilet/buried under soil in the parking or play area)</p>										
69	Community toilets	<p>What is your preferred mode of desludging service?</p> <ul style="list-style-type: none"> <li>- Manual desludging service</li> <li>- Semi-mechanized desludging service</li> <li>- Mechanized desludging service</li> </ul>	Please elicit the response from the respondent only. Do not suggest or preempt answers.				Y	Y				
70	Government - Community Toilets	GPS location of vacant land (government property/can be mobilized by the government) available for construction of community toilets			Y							
71	Government - Community Toilets	Size of vacant land (government property/can be			Y							

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		mobilized by the government) available for construction of community toilets										
72	Government - Community Toilets	<p>What do you think is the potential water availability for toilet usage in this location available for construction of community toilet?</p> <ul style="list-style-type: none"> <li>- Water unavailable for toilet usage</li> <li>- 1 small bucket of water per use (5L per use)</li> <li>- 1 medium bucket of water per use (5-10L per use)</li> <li>- 1 large bucket of water per use (10-15L per use)</li> </ul>			Y							
73	Government - Community Toilets	<p>What do you think is the potential water sourcing method in this location available for construction of community toilet?</p> <ul style="list-style-type: none"> <li>- Piped water connection supplied through overhead tank (or)</li> <li>- Other methods (fetched, hand pump, standpipe, open</li> </ul>			Y							

#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		tank at floor level)										
74	Government - Community Toilets	<p>What are the end use possibilities of sanitation products in the city/ neighborhood?</p> <ul style="list-style-type: none"> <li>- Human urine as fertilizers for crops (or)</li> <li>- Dried human feces as fertilizer for crops (or)</li> <li>- None</li> </ul>		<p>1. Kindly refer to sanitation related documents published by local or international organizations (urban local bodies, NGOs, donor agencies, etc.) which focuses on the reuse scenario of fecal sludge in the city.</p> <p>2. If data is not available in the secondary documents, kindly approach the chief engineer of the city.</p>	Y							
75	Government - Community Toilets	<p>Are the households in this locality comfortable about using two different compartments in the toilet user interface regularly? (images to be shown alongside)</p> <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul>		Kindly conduct a primary survey to understand the behavior and preference of users.	Y							
76	Government - Community Toilets	<p>What is the preferred anal cleansing method for households in the neighborhood? (Water/Soft paper/others)</p>		<p>1. Kindly refer to sanitation related documents published by local or international organizations (urban local bodies, NGOs, donor agencies, etc.) focusing on sanitation practices in the city.</p> <p>2. Conduct key informant interviews with local NGOs working in the sanitation sector.</p>	Y							

#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
77	Government - Community Toilets	Is the proposed community toilet site flood prone?  - Non-flood prone area - Flood prone area		1. Kindly refer to secondary documents specifying the topography of the area.  2. Conduct key informant interviews with the city municipal planner, the city engineer or the locals of the area.	Y							
78	Government - Community Toilets	At what depth is the ground water available in the proposed community toilet site?  - Less than 2m - 2m to 5m - greater than 5m		1. Kindly refer to the documents published by the water supply and sewerage department in the city or by talking to the chief engineer of the department.  2. You can also get this information from the city documents or website or by talking to the city engineer.	Y							
79	Government - Community Toilets	What is the % of slope at the proposed community toilet site?  - Less than 5% - 5% to 25% - greater than 25%		1. Kindly refer to the secondary documents specifying the topography details of the area.  2. You can also get this information from the city documents or website or by talking to the city engineer.  3. You may also find this information while speaking to a few locals in the city.	Y							
80	Government - Community Toilets	What is the vehicular accessibility to the proposed community toilet site?  - No access (less than 3m) - limited/narrow (3m - 6m) - Full access		Kindly measure the road width of the access road to the site.	Y							



#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		(greater than 6m)										
81	Government - Community Toilets	<p>What is the soil type at the proposed community toilet site?</p> <ul style="list-style-type: none"> <li>- clayey</li> <li>- silty</li> <li>- sandy</li> <li>- gravelly</li> <li>- rocky</li> </ul>		<p>1. Kindly refer to the documents published by the geological survey department to identify the soil type at the site.</p> <p>2. If secondary data not available, then you need to conduct a soil profile test to identify the soil type at the site.</p>	Y							
82	Government - Community Toilets	<p>What is the operational capacity/preference of the user for maintenance of the system?</p> <ul style="list-style-type: none"> <li>- High</li> <li>- Moderate</li> <li>- Low</li> </ul>		Kindly approach the households in the community to understand their perspective on the operations and maintenance requirement of the system.	Y							
83	Assumptions	Benchmark on minimal land requirement at a household level for construction of toilet by technology		Refer to your country standards (such as the national building code) published by national government institutions such as the Public Works Department or the Department of Public Health. Alternatively, consult with sanitation experts to understand preferred benchmarks that suits your city sanitation landscape.	Y							
84	Assumptions	<p>Benchmark –</p> <p>At least 1 community toilet seat should be constructed for every _____ male population</p>		Refer to your country standards (such as the national building code) published by national government institutions such as the Public Works Department or the Department of Public Health. Alternatively, consult with sanitation experts to understand preferred benchmarks that suits your city sanitation landscape.	Y							

#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
85	Assumptions	Benchmark –  At least 1 community toilet seat should be constructed for every _____ female population		Refer to your country standards (such as the national building code) published by national government institutions such as the Public Works Department or the Department of Public Health. Alternatively, consult with sanitation experts to understand preferred benchmarks that suits your city sanitation landscape.	Y							
86	Assumptions	Benchmark – maximum distance (_____ m) that can be travelled by any household to access the community toilet facility		Refer to your country standards (such as the national building code) published by national government institutions such as the Public Works Department or the Department of Public Health. Alternatively, consult with sanitation experts to understand preferred benchmarks that suits your city sanitation landscape.	Y							
87	Assumptions	Benchmark – _____ minimum land required for construction of 1 community toilet seat (for every toilet technology)		Refer to your country standards (such as the national building code) published by national government institutions such as the Public Works Department or the Department of Public Health. Alternatively, consult with sanitation experts to understand preferred benchmarks that suits your city sanitation landscape.	Y							
88	City Basic Information	Total number of public areas in the city?  -Public transport areas: Bus stop, railway stations, subway transit etc.		1. Kindly refer to the city or city development authority website or documents to get the number of total public places in the city.  2. If data is not provided on the city website or documents, then approach your city		Y						

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		<p>-Commercial hotspots such as local markets</p> <p>-Public spaces: parks, playgrounds, areas demarcated for public events.</p>		engineer or planner to get the total number of public places in the city.								
89	City Basic Information	Total floating population of the city		<p>1. Kindly refer to the city specific floating population census document.</p> <p>2. You may also get this data from the city planner or the city engineer.</p>		Y						
90	City Basic Information	Ratio of men to women floating population in the city		Kindly refer to the city specific demographic census document. Alternatively, you can conduct a footfall survey in key areas of the city to arrive at this value.		Y						
91	Public places	What is the type of the public area (railway stations, public transit area, market, bus station, park, playground, others please specify)?				Y						
92	Public places	What is the average floating population in this location?		Kindly refer to the city specific floating population census document. While the census will give you the overall city data, approach your city planner or the city engineer to understand the specifics of the particular location. Alternatively, you can approach a few local shops to obtain a rough estimate of the average floating population for that particular location.		Y						

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
93	Public places	Mark the GPS location of the 4 corner point of this public area?		Please ensure to cover the 4 end points of the public area in all the four directions (namely north, south, east, west)		Y						
94	Public places	Ward number and zone number of the public place				Y						
95	Public places	What % of the floating population is men?		1. Kindly refer to the city specific floating population census document.  2. You may also get this data from the city planner or the city engineer.		Y						
96	Public places	What % of the floating population is women?		1. Kindly refer to the city specific floating population census document.  2. You may also get this data from the city planner or the city engineer.		Y						
97	Public places	How many public toilet facilities are available in this location?		Approach your city engineer or city urban planner to know the number of public toilets in this location.		Y						
98	Public places	What is the GPS location of the public toilet facility?				Y	Y	Y	Y			Y
99	Public places	Select the types of toilet user interface available in this public toilet facility for men (dry toilet, urine diverting dry toilet, pour flush toilet, cistern flush toilet, urine diverting flush toilet, others please specify).		Approach your public toilet operator. You can also triangulate this information by observing the number of seats in the public toilet.		Y						

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
100	Public places	How many toilet seats are available for men in this public toilet facility? (Provide numbers against each typology selected in the previous question)		Approach your public toilet operator. You can also triangulate this information by observing the number of seats in the public toilet.		Y						
101	Public places	Select the types of toilet user interface available in this public toilet for women? (Dry toilet, urine diverting dry toilet, pour flush toilet, cistern flush toilet, urine diverting flush toilet, others please specify)		Approach your public toilet operator. You can also triangulate this information by observing the number of seats in the public toilet.		Y						
102	Public places	How many toilet seats are available for women in this public toilet facility? (Provide numbers against each typology selected in the previous question)		Approach your public toilet operator. You can also triangulate this information by observing the number of seats in the public toilet.		Y						
103	Public places	What is the type of onsite sanitation system in the public toilet facility?  1. No onsite container, toilet discharges directly to destination		There are several ways in which the response to this question could be elicited from the respondent: <ul style="list-style-type: none"> <li>Request the respondent to recall the containment type by looking at the reference images provided in the mobile app.</li> </ul>		Y	Y	Y	Y			Y

#	Q category	Questions	Hints	Data collection protocol	R PI	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		<p>given in Tech B</p> <p>2. Septic tank</p> <p>3. Fully lined tank (sealed)</p> <p>4. Lined tank with impermeable walls and open bottom</p> <p>5. Lined pit with semi-permeable walls and open bottom</p> <p>6. Unlined pit</p> <p>7. Pit (all types), never emptied but abandoned when full and covered with soil</p> <p>8. Pit (all types), never emptied but abandoned when full and NOT adequately covered with soil</p> <p>9. Toilet failed, damaged, collapsed or flooded.</p> <p>10. Containment (septic tank or tank or pit latrine) failed, damaged, collapsed or flooded</p> <p>11. Open defecation</p>		<ul style="list-style-type: none"> <li>Request the respondent to contact any other knowledgeable respondent of the house.</li> <li>If none of them are aware, attempt looking at the containment system and guess the type of the system. Here is a link to type of containment systems.</li> </ul>								

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
104	Public places	<p>Identify the type of technology to which the onsite sanitation system is connected in the public toilet facility:</p> <ol style="list-style-type: none"> <li>1. To a centralized combined sewer</li> <li>2. To a centralized foul/separate sewer</li> <li>3. To a decentralized combined sewer</li> <li>4. To a decentralized foul/separate sewer</li> <li>5. To a soak pit</li> <li>6. To an open drain or storm sewer.</li> <li>7. To a water body</li> <li>8. To an open ground</li> <li>9. To 'don't know where'</li> <li>10. No outlet or overflow</li> </ol>		<p>There are several ways in which the response to this question could be elicited from the respondent:</p> <ul style="list-style-type: none"> <li>• Request the respondent to recall the containment type by looking at the reference images provided in the mobile app.</li> <li>• Request the respondent to contact any other knowledgeable respondent of the house.</li> <li>• If none of them are aware, attempt looking at the containment system and guess the type of the system. Here is a link to type of containment systems.</li> </ul>		Y	Y	Y	Y			Y
105	Public places	How many people are dependent on this public toilet facility for defecation purpose only?		Approach your public toilet operator. You can also triangulate this information by observing the average footfall in the facility.			Y	Y	Y			Y
106	Public places	At what distance can		Note down the distance of the toilets from the				Y	Y			

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		<p>this property be accessed from the road by a mechanized tank?</p> <ul style="list-style-type: none"> <li>· Within 100 feet</li> <li>· Within 200 feet</li> <li>· Within 300 feet</li> <li>· Cannot be accessed by trucks and can be desludged by manual methods only</li> </ul>		nearest access road which can accommodate a vaccutug.								
107	Public places	<p>Can the Onsite Sanitation System (OSS) be easily accessed within the premise?</p> <p>-- Can be easily accessed upon reaching the premise (the chambers of the OSS have manholes covered with slabs and can be moved easily)</p> <p>-- Can be accessed with minimal effort upon reaching the premise (the chambers of the OSS have manholes covered with concrete slabs and this needs to be broken in the corners in order to access it/breaking open an identified spot near the OSS)</p>		Kindly observe whether the toilet can be easily accessed as per the given options.				Y	Y			



#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		-- Can be accessed with a lot of effort upon reaching the premise (the OSS is buried underground/placed right below the toilet/buried under soil in the parking or play area)										
108	Public places	What is your preferred mode of desludging service?  - Manual desludging service  - Semi-mechanized desludging service  - Mechanized desludging service	Do not suggest or preempt answers.					Y	Y			
109	Government - Public Toilets	GPS location of vacant land (government property/can be mobilized by the government) available for construction of public toilets.				Y						
110	Government - Public Toilets	Size of vacant land (government property/can be mobilized by the government) available for construction of public toilets.				Y						
111	Government - Public Toilets	What do you think is the potential water availability for toilet usage in this location available for				Y						

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		<p>construction of public toilet?</p> <ul style="list-style-type: none"> <li>- Water unavailable for toilet usage</li> <li>- 1 small bucket of water per use (5L per use)</li> <li>- 1 medium bucket of water per use (5-10L per use)</li> <li>- 1 large bucket of water per use (10-15L per use)</li> </ul>										
112	Government - Public Toilets	<p>What do you think is the potential water sourcing method in this location available for construction of public toilet?</p> <ul style="list-style-type: none"> <li>- Piped water connection supplied through overhead tank (or)</li> <li>- Other methods (fetched, hand pump, standpipe, open tank at floor level)</li> </ul>				Y						
113	Government - Public Toilets	<p>What are the end use possibilities of sanitation products in the city/neighborhood?</p> <ul style="list-style-type: none"> <li>- Human urine as fertilizers for crops (or)</li> <li>- Dried human feces as fertilizer for crops (or)</li> <li>- None</li> </ul>		Undertake key informant interviews with the chief/city engineer.		Y						

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
114	Government - Public Toilets	Is the floating population in this locality comfortable about using two different compartments as the toilet user interface regularly?  - Yes - No		Kindly conduct a primary survey to understand the behavior and preference of users.		Y						
115	Government - Public Toilets	What is the preferred anal cleansing method for floating population in the neighborhood (water/soft paper/others)?		Consult local NGOs in the sector.		Y						
116	Government - Public Toilets	Based on the previous responses, here is a shortlisted list of toilet user interfaces that are applicable to your public toilet. Please view the images shown next to the options before shortlisting your preferred toilet user interface (including no preference, decision based on cost and decision based on quality).				Y						
117	Government - Public Toilets	What is the level of preference of each of these shortlisted toilet user interfaces in this location? {collect % values for each of the shortlisted				Y						

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		options from Q19}										
118	Government - Public Toilets	Is the proposed public toilet site flood prone?  - Non-flood prone area - Flood prone area		Undertake Key informant interviews with the chief/city engineer.		Y						
119	Government - Public Toilets	At what depth is the ground water available in the proposed public toilet site?  - Less than 2m - 2m to 5m - greater than 5m		1. Kindly refer to the documents of the water supply and sewerage department in the city or talk to the chief engineer of the department.  2. You can also get this information from city documents or website or talk to the city engineer.		Y						
120	Government - Public Toilets	What is the % of slope at the proposed public toilet site?  - Less than 5% - 5% to 25% - greater than 25%	If the area is hilly, then the area will have slope greater than 5%. Similarly if the area is a flat plain then the area will have a slope of less than 5%.	1. Kindly refer to the secondary documents specifying the topography details of the area.  2. You can also get this information from city documents or website or talk to the city engineer		Y						
121	Government - Public Toilets	What is the vehicular accessibility to the proposed public toilet site?  - No access (less than 3m) - limited/narrow (3m - 6m) - Full access (greater than 6m)		Kindly measure the road width of the access road to the site.		Y						
122	Government - Public Toilets	What is the soil type at the proposed public toilet site?  - clayey		1. Kindly refer to the documents of geological survey department to identify the soil type at the site.		Y						

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		<ul style="list-style-type: none"> <li>- silty</li> <li>- sandy</li> <li>- gravelly</li> <li>- rocky</li> </ul>		2. If secondary data is not available, then you need to conduct a soil profile test to identify the soil type at the site.								
123	Government - Public Toilets	<p>What is the operational capacity/preference of the user for maintenance of the system?</p> <ul style="list-style-type: none"> <li>- High</li> <li>- Moderate</li> <li>- Low</li> </ul>		Approach the city officials or the development authority officials to understand their perspective on the operations and maintenance requirements of the system.		Y						
124	Government - Public Toilets	<p>Is the toilet user comfortable about using two different compartments (for disposal of urine and fecal sludge) at the proposed public toilet site regularly?</p> <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul>		Kindly conduct primary survey to understand the behavior and preference of users.		Y						
125	Government - Public Toilets	<p>Based on the previous responses, here is a shortlist of onsite sanitation systems that are applicable to the proposed public toilet site? Please view the images shown next to the options before shortlisting your preferred onsite sanitation system? (including no preference, decision based on cost and decision based on quality)</p>				Y						
126	Assumptions	Benchmark – At least 1 Public		Refer to your country standards (such as the		Y						

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		toilet seat should be constructed for every _____ male population		national building code) published by national government institutions such as the Public Works Department or the Department of Public Health. Alternatively, consult with sanitation experts to understand preferred benchmarks that suits your city sanitation landscape.								
127	Assumptions	Benchmark – At least 1 Public toilet seat should be constructed for every _____ female population		Refer to your country standards (such as the national building code) published by national government institutions such as the Public Works Department or the Department of Public Health. Alternatively, consult with sanitation experts to understand preferred benchmarks that suits your city sanitation landscape.		Y						
128	Assumptions	Benchmark – maximum distance (_____ m) that can be travelled by any person to access the public toilet facility		Refer to your country standards (such as the national building code) published by national government institutions such as the Public Works Department or the Department of Public Health. Alternatively, consult with sanitation experts to understand preferred benchmarks that suits your city sanitation landscape.		Y						
129	Assumptions	Benchmark – _____ minimum land required for construction of 1 public toilet seat (for every toilet technology)		Refer to your country standards (such as the national building code) published by national government institutions such as the Public Works Department or the Department of Public Health. Alternatively, consult with sanitation experts to understand preferred benchmarks that suits your city sanitation landscape.		Y						

#	Q category	Questions	Hints	Data collection protocol	RP1	RP2	RP3	RP4	RP5A	RP5B	RP5C	RP6
130	City Basic Information	Average size of the household		Kindly refer to the city census document to identify the average household size in the city. If the value is unavailable at a city level, divide the total population of the city to the total number of households in the city to arrive at average size of household.			Y	Y	Y			Y
131	CII Buildings	<p>What is the type of building?</p> <p>Commercial - office, shopping complex, theatres, hotels, restaurants, marriage halls etc.</p> <p>Institutional - schools, universities, prisons, government buildings, religious buildings such as temples/mosques/churches/etc.</p> <p>industrial - manufacturing units, factories, etc.</p>					Y	Y	Y			Y
132	CII Buildings	<p>Does the commercial/institutional/industrial building have access to toilet facility within the premises in operational condition?</p> <p>- Yes - No</p>					Y	Y	Y			Y
133	CII Buildings	What is the GPS location of the building					Y	Y	Y			Y
134	CII Buildings	On an average, how many					Y	Y	Y			Y

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		people make use of the toilet facility for defecation purpose only?										
135	CII Buildings	<p>Identify the type of onsite sanitation system in your property?</p> <ol style="list-style-type: none"> <li>1. No onsite container, toilet discharges directly to destination given in Tech B</li> <li>2. Septic tank</li> <li>3. Fully lined tank (sealed)</li> <li>4. Lined tank with impermeable walls and open bottom</li> <li>5. Lined pit with semi-permeable walls and open bottom</li> <li>6. Unlined pit</li> <li>7. Pit (all types), never emptied but abandoned when full and covered with soil</li> <li>8. Pit (all types), never emptied but abandoned when full and NOT adequately covered with soil</li> </ol>		<p>There are several ways in which the response to this question could be elicited from the respondent:</p> <ul style="list-style-type: none"> <li>• Request the respondent to recall the containment type by looking at the reference images provided in the mobile app</li> <li>• Request the respondent to contact any other knowledgeable respondent of the house</li> <li>• If none of them are aware, attempt looking at the containment system and guess the type of the system. Here is a link to type of containment systems.</li> </ul>			Y	Y	Y			Y



#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		<p>9. Toilet failed, damaged, collapsed or flooded.</p> <p>10. Containment (septic tank or tank or pit latrine) failed, damaged, collapsed or flooded</p> <p>11. Open defecation</p>										
136	CII Buildings	<p>Identify the type of technology to which the onsite sanitation system is connected in your property?</p> <p>1. To centralized combined sewer</p> <p>2. To centralized foul/separate sewer</p> <p>3. To decentralized combined sewer</p> <p>4. To decentralized foul/separate sewer</p> <p>5. To soak pit</p> <p>6. To open drain or storm sewer</p> <p>7. To water body</p> <p>8. To open ground</p> <p>9. To 'don't know where'</p>		<p>There are several ways in which the response to this question could be elicited from the respondent:</p> <ul style="list-style-type: none"> <li>Request the respondent to recall the containment type by looking at the reference images provided in the mobile app</li> <li>Request the respondent to contact any other knowledgeable respondent of the house</li> <li>If none of them are aware, attempt looking at the containment system and guess the type of the system. Here is a link to type of containment systems.</li> </ul>			Y	Y	Y			Y

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		10. No outlet or overflow										
137	Assumptions	Generation rate per person per day by onsite sanitation system technology (from benchmark table).		Refer to your country standards published by the national government. Alternatively, consult with sanitation experts to understand preferred benchmarks that suits your city sanitation landscape.			Y	Y	Y			Y
138	Household	At what distance can this property be accessed from the road by a mechanized tank?  · Within 100 feet · Within 200 feet · Within 300 feet · Cannot be accessed by trucks and can be desludged by manual methods only		Note down the distance of the toilets from the nearest access road which can accommodate a vaccutug.				Y	Y			
139	Household	Can the On-site Sanitation System (OSS) be easily accessed within the premise?  -- Can be easily accessed upon reaching the premise (the chambers of the OSS have manholes covered with slabs and can be moved easily)  -- Can be accessed with minimal effort upon reaching the premise (the chambers of the		Kindly observe whether the toilet can be easily accessed as per the given options.				Y	Y			

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		<p>OSS have manholes covered with concrete slabs and this needs to be broken in the corners in order to access it/breaking open an identified spot near the OSS)</p> <p>-- Can be accessed with a lot of effort upon reaching the premise (the OSS is buried underground/placed right below the toilet/buried under soil in the parking or play area)</p>										
140	Household	<p>What is your preferred mode of desludging service?</p> <ul style="list-style-type: none"> <li>- Manual desludging service</li> <li>- Semi-mechanized desludging service</li> <li>- Mechanized desludging service</li> </ul>	Do not suggest or preempt answers.				Y	Y				
141	CII Buildings	<p>At what distance can this property be accessed from the road by a mechanized tank?</p> <ul style="list-style-type: none"> <li>· Within 100 feet</li> <li>· Within 200 feet</li> <li>· Within 300</li> </ul>		Note down the distance of the toilets from the nearest access road which can accommodate a vaccutug.				Y	Y			

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		feet · Cannot be accessed by trucks and can be desludged by manual methods only										
142	CII Buildings	<p>Can the On-site Sanitation System (OSS) be easily accessed within the premise?</p> <p>-- Can be easily accessed upon reaching the premise (the chambers of the OSS have manholes covered with slabs and can be moved easily)</p> <p>-- Can be accessed with minimal effort upon reaching the premise (the chambers of the OSS have manholes covered with concrete slabs and this needs to be broken in the corners in order to access it/breaking open an identified spot near the OSS)</p> <p>-- Can be accessed with a lot of effort upon reaching the premise (the OSS is buried underground/placed right below the toilet/buried</p>		Kindly observe whether the toilet can be easily accessed as per the given options.				Y	Y			

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		under soil in the parking or play area)										
143	CII Buildings	<p>What is your preferred mode of desludging service?</p> <ul style="list-style-type: none"> <li>- Manual desludging service</li> <li>- Semi-mechanized desludging service</li> <li>- Mechanized desludging service</li> </ul>	Do not suggest or preempt answers.					Y	Y			
144	Desludging Operator	<p>A. Type of desludging vehicle (check vehicle types page)</p> <p>B. Capacity of desludging vehicle in m3</p> <p>C. Number of units</p> <p>D. Ability to access properties by road of width lesser than 3m (Yes/No)</p> <p>E. Ability to access properties by road of width greater than 3m (Yes/No)</p> <p>F. Maximum distance from road that can be serviced by expanding the length of hose pipe (100</p>						Y	Y			

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		ft., 200ft, 300, ft.)  G. Number of days of operation for desludging operators?  H. Number of hours of operation in any day?  I. Name of the company										
145	City Basic Information	What is the projected population of the city? (projected by at least 10 years)		Use these values on simple online calculators such as <a href="http://www.metamorphosisalpha.com/ias/population.php">http://www.metamorphosisalpha.com/ias/population.php</a> to calculate a simple population projection for the city.					Y			
146	Government - Treatment plant site	Is there any habitation in less than 200m distance from the identified site?  - Yes - No		1. Kindly review the land use map for the city to identify the presence of any habitation within 200 meters radius of the identified site for treatment plant.  2. If a land use map is not available, then talk to the city engineer to identify the presence of any nearby habitation or undertake site visits to check for any nearby habitation.						Y		
147	Government - Treatment plant site	Are there any water bodies in less than 200m distance from the identified site?  - Yes - No		1. Kindly review the land use map for the city to identify the presence of any waterbody within 200 meters radius of the identified site for treatment plant.  2. If a land use map is not available, then talk to the city engineer to						Y		

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
				identify the presence of any nearby water body or undertake site visits to check for any nearby water bodies.								
148	Government - Treatment plant site	Is the identified site a wetland?  - Yes - No		1. Kindly review the land use map for the city to identify the presence of wetland in the identified site for treatment plant.  2. If a land use map is not available, then talk to the city engineer to identify the presence of any wetland or undertake a site visit.						Y		
149	Government - Treatment plant site	Is the identified site in a flood prone area?  - Yes - No		1. Kindly review the land use map for the city to identify the presence of water bodies in the proximity to the identified site.  2. If a land use map is not available, then talk to the city engineer to identify the possibility of flooding in the identified site.						Y		
150	Government - Treatment plant site	Is there an airport site (current/proposed) in less than 20Km distance from the identified site?  - Yes - No		1. Kindly review the land use map for the city to identify the presence of airports nearby the identified site for treatment plant.  2. If a land use map is not available, then either talk to the municipal city engineer or officials from city development authority to identify the presence of airports.						Y		
151	Government - Treatment plant site	Is there a heritage site in less than 10Km distance from the identified site?  - Yes - No		1. Kindly review the land use map for the city to identify the proximity to heritage sites nearby the identified site for treatment plant.						Y		

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
				2. If a land use map is not available, then either talk to the municipal city engineer or officials from the city development authority to identify the presence of heritage sites in the neighborhood of identified treatment site.								
152	Government - Treatment plant site	Is the groundwater table available in less than 3m distance from the ground?  - Yes - No		1. Kindly refer to the documents of the water supply and sewerage department in the city or by talking to the chief engineer of the department.  2. You can also get this information from city documents, website or by talking to the city engineer.						Y		
153	Government - Treatment plant site	Is there a drainage channel available next to the identified site?  - Yes - No								Y		
154	Government - Treatment plant site	Is the site flood prone?  - Non-flood prone area - Flood prone area		1. Kindly refer to secondary documents specifying the topography of the area.  2. Alternatively, you can ask your city municipal planner or the city engineer.							Y	
155	Government - Treatment plant site	At what depth is the ground water available in the site?  - Less than 3m - 3m to 5m - greater than 5m		1. Kindly refer to the documents of the water supply and sewerage department in the city or approach the chief engineer of the department.  2. You can also get this information from the							Y	



#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
				city documents or website or by approaching your city engineer.								
156	Government - Treatment plant site	<p>What is the % of slope at the site?</p> <ul style="list-style-type: none"> <li>- Less than 5%</li> <li>- 5% to 25%</li> <li>- greater than 25%</li> </ul>		<p>1. Kindly refer to the secondary documents specifying the topography details of the area.</p> <p>2. You can also get this information from the city documents or website by approaching your city engineer.</p>							Y	
157	Government - Treatment plant site	<p>What is the soil type at the site?</p> <ul style="list-style-type: none"> <li>- clayey</li> <li>- silty</li> <li>- sandy</li> <li>- gravelly</li> <li>- rocky</li> </ul>		<p>1. Kindly refer to the documents published by the geological survey department to identify the soil type at the site.</p> <p>2. If secondary data not available, then you need to conduct a soil profile test to identify the soil type at the site.</p>							Y	
158	Government - Treatment plant site	<p>What are the end use possibilities in the city/neighborhood?</p> <ul style="list-style-type: none"> <li>- Human urine as fertilizers for crops (or)</li> <li>- Dried human feces as fertilizer for crops (or)</li> <li>- None</li> </ul>		<p>1. Kindly refer to sanitation related documents published by local or international organizations (urban local bodies, NGOs, donor agencies, etc.) which focuses on the reuse scenario of fecal sludge in the city.</p> <p>2. If data is not available in the secondary documents, approach the chief engineer of the city.</p>							Y	
159	Government - Treatment plant site	<p>What is the operational capacity/preference of the user for maintenance of the system?</p> <ul style="list-style-type: none"> <li>- High</li> </ul>		Kindly approach the city municipal officials or development authority officials to understand their perspective on the operations and maintenance requirement of the treatment plant.							Y	

#	Q category	Questions	Hints	Data collection protocol	R P1	RP 2	RP 3	RP 4	RP 5A	RP 5B	RP 5C	RP 6
		- Moderate - Low										
160	Government - Treatment plant site	What is the level of dependency on availability of electricity for operation of the system?  - High - Moderate - Low		Kindly approach the city municipal officials or development authority officials to understand their perspective on the electricity requirements for operations and maintenance of the treatment plant.							Y	
161	Government - Treatment plant site	Is there any treatment location in the neighborhood within 15 km from the city?		1. Kindly refer to the land use map for that particular neighborhood to identify the presence of any treatment plant within the given distance. 2. If data not received from land use map, then ask your city municipal engineer about the presence of a treatment plant within the specified distance.								Y
162	Government - Treatment plant site	What is the GPS location of existing treatment infrastructure in the neighborhood?										Y
163	Government - Treatment plant site	What is the total treatment capacity of the treatment plant?		Kindly ask your city municipal engineer about the plant details. If the treatment plant was constructed by a private organization, approach the chief engineer of the private organization to obtain this information.								Y
164	Government - Treatment plant site	What is the current utilization capacity of the treatment plant?		Kindly ask your city municipal engineer about the plant details. If the treatment plant was constructed by a private organization, approach the chief engineer of the private organization to obtain this information.								Y