



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 technology identification

RP6 Regional treatment infrastructure

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

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
1.	City Basic Information	Total population of the city.			 Kindly refer to the city specific Census (population and housing) document. You can also find this data on the city website. 	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Y
2.	City Basic Information	Total households in the city.			 Kindly refer to the city Census document to identify the average household size in the city. Divide the total population by the average household size to identify the total number of households in the city. 	Υ	Y	Y	Y	Y	Y	Y	Y
3.	City Basic Information	Total commercial properties in the city		Commercial - office, shopping complex, theatres, hotels, restaurants, marriage halls etc.	1. Kindly refer to the city website or in official documents (particularly tax/trade license documents) to establish the number of total commercial holdings in the city. 2. If data has not been provided on the city website or in official documents, kindly approach the city engineer or planner to establish the total number of commercial buildings in the city	Υ	Υ	Υ	Υ	Y	Υ	Υ	Y
4.	City Basic Information	Ratio of men to women in the city			Kindly refer the city specific demographic Census document.	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
5.	City Basic Information	Average size of the household			Kindly refer the city Census document to identify the average household size in the city. If the	Y	Υ	Υ	Υ	Y	Υ	Υ	Υ

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
					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.								
6.	City Basic Information	Total number of public areas in the city? -Public transport areas: Bus stop, railway stations, subway transit etcCommercial hotspots such as local markets -Public spaces: parks, playgrounds, areas demarcated for public events.			 Kindly refer to the city or city development authority website or documents to get the number of total public places in the city. If data is not provided in the city website or documents, then approach your city engineer or planner to get the total number of public places in the city. 	Y	Y	Y	Υ	Y	Y	Y	Y
7.	City Basic Information	Total floating population of the city?			 Kindly refer to the city specific floating population Census document. You may also get this data from the city planner or the city engineer. 	Y	Y	Y	Y	Y	Y	Y	Υ
8.	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.	У	У						

		What is the projected		Use these values in simple online	У				
0	City Basic	population of the city?		calculators such as					
9.	Information	(projected by at least 10		http://www.metamorphosisalpha.					
		years)		com/ias/population.php for					

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
					arriving at simple population projection for the city.							,	
10.	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.	У							
11.	Household	Introduction section - notes to read				Y							
12.	Household	Name of the family head	_			Υ							
13.	Household	Phone number of the family head				Υ							

4	Ocatogory	Questions	Options	Hints								RP	i
#	Q category	Questions	Options		1	2	3	4	5	6	7	8	ı

14.	Household	Address of the household (flat name, flat number, door number, street name, location name, city name, pin code, ward number, zone number)			Y			
15.	Household	What is the building type? Single Family House Apartment House Multi-family House in a single plot large building divided into many separate tenements offering basic accommodation Hut Others, please specify	This is an observation question.		Y			
16.	Household	What is the size (carpet area) of the respondent's household?		If the household is unwilling to respond, observe the size of the household and provide an approximate response.	Y			
17.	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.			Y			

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
		 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. 											
18.	Household	Is this your own house? Yes No				Υ							

19.	Household	Which of these items do you own at home? - Electricity connection (metered) - Ceiling fan - LPG stove - Bicycle - Two wheeler/motorcycle/scoot er - Color TV - Refrigerator	Please observe and also ask response from the respondent.	у		
		- Color TV				
		van/tractor,				

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP							
	Q category	Questions	Оршоно			1	2	3	4	5	6	7	8
		any four wheeler											
		- Air conditioner											
		- Landline											
		- Mobile											
		- Internet connection											1
		- Radio											1
		- Livestock											

20.	Household	What is the type of the house - Made of bricks, stones, cement and steel - Made of mud, hay, bamboo, twigs or leaves - A mix of both	This is an observation question.	У				
21.	Household	Considering all sources of income, what would be the annual income for your household?	This is an optional question.	У				
22.	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)		У				
23.	Household	Is this source of water inside or outside the		У				

4	Ocatogory	Questions	Ontions	Hints	Data Collection Protocol	RP							RP
#	Q category	Questions	Options			1	2	3	4	5	6	7	8

		household premises? - Water source is within the Household - Water source is outside the household								
24.	Household	Do you have <u>a</u> fully functional toilet in your house?	Yes or No		У	У	У	У	У	У
25.	Household	If no, do you have access to community toilet?	Applicable only If Q19 = "No";		У					
26.	Household	Is it a dry toilet?	Applicable only If Q19 = "Yes";		у					
27.	Household	Is the toilet connected to a single pit sanitation system?	Applicable only If Q19 = "Yes";		У					
28.	Household	Does the household have space to construct additional pits near the existing toilet facility?	Applicable Only If Q22 = "Yes";	During the interview, kindly use your observation skills to triangulate and obtain the answer.	У					

		What is	s the type of toilet			У				
		user int	terface?	Applicable						
29.	Household	-	Dry Toilet	only If Q19						
		-	Urine Diverting Dry	= "Yes"						
		toilet								

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
		Pour Flush ToiletCistern Flush ToiletUrine Diverting FlushToilet											

30.	Household	What is the type of onsite sanitation system in your household? 1. No onsite container, toilet discharges directly to destination given in Tech B 2. Septic tank 3. Fully lined tank (sealed) 4. Lined tank with impermeable walls and open bottom 5. Lined pit with semipermeable walls and open bottom 6. Unlined pit 7. Pit (all types), never emptied but abandoned when full and covered with soil 8. Pit (all types), never emptied but abandoned when full and NOT adequately covered with soil 9. Toilet failed, damaged, collapsed or flooded.		There are several ways in which to response to this question could be elicited from the respondent Request the respondent recall the containment type by looking at the reference images provided in the mobile app Request the respondent recontact any other knowledgeable respondent of the house If none of them are awarn attempt looking at the containment system and guess the type of the system.	e o d o		У	y	У		У	У
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4	Ocatogory	Questions	Ontions	Hints								RP
#	Q category	Questions	Options		1	2	3	4	5	6	7	8

		10. Containment (septic tank or tank or pit latrine) failed, damaged, collapsed or flooded 11. Open defecation	
1.	Household	Identify the type of technology to which the on-site sanitation system is connected in your property? 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 8. To open ground 9. To 'don't know	Applicable only if Q19 = "Yes"
		storm sewer. 7. To water body 8. To open ground 9. To 'don't know where' 10. No outlet or	
2. 1	Household	overflow What is the total male population in your household (including children)?	

22	Household	What is the total female		У	У	У	У		У
33.	Household	population in your							

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
		household (including children)?											
34.	Household	Do all members of your household make use of the household/community toilet?	Yes or No			У		У	у	У		у	У
35.	Household	How many male members access them?	Applicable only if Q28 = no			У		у	у	у		У	У
36.	Household	How many female members access them?	Applicable only if Q28 = no			У		У	У	У		У	У
37.	Household	Is there a single piece of land in the household for construction/reconstruction of toilet?	If Q19 = No or Q21 = "Yes" or Q23 = "No";			У							
38.	Household	What is the size of land parcel available at the household?	Applicable only if Q31 = Yes		Observe the site to identify the size of the land available.	У							

39.	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?	Applicable only if Q19 = No		У					
40.	Household	GPS location of the household?			У	У	У	У	У	У

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
43.		applicable only for those hou pilet construction is feasible (b)	/					
44.	Household	What do you think is the general water availability for toilet usage in your property? - Water unavailable for toilet usage - 1 small bucket of water per use (5L per use) - 1 medium bucket of water per use) - 1 large bucket of water per use)				У							
45.	Household	What is the predominant water sourcing method in your property? - Piped water connection supplied through household overhead tank (or) - Other methods (fetched, hand pump, standpipe, tanker)				У							
46.	Household	What are the end use possibilities of sanitation products in the city/neighborhood? -Human urine as fertilizers for crops		Do not suggest or preempt answers.		У							

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
		(or) - Dried human feces as fertilizer for crops (or) - None											
45.	Household	Are the household members comfortable about using two different compartments in the toilet user interface regularly? (Images to be shown alongside)	Yes or No	Do not suggest or preempt answers.		У							
46.	Household	What is the preferred anal cleansing method for the household (water/soft paper/others)?				У							
47.	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?				У							
48.	Household	Is the site flood prone? - Non-flood prone area - Flood prone area		Do not suggest or preempt answers.		у							

		At what depth is the	Do not suggest	У				
4	Household	ground water available	or preempt					
4	7. Household	in the site? - Less than	answers.					
		2m						

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
		- 2m to 5m - greater than 5m											
50.	Household	What is the % of slope at the site? - Less than 5% - 5% to 25% - greater than 25%		Do not suggest or preempt answers.		У							
51.	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.		У							
52.	Household	What is the soil type at the site? - clayey - silty - sandy - gravelly - rocky		Do not suggest or preempt answers.		У							

53.	Household	What is the operational capacity/preference of the user for maintenance of the system? - High - Moderate - Low		Do not suggest or preempt answers.	У				
54.	Household	Is the toilet user comfortable about using	Yes or No	Do not suggest or preempt	У				

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP							
	` ,		· ·			1	2	3	4	5	6	7	8
		two different		answers.									1
		compartments (for											ĺ
		disposal of urine and											ĺ
		faecal sludge) at the											1
		facility regularly?											

55.	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).			У					
56.	Community toilets	GPS location of operational community toilet.			У	У	У	У		Υ
57.	Community toilets	Ward number and zone number of the community toilet.			У					
58.	Community toilets	Select the types of toilet user interface available in this community toilet facility for men? (Dry toilet, Urine Diverting Dry		Kindly approach the chairperson of the community based organization or the person responsible for maintaining the toilet. Also you can triangulate this	У					

ŧ	Q category	Questions	Options	Hints								RP
#	Q category	Questions	Options		1	2	3	4	5	6	7	8

59.	Community toilets	Toilet, Pour Flush Toilet, Cistern Flush Toilet, Urine Diverting Flush Toilet, others please specify) 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 group of residents or an entire settlement. Community toilet blocks are used primarily in low-income		у			
		numbers against each typology selected in the previous question)	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.				

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP							
"	Q category	Questions	Options			1	2	3	4	5	6	7	8
60.	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. Also you can triangulate this information by observing the type of toilet user interface available.	У							
61.	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.	У							
62.	Community toilets	How many households are dependent on this community toilet facility?			Kindly approach the chairperson of the community based organization or the person responsible for maintaining the toilet to know the number of households dependent on the community toilet	У		У	У	У			Υ

:	# Q	(category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP	RP 4	RP 5	RP	RP 7	RP 8
6	i3.	Community toilets	sanitation system in the community toilet facility? 1. No onsite container,			the response to this question could be elicited from the respondent Request the respondent	,		,	,	y			
			What is the type of onsite			There are several ways in which	V		V	٧	٧			Υ

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
64.	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 8. To open ground 9. To 'don't know where' 10. No outlet or overflow				У		У	У	У			Y

desludged by manual methods only

Data Collection Protocol

RP

RP

RP

RP

RP

RP

RP

Hints

Options

Q category

Questions

66.	Community toilets	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 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) 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)			Observe whether the toilet can be easily accessed as per the given options.				y	y			
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#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
67.	Community toilets	What is your preferred mode of desludging service? - Manual desludging service - Semi-mechanized desludging service - Mechanized desludging service		Please elicit the response from the respondent only. Do not suggest or preempt answers.					У	У			
68.	Government - Community Toilets	GPS location of vacant land (government property/can be mobilized by the government) available for construction of community toilets?				У							
69.	Government - Community Toilets	Size of vacant land (government property/can be mobilized by the government) available for construction of community toilets?				У							

		What do you think is the			У				
		potential water							ì
	Covernment	availability for toilet							i
70.	Government - Community	usage in this location							i
70.	Toilets	available for construction							i
	Tollets	of community toilet? -							i
		Water unavailable for							i
		toilet usage							

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
		- 1 small bucket of water per use (5L per use) - 1 medium bucket of water per use (5-10L per use) - 1 large bucket of water per use (10-15L per use)											

71.	Government - Community Toilets	What do you think is the potential water sourcing method in this location available for construction of community toilet? - Piped water connection supplied through overhead tank (or) - Other methods (fetched, hand pump, standpipe, open tank at floor level)		
72.	Government - Community Toilets	What are the end use possibilities of sanitation products in the city/neighborhood? - Human urine as fertilizers for crops (or) - Dried human feces as fertilizer for crops (or) - None	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 faecal sludge in the city. 2. If data is not available in the secondary documents, kindly approach the chief engineer of the city.	

#	Q category	Questions	Options	Hints								RP
#	Q category	Questions	Options		1	2	3	4	5	6	7	8

73.	Government - Community Toilets	Are the households in this locality comfortable about using two different compartments in the toilet user interface regularly? (images to be shown alongside)	Yes or No	Kindly conduct a primary survey to understand the behavior and preference of users.	У		
74.	Government - Community Toilets	What is the preferred anal cleansing method for households in the neighborhood? (Water/Soft paper/others)		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 2 Conduct Key informant interviews with local NGOs working in the sanitation sector.	У		
75.	Government - Community Toilets	Is the proposed community toilet site flood prone? - Non-flood prone area - Flood prone area		 Kindly refer to secondary documents specifying the topography of the area. Conduct Key informant interviews with the city municipal planner, the city engineer or the locals of the area. 	У		
76.	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		 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. You can also get this information from the city 	У		

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
					documents or website or by talking to the city engineer.								
77.	Government - Community Toilets	What is the % of slope at the proposed community toilet site? - Less than 5% - 5% to 25% - greater than 25%			 Kindly refer to the secondary documents specifying the topography details of the area. You can also get this information from the city documents or website or by talking to the city engineer. You may also find this information while speaking to a few locals in the city. 	У							
78.	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 (greater than 6m)			Kindly measure the road width of the access road to the site.	у							

79 Co	overnment Community Toilets	What is the soil type at the proposed community toilet site? - clayey - silty - sandy - gravelly - rocky			 Kindly refer to the documents published by the geological survey department to identify the soil type at the site. If secondary data not available, then you need to conduct a soil profile test to identify the soil type at the site. 	У							
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#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
80.	Government - Community Toilets	What is the operational capacity/preference of the user for maintenance of the system? - High - Moderate - Low			Kindly approach the households in the community to understand their perspective on the operations and maintenance requirement of the system.	У							
81.	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	У							
82.	Assumptions	Benchmark – At least 1 community toilet seat should be constructed for every male population			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.	У							

		Benchmark –		У				
83.	Assumptions	At least 1 community toilet seat should be constructed for every female population						
84.	Assumptions	Benchmark – maximum distance (m) that can be travelled by any household to access the community toilet facility		У				

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
85.	Assumptions	Benchmark – minimum land required for construction of 1 community toilet seat (for every toilet technology)				У							

86.	City Basic Information	Total number of public areas in the city? -Public transport areas: Bus stop, railway stations, subway transit etcCommercial hotspots such as local markets - Public spaces: parks, playgrounds, areas demarcated for public events.	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 engineer or planner to get the total number of public places in the city.	У			
87.	City Basic Information	Total floating population of the city	 Kindly refer to the city specific floating population census document. You may also get this data from the city planner or the city engineer. 	у			
88.	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.	У			

	Ocatogory	Questions	Ontions	Hints								RP
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89.	Public places	What is the type of the public area (railway stations, public transit area, market, bus station, park, playground, others please specify)?		У			
90.	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. Also alternatively you can approach a few local shops to have a rough estimate on the average floating population for that particular location.	У			
91.	Public places	Mark the GPS location of the 4 corner point of this public area?		Υ			
92.	Public places	Ward number and zone number of the public place?		Υ			

93.	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		У						
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#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
94.	Public places	What % of the floating population is women?			 Kindly refer to the city specific floating population Census document. You may also get this data from the city planner or the city engineer 		У						
95.	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 the location.		у						
96.	Public places	What is the GPS location of the public toilet facility?					У	У	У	У			У

97.	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				
98	. 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)		this information by observing the number of seats in the public toilet.	У			
99	. Public places	Select the types of toilet user interface available in this public toilet for			У			

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP							
"	Q category	Questions	Options			1	2	3	4	5	6	7	8
		women? (Dry toilet,											
		Urine Diverting Dry											
		Toilet, Pour Flush Toilet,											
		Cistern Flush Toilet, Urine											
		Diverting Flush Toilet,											
		others please specify)											

100	. 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) What is the type of		There are several ways in which	У	У	У	у		У
101	Public places	onsite sanitation system in the public toilet facility? 1. No onsite container, toilet discharges directly to destination given in Tech B 2. Septic tank 3. Fully lined tank (sealed) 4. Lined tank with impermeable walls and open bottom 5. Lined pit with semipermeable walls and open bottom		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 • Request the respondent to contact any other knowledgeable respondent of the house • If none of them are aware, attempt looking at the containment system and			,			

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP							
#	Q category	Questions	Options			1	2	3	4	5	6	7	8

	6. Unlined pit 7. Pit (all types), never emptied but abandoned when full and covered with soil 8. Pit (all types), never emptied but abandoned when full and NOT 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.		guess the type of the system. Here is a link to type of containment systems.						
102. Public places	Open defecation Identify the type of technology to which the onsite sanitation system is connected in the public toilet facility: 1. To centralized combined sewer 2. To centralized foul/separate sewer 3. To decentralized combined sewer			У	У	У	У		У

4. To decentralized foul/separate sewer	k	

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
		 5. To soak pit 6. To open drain or storm sewer. 7. To water body 8. To open ground 9. To 'don't know where' 10. No outlet or overflow 											
103	3. 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.			У	У	у			У

104	. Public places	At what distance can this property be accessed from the road by a mechanized tank? · Within 100feet · Within 200feet · Within 300feet · 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.		У	У		
105	. Public places	Can the Onsite Sanitation System (OSS) be easily accessed within the premise? Can be easily accessed upon reaching the premise (the chambers of the OSS	Kindly observe whether the toilet can be easily accessed as per the given options.		У	У		

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP							
"	Q category	Questions	Options			1	2	3	4	5	6	7	8

		have manholes covered							
		with slabs and can be							
		moved easily)							
		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)							
		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)							
		What is your preferred	Do not suggest			t	t		
		mode of desludging	or preempt						
		service?	answers.						
		- Manual	answers.						
106	. Public places	desludging service							
-00	abiic piaces	- Semi-mechanized							
		desludging service -							
		Mechanized desludging							
		service							
		3EI VICE							

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP	RP	RP	RP	RP	RP	RP 7	RP
107	Government public toilets	GPS location of vacant land (government property/can be mobilized by the government) available for construction of public toilets.				1	у У	3	4	5	6		8
108	Government public toilets	Size of vacant land (government property/can be mobilized by the government) available for construction of public toilets.					у						

		What do you think is the potential water availability for toilet usage in this location available for construction of public toilet?			У			
109.	Government - public toilets	- Water unavailable for toilet usage - 1 small bucket of water per use (5L per use) - 1 medium bucket of water per use (5-10L per use) - 1 large bucket of water per use (10-15L per use)						

Data Collection Protocol

RP

RP

RP

RP

RP 5 RP 6 RP

RP

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Hints

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Q category

Questions

110	Government public toilets	What do you think is the potential water sourcing method in this location available for construction of public toilet? - Piped water connection supplied through overhead tank (or) - Other methods (fetched, hand pump, standpipe, open tank at floor level)			У			
111	Government public toilets	What are the end use possibilities of sanitation products in the city/neighborhood? - Human urine as fertilizers for crops (or) - Dried human feces as fertilizer for crops (or) - None		Undertake Key informant interviews with the chief/city engineer.	У			
112	Government public toilets	Is the floating population in this locality comfortable about using two different compartments as the toilet user interface regularly?	Yes or No	Kindly conduct a primary survey to understand the behavior and preference of users.	У			

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
113	Government public toilets	What is the preferred anal cleansing method for floating population in the neighborhood (water/soft paper/others)?			Consult the local NGOs in the sector.		У						
114	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).					У						

115	Government public toilets	(If Q19 > 1 option, then) what is the level of preference of each of these shortlisted toilet user interfaces in this location? {collect % values for each of the shortlisted options from Q19}						У							
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#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
116	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.		У						
117	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			 Kindly refer to the documents of the water supply and sewerage department in the city or talk to the chief engineer of the department. You can also get this information from city documents or website or talk to the city engineer. 		У						

118	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%.	 Kindly refer to the secondary documents specifying the topography details of the area. You can also get this information from city documents or website or talk to the city engineer 	У			
119	Government public toilets	What is the vehicular accessibility to the proposed public toilet site? - No access (less than 3m)		Kindly measure the road width of the access road to the site.	У			

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
		- limited/narrow (3m - 6m)											
		- Full access (greater than 6m)											

120	Government public toilets	What is the soil type at the proposed public toilet site? - clayey - silty - sandy - gravelly - rocky		 Kindly refer to the documents of geological survey department to identify the soil type at the site. If secondary data is not available, then you need to conduct a soil profile test to identify the soil type at the site. 	У			
121	Government public toilets	What is the operational capacity/preference of the user for maintenance of the system? - High - Moderate - Low		Approach the city officials or the development authority officials to understand their perspective on the operations and maintenance requirements of the system.	У			
122	Government public toilets	Is the toilet user comfortable about using two different compartments (for disposal of urine and faecal sludge) at the proposed public toilet site regularly?	Yes or No	Kindly conduct primary survey to understand the behavior and preference of users.	У			
123	Government public toilets	Based on the previous responses, here is a shortlist of onsite			У			

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP							
#	Q category	Questions	Options			1	2	3	4	5	6	7	8

124	. Assumptions	and decision based on quality) Benchmark — At least 1 Public toilet seat should be constructed for every male 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	У			
125	. Assumptions	population Benchmark — At least 1 Public toilet seat should be constructed for every female population			У			

126.		Benchmark – maximum distance (m) that can be travelled by any person to access the public toilet facility					У						
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#	Q category	Questions	Options	Hints	Data Collection Protocol	RP	RP	RP	RP 4	RP	RP 6	RP 7	RP
127	. Assumptions	Benchmark – minimum land required for construction of 1				_	2 y	3	7	5	0		8
		public toilet seat (for every toilet technology)											
128	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			У	У	У			У
					average size of household.								l

Commercial, Institutional 129. and Industrial Buildings	nal Institutional - schools, universities, prisons, government buildings, religious buildings such as					У	У	У			У
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#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
130	Commercial, Institutional D. and Industrial Buildings	Does the commercial/institutional/industrial building have access to toilet facility within the premises in operational condition?	Yes or no					У	У	У			У
13:	Commercial, Institutional and Industrial	What is the GPS location of the building						У	У	Y			У

	Buildings									
132	Commercial, Institutional . and Industrial Buildings	On an average, how many people make use of the toilet facility for defecation purpose only?				У	У	У		У
133	Commercial, Institutional . and Industrial Buildings	Identify the type of onsite sanitation system in your property? 1. No onsite container, toilet discharges directly to destination given in Tech B 2. Septic tank 3. Fully lined tank (sealed) 4. Lined tank with impermeable walls and open bottom 5. Lined pit with semi-		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 • Request the respondent to contact any other knowledgeable respondent of the house	Y	,	У	У		У

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP					RP			
#	Q category	Questions	Options			1	2	3	4	5	6	7	8	

		permeable walls and open bottom 6. Unlined pit 7. Pit (all types), never emptied but abandoned when full and covered with soil 8. Pit (all types), never emptied but abandoned when full and NOT adequately covered with soil 9. Toilet failed, damaged, collapsed or flooded.		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.						
		10. Containment (septic tank or tank or pit latrine) failed, damaged, collapsed or flooded 11. Open defecation								
134	Commercial, Institutional . and Industrial Buildings	Identify the type of technology to which the onsite sanitation system is connected in your property? 1. To centralized combined sewer 2. To centralized foul/separate sewer 3. To				У	У	У		У

decentralized combined sewer						

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8	
		 To decentralized foul/separate sewer To soak pit To open drain or storm sewer. To water body To open ground To 'don't know where' No outlet or overflow 												

135.	. Assumptions	Generation rate per person per day by onsite sanitation system technology (from benchmark table).	Refer to your country star published by the national government. Alternatively with sanitation experts to understand preferred ben that suits your city sanitat landscape.	y, consult nchmarks	У	У	У		У
136	. Household	At what distance can this property be accessed from the road by a mechanized tank? · Within 100feet · Within 200feet · Within 300feet · Cannot be accessed by trucks and can be desludged by manual methods only	Note down the distance of toilets from the nearest acroad which can accommod vaccutug.	ccess		У	У		
137	. Household	Can the On-site Sanitation System (OSS) be easily accessed within	Kindly observe whether the can be easily accessed as given options.			у	У		

4	Ocatogory	Questions	Ontions	Hints							RP	
#	Q category	Questions	Options		1	2	3	4	5	6	7	8

		the premise? Can be easily							
		accessed upon reaching the premise (the							
		chambers of the OSS							
		have manholes covered							
		with slabs and can be							l
		moved easily)							l
		Can be accessed							l
		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							l
		the OSS)							l
		Can be accessed							l
		with a lot of effort upon							1
		reaching the premise							1
		(the OSS is buried							l
		underground/placed							l
		right below the							l
		toilet/buried under soil in							
		the parking or play area)							
		What is your preferred	Do not suggest			У	У		
120	Household	mode of desludging	or preempt				-		
138.	nousenoia	service?	answers.						

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
		 Manual desludging service Semi-mechanized desludging service - Mechanized desludging service 											
139	Commercial, Institutional and Industrial Buildings	At what distance can this property be accessed from the road by a mechanized tank? · Within 100feet · Within 200feet · Within 300feet · 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.				У	У			

Options

Q category

Questions

		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) 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).							
141	Commercial, Institutional and Industrial Buildings	What is your preferred mode of desludging service? - Manual desludging service - Semi-mechanized desludging service - Mechanized desludging service	Do not suggest or preempt answers.			У	У		
142	Desludging Operator	A. Type of desludging vehicle (check vehicle types page)				у	у		

B. Capacity of desludging						

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP	RP	RP	RP	RP	RP 6	RP 7	RP
		vehicle in m3 C.				1	2	3	4	5	ь	/	8
		Number of units D.											
		Ability to access											
		properties by road											
		of width lesser than											
		3m											
		(Yes/No)											
		E. Ability to access											
		properties by road of											
		width greater than 3m											
		(Yes/No)											
		F. Maximum distance											
		from road that can be											
		serviced by expanding the											
		length of hose pipe (100											
		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											,

143	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 http://www.metamorpho sisalpha.com/ias/populat ion.php to calculate a simple population projection for the city		У		
144	Government Treatment plant site	Is there any habitation in less than 200m distance from the identified site?	Yes or no	 Kindly review the land use map for the city to identify the presence of any habitation within 200 meters radius of the identified 			У	

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
					site for treatment plant. 2. If a land use map is not available, then either talk to the city engineer to identify the presence of any nearby habitation or undertake site visits to check for any nearby habitation.								

145	Government Treatment plant site	Are there any water bodies in less than 200m distance from the identified site?	Yes or 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 either talk to the city engineer to identify the presence of any nearby water body or undertake site visits to check for any nearby water bodies.	
146	Government Treatment plant site	Is the identified site a wetland?	Yes or 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 either talk to the city engineer to identify the presence of any wetland or undertake a site visit.	
147	Government Treatment plant site	Is the identified site in a flood prone area?	Yes or no	1. Kindly review the land use map for the city to identify the presence of water bodies in the	

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP							RP	1
#	Q category	Questions	Options			1	2	3	4	5	6	7	8	1

				proximity to the identified site. 2. If a land use map is not available, then either talk to the city engineer to identify the possibility of flooding in the identified site.
148	Government 6 Treatment plant site	Is there an airport site (current/proposed) in less than 20Km distance from the identified site?	Yes or 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.
149	Government Treatment plant site	Is there a heritage site in less than 10Km distance from the identified site?	Yes or 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. 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 heritage sites in the neighborhood of identified treatment site.

	Government	Is the groundwater table		1. Kindly refer to the documents			У	
150	Treatment	less than 3m from the	Yes or no	of the water supply and sewerage				
	plant site	ground?		department in the city or by				

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP							
	,					1	2	3	4	5	6	7	8
					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.								
151	Government Treatment plant site	Is there a drainage channel available next to the identified site?	Yes or no								У		
152	Government Treatment plant site	Is the site flood prone? - Non-flood prone area - Flood prone area			 Kindly refer to secondary documents specifying the topography of the area. Alternatively, you can ask your city municipal planner or the city engineer. 							У	
153	Government Treatment plant site	At what depth is the ground water available in the site? - Less than 2m - 2m to 5m - greater than 5m			 Kindly refer to the documents of the water supply and sewerage department in the city or approach the chief engineer of the department. You can also get this information from the city documents or website or by approaching your city engineer. 								

154		What is the % of slope at the site? - Less than 5%	 Kindly refer to the secondary documents specifying the topography details of the area. You can also get this 				У	
	plant site	- 5% to 25%	information from the city					
		- greater than 25%	documents or website by					
			approaching your city engineer.					

#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
155	Government 5 Treatment plant site	What is the soil type at the site? - clayey - silty - sandy - gravelly - rocky			 Kindly refer to the documents published by the geological survey department to identify the soil type at the site. If secondary data not available, then you need to conduct a soil profile test to identify the soil type at the site. 							У	
156	Government 6 Treatment plant site	What are the end use possibilities in the city/neighborhood? - Human urine as fertilizers for crops (or) - Dried human feces as fertilizer for crops (or) - None			 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 faecal sludge in the city. If data is not available in the secondary documents, approach the chief engineer of the city. 							У	

157	Government Treatment plant site	What is the operational capacity/preference of the user for maintenance of the system? - High - Moderate - Low			Kindly approach the city municipal officials or development authority officials to understand their perspective on the operations and maintenance requirement of the treatment plant.							у	
158	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.							У	
#	Q category	Questions	Options	Hints	Data Collection Protocol	RP 1	RP 2	RP 3	RP 4	RP 5	RP 6	RP 7	RP 8
					Kindly refer to the land use map for that particular								у
159	Government Treatment plant site	Is there any treatment location in the neighborhood within 15 km from the city?			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.								

161	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				У
162	What is the current utilization capacity of the treatment plant?		constructed by a private organization, approach the chief engineer of the private organization to obtain this information.				У