performance assessment system

PAS/SLB e-Data

Guidelines for Online Tool for PAS/SLB Checklist and Target Setting

April 2023

CWAS CENTER FOR WATER AND SANITATION
CRDF CEPT RESEARCH AND DEVELOPMENT FOUNDATION
CEPT UNIVERSITY

PAS/SLB e-Data

Guidelines for Online Tool for

PAS/SLB Checklist and Target Setting

Center for Water and Sanitation

CRDF, CEPT University

April, 2023

Citation suggestion for this document:

Center for Water and Sanitation.(April, 2023). Ahmedabad: Guidelines for Online Tool for PAS/SLB Checklist and Target SettingCWAS – CRDF – CEPT University. Retrieved from https://cwas.org.in/cwas-resources/pas-slb-e-data-guidelines-for-online-tool-for-slb-checklist-and-target-setting

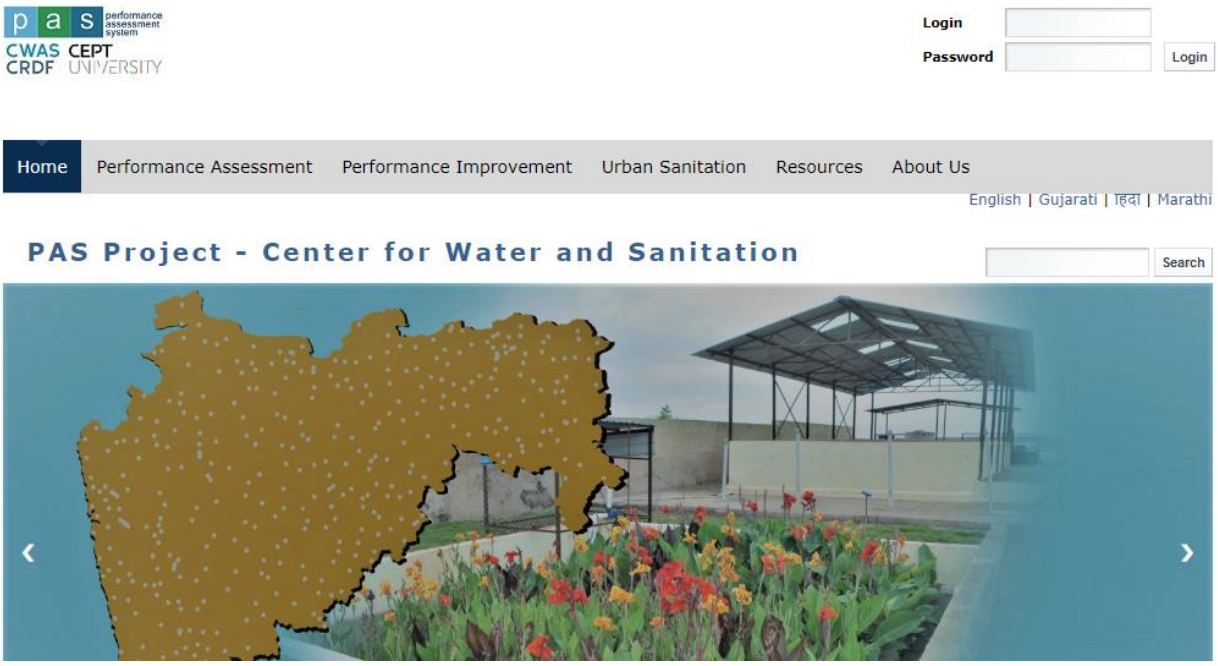
Contents

Welcome to SLB-PAS Online Performance Assessment Module

SLB-PAS module is an online tool to assess annual service performance of Urban Water Supply and Sanitation (UWSS) sectors. This tool is based on the guidelines developed by Ministry of Housing and Urban Affairs (MoHUA, earlier Ministry of Urban Development) for Service Level Benchmarks (SLB). The information helps to assess the current service levels of a city for water supply, wastewater management, storm water drainage and solid waste management, and to set targets for performance improvement. Implementation of this module was initiated in Gujarat and Maharashtra states in 2011 and then adopted by 4 other states (Chhattisgarh, Telangana, Jharkhand and Assam) and Smart cities of India. The portal supports 1000+ cities and has become a major repository of urban water and sanitation database in India.

The online SLB-PAS module is essentially a self-assessment tool to track performance level for water supply, wastewater management, solid waste management and storm water drainage sectors in India. The information must be filled online by Urban Local Bodies (ULBs). Key Performance Indicators (KPIs) for the current financial year along with the targets set for the next financial year are published by the state government through the state gazette. A series of capacity building workshops were carried out to build capacity of city officials and to validate entered information in online module. Now city officials are acquainted with the online module and enter information from their workplaces. State level team provides support to these cities for data collection and validation.

The SLB-PAS data module is currently hosted on the PAS Project web portal, www.pas.org.in. The portal also provides a graphical representation of the performance of services provided by each city and enables the city to track its progress over the years. The online SLB-PAS module is multi-lingual, and can be read in English, Gujarati, Hindi and Marathi for city users from each state.

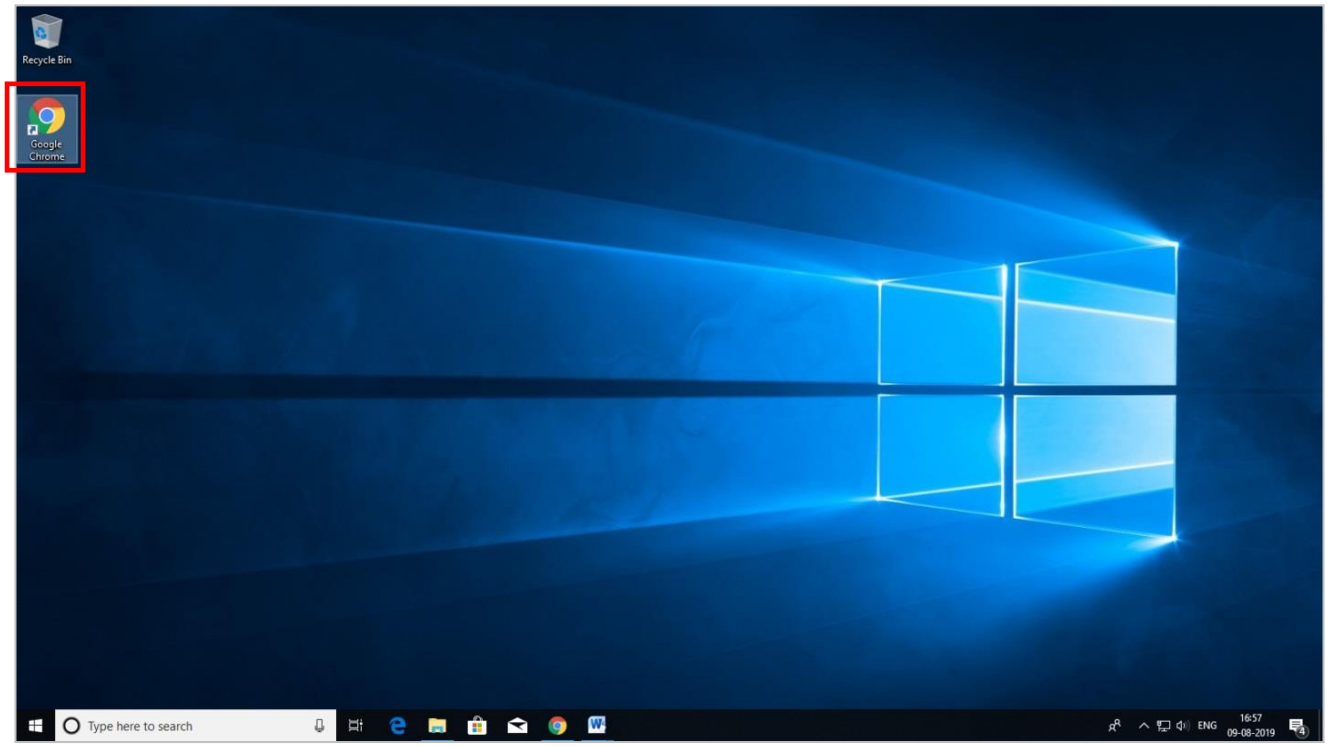


This User Guide has been developed to assist the ULBs and state level team for data entry and data validation through inbuilt checks in SLB-PAS online system. The annex 1 provides detailed guidance on possible sources of data that can be used to fill the data in the online SLB-PAS checklist and details of inbuilt data validation rules. The annex 2 provides details on data validation rules for SLB indicators and inbuilt data validation checks in online target setting module.

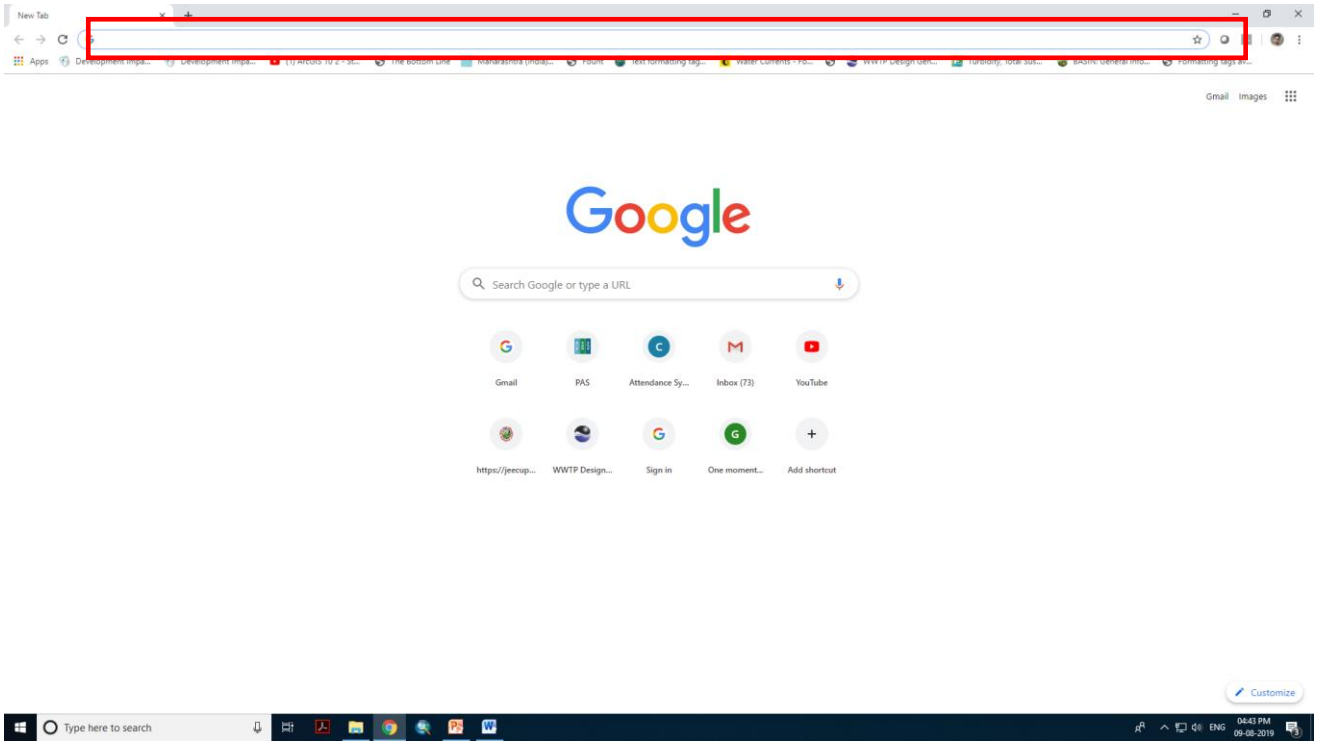
1. How to access your account

The guidelines will take one through the steps involved in accessing the PAS web portal and entering data in it.

STEP 1. : Double click on the internet browser installed in your system. The internet browser can be either Internet Explorer (version 7 or above), Google Chrome, Mozilla Firefox etc.



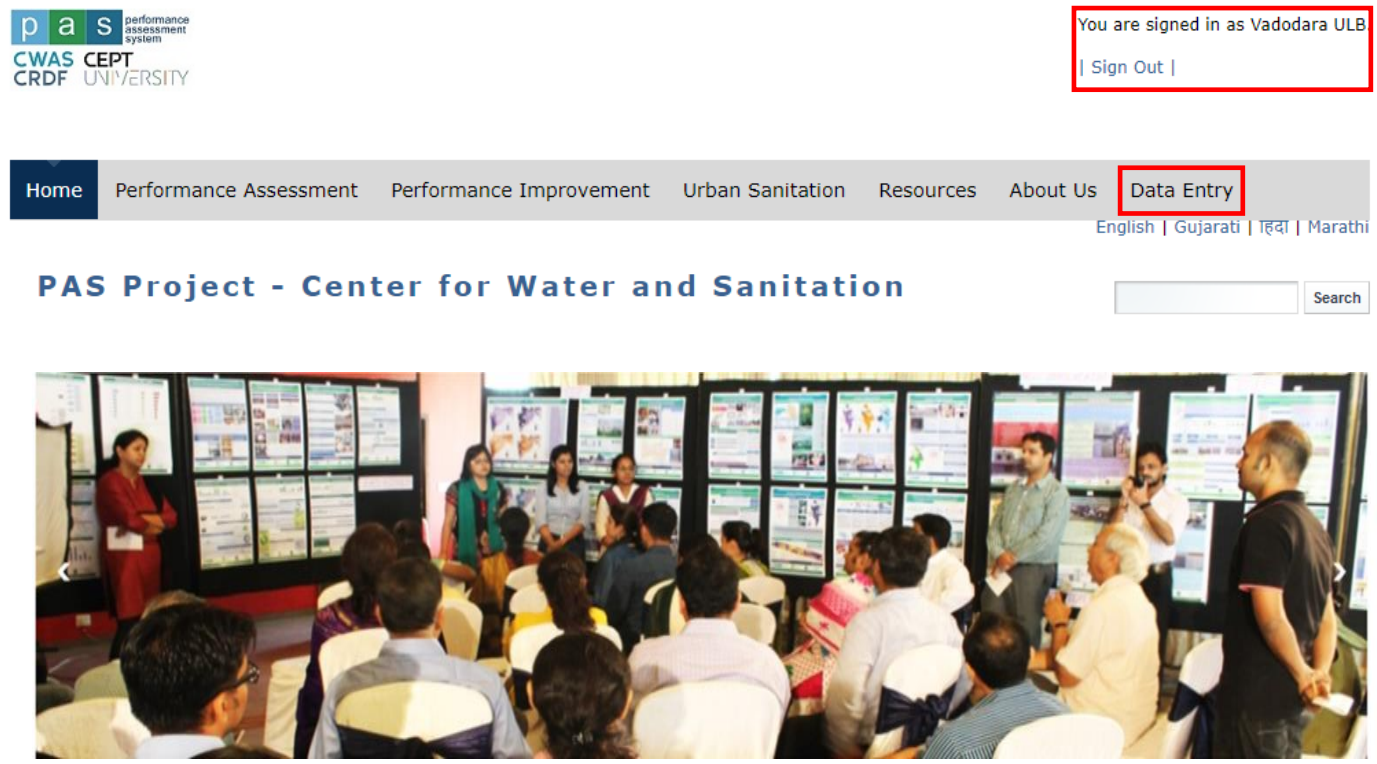
STEP 2. A window opens as shown below. Type the website address, www.pas.org.in, in the address tab highlighted below.



STEP 3. The PAS web portal opens as shown below. To enter data online, the ULB has to login using its username and password within the boxes (highlighted below) on the top right-hand side of the page.

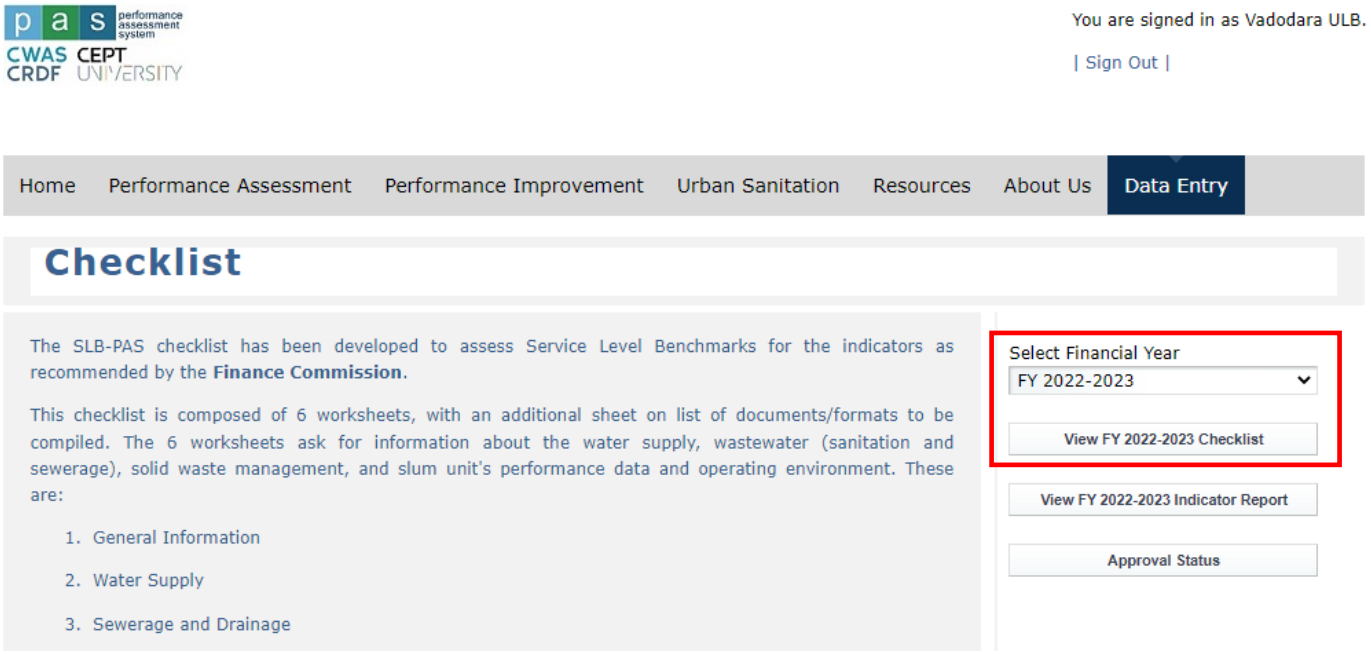
2. How to enter data in the online checklist

STEP 1. Once the ULB logs into the web portal, the name of the ULB appears on the right-hand side of the page. A Data Entry tab also appears as seen below. Click on the Data Entry tab.

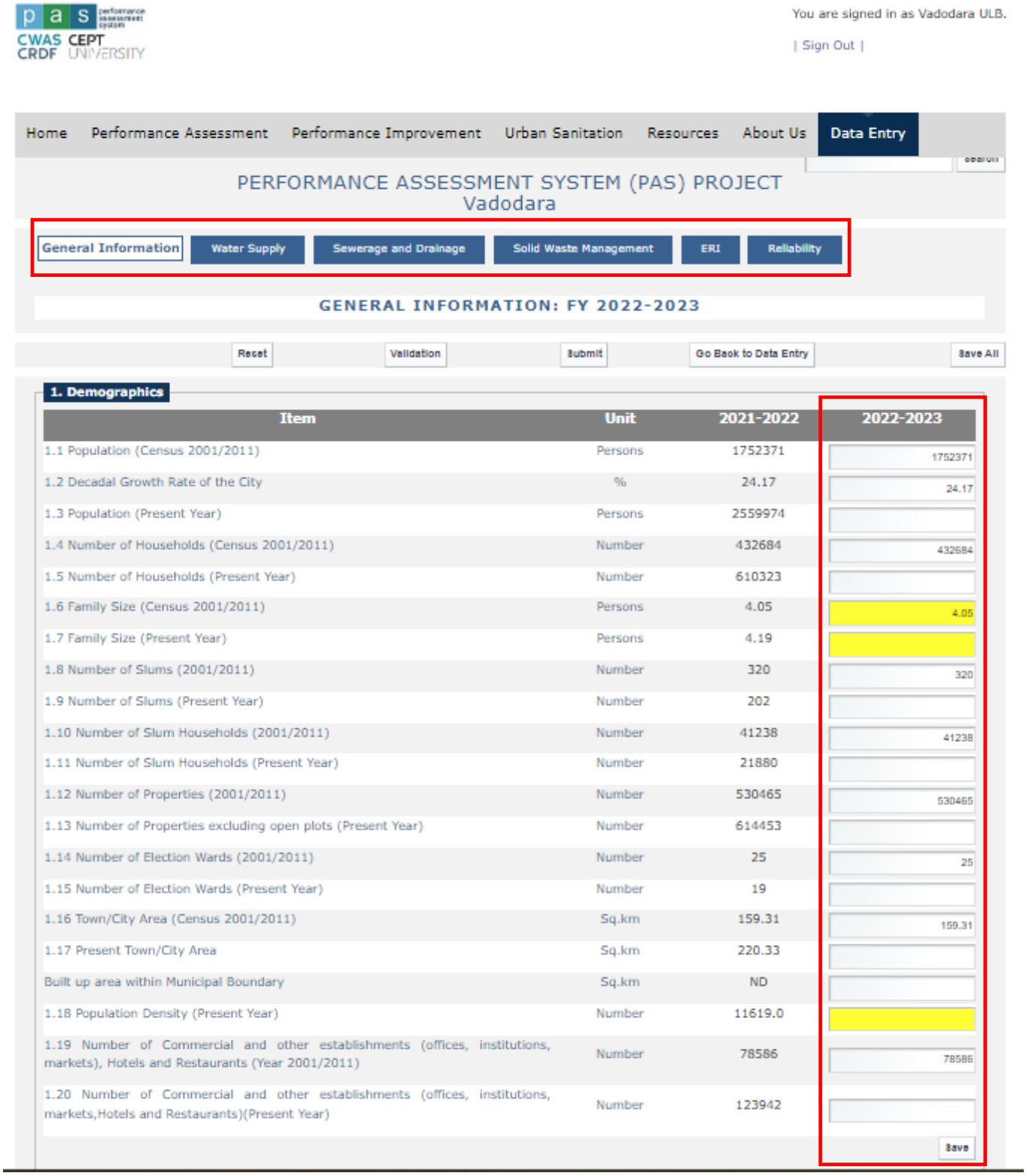


STEP 2. A sub-menu appears in which two tabs, Checklist and Target Setting, are provided. Click on the Checklist tab

STEP 3. A page describing the format of the online checklist opens. Please read through the general instructions given here for ease in data entry. Select the Financial Year, for example 2022-23. Click on the 'View FY 2022-2023 Checklist tab'. Please note that the indicator report for the particular year would be generated only after the data for 2022-23 is submitted by the ULB.



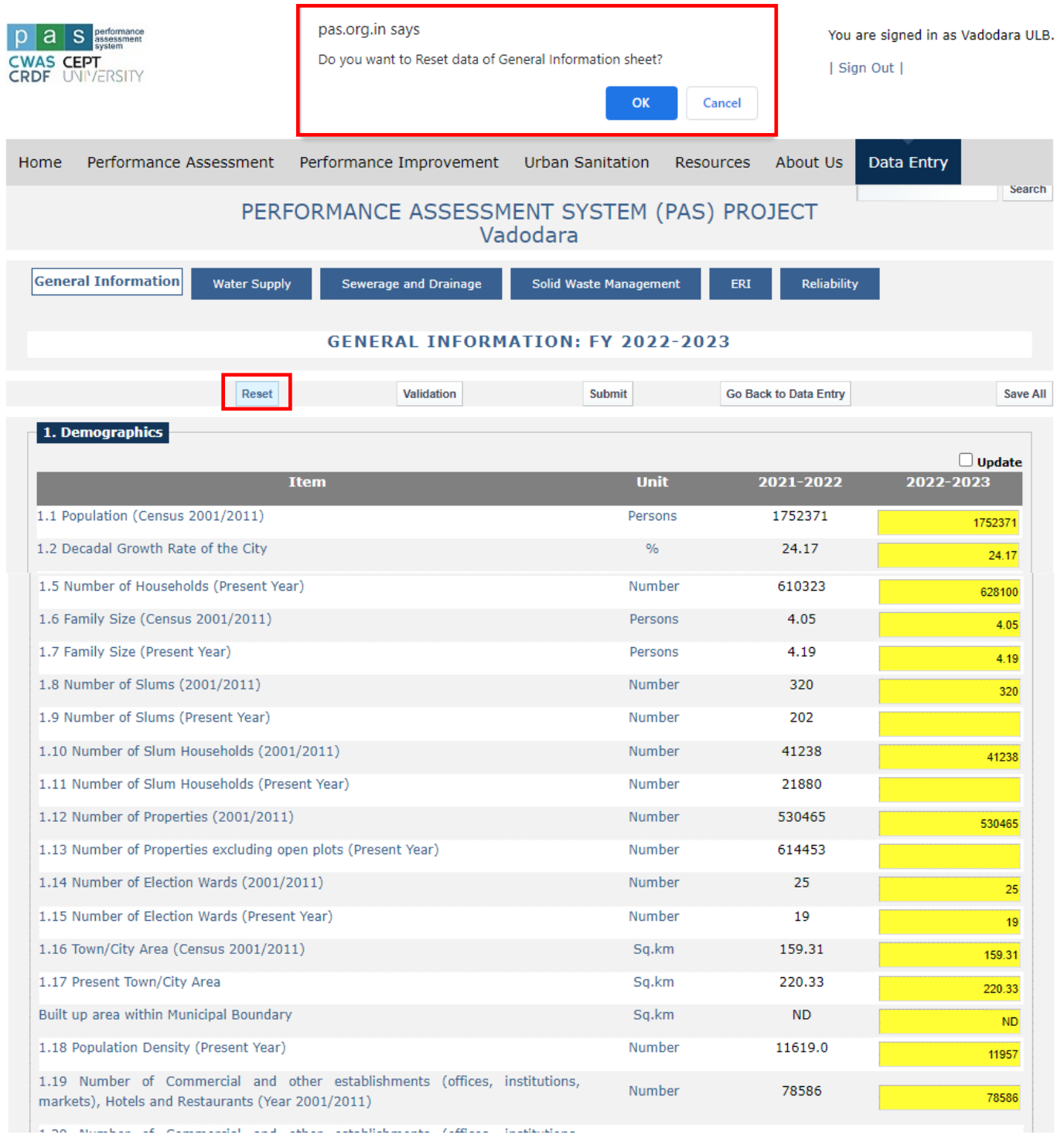
STEP 4. The checklist with tabs for each sub-section, like General Information, Water Supply etc. is displayed. The white cells are for data entry, while the yellow cells indicate the data that is pre-populated or calculated and cannot be edited. Subsequent sections on water supply, etc. can be entered in the same manner. Possible data sources for checklist are given in annex 1.



Item	Unit	2021-2022	2022-2023
1.1 Population (Census 2001/2011)	Persons	1752371	1752371
1.2 Decadal Growth Rate of the City	%	24.17	24.17
1.3 Population (Present Year)	Persons	2559974	
1.4 Number of Households (Census 2001/2011)	Number	432684	432684
1.5 Number of Households (Present Year)	Number	610323	
1.6 Family Size (Census 2001/2011)	Persons	4.05	4.05
1.7 Family Size (Present Year)	Persons	4.19	
1.8 Number of Slums (2001/2011)	Number	320	320
1.9 Number of Slums (Present Year)	Number	202	
1.10 Number of Slum Households (2001/2011)	Number	41238	41238
1.11 Number of Slum Households (Present Year)	Number	21880	
1.12 Number of Properties (2001/2011)	Number	530465	530465
1.13 Number of Properties excluding open plots (Present Year)	Number	614453	
1.14 Number of Election Wards (2001/2011)	Number	25	25
1.15 Number of Election Wards (Present Year)	Number	19	
1.16 Town/City Area (Census 2001/2011)	Sq.km	159.31	159.31
1.17 Present Town/City Area	Sq.km	220.33	
Built up area within Municipal Boundary	Sq.km	ND	
1.18 Population Density (Present Year)	Number	11619.0	
1.19 Number of Commercial and other establishments (offices, institutions, markets), Hotels and Restaurants (Year 2001/2011)	Number	78586	78586
1.20 Number of Commercial and other establishments (offices, institutions, markets,Hotels and Restaurants)(Present Year)	Number	123942	

STEP 5. Once the data entry for a particular sub-section (e.g. Demographics in the previous image) is complete, click Save at the end of the sub-section (e.g. Demographics). ***It is advisable to save after each sub-section to ensure that data is not lost due to connectivity issues, etc.***

STEP 6. In case, there is any error in data entry for a sub-section (like water supply, etc.), click 'Reset' to erase the data for that particular page. An alert window opens to confirm whether to reset the data. *It must be noted that all data in that page will be erased once reset is selected.*



Item	Unit	2021-2022	2022-2023
1.1 Population (Census 2001/2011)	Persons	1752371	1752371
1.2 Decadal Growth Rate of the City	%	24.17	24.17
1.5 Number of Households (Present Year)	Number	610323	628100
1.6 Family Size (Census 2001/2011)	Persons	4.05	4.05
1.7 Family Size (Present Year)	Persons	4.19	4.19
1.8 Number of Slums (2001/2011)	Number	320	320
1.9 Number of Slums (Present Year)	Number	202	
1.10 Number of Slum Households (2001/2011)	Number	41238	41238
1.11 Number of Slum Households (Present Year)	Number	21880	
1.12 Number of Properties (2001/2011)	Number	530465	530465
1.13 Number of Properties excluding open plots (Present Year)	Number	614453	
1.14 Number of Election Wards (2001/2011)	Number	25	25
1.15 Number of Election Wards (Present Year)	Number	19	19
1.16 Town/City Area (Census 2001/2011)	Sq.km	159.31	159.31
1.17 Present Town/City Area	Sq.km	220.33	220.33
Built up area within Municipal Boundary	Sq.km	ND	ND
1.18 Population Density (Present Year)	Number	11619.0	11957
1.19 Number of Commercial and other establishments (offices, institutions, markets), Hotels and Restaurants (Year 2001/2011)	Number	78586	78586

STEP 7. Online module has inbuilt data validation rules to check entered data. An alert window opens to draw user's attention to recheck entered values or if entered values are unacceptable. ***It must be noted that if any unacceptable values have been entered then user can't submit data, user has to do corrections and need to fulfil all the mandatory validation conditions.***

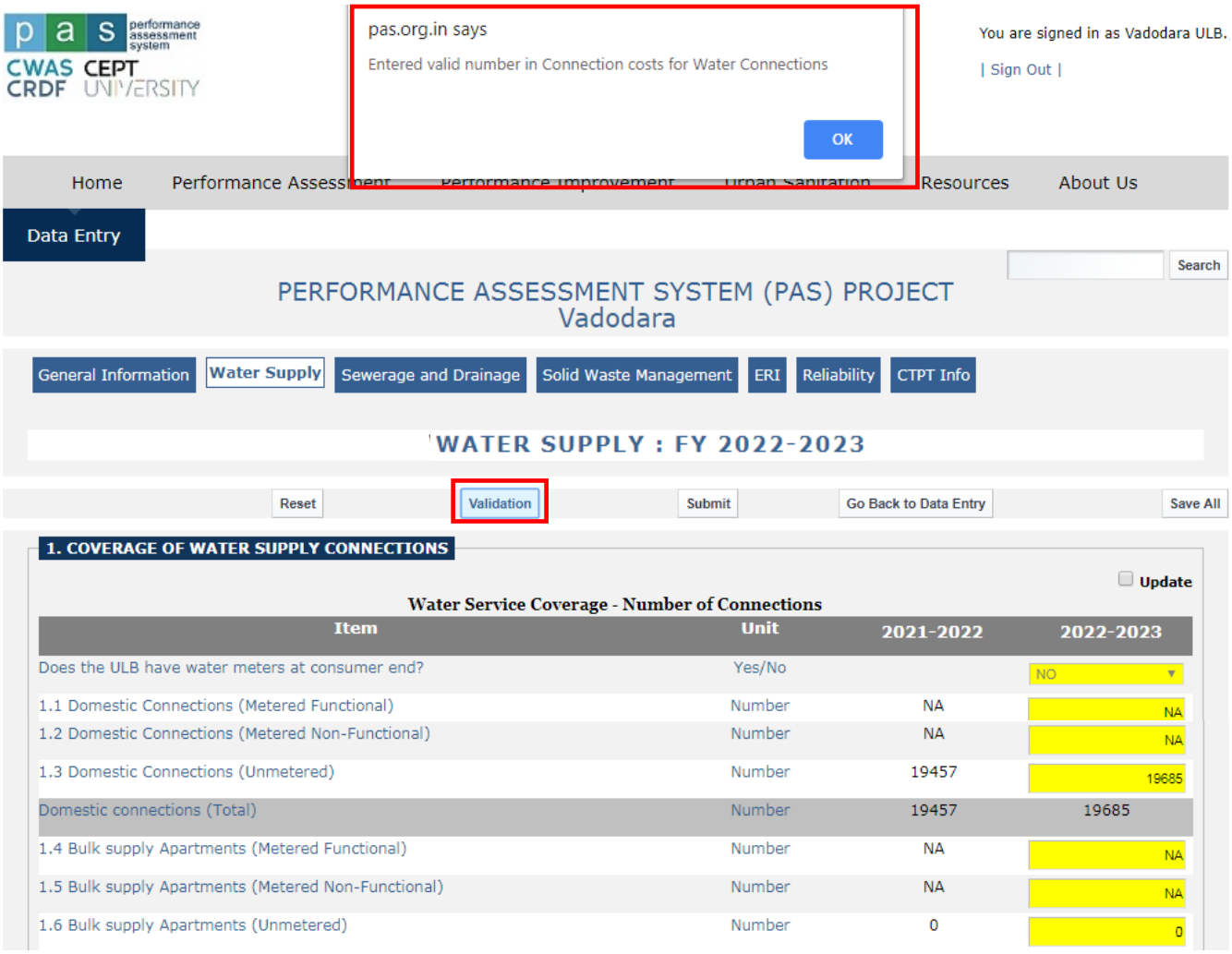
Online module has more than 200 built in data validation checks, mainly three types of inbuilt checks:

1. Pop up message to draw user's attention for rechecking entered value, for example if number of households served with water supply decreased as compared with previous year then pop up message will appear indicating "The Number of Households served with Water Supply is lower than previous year".

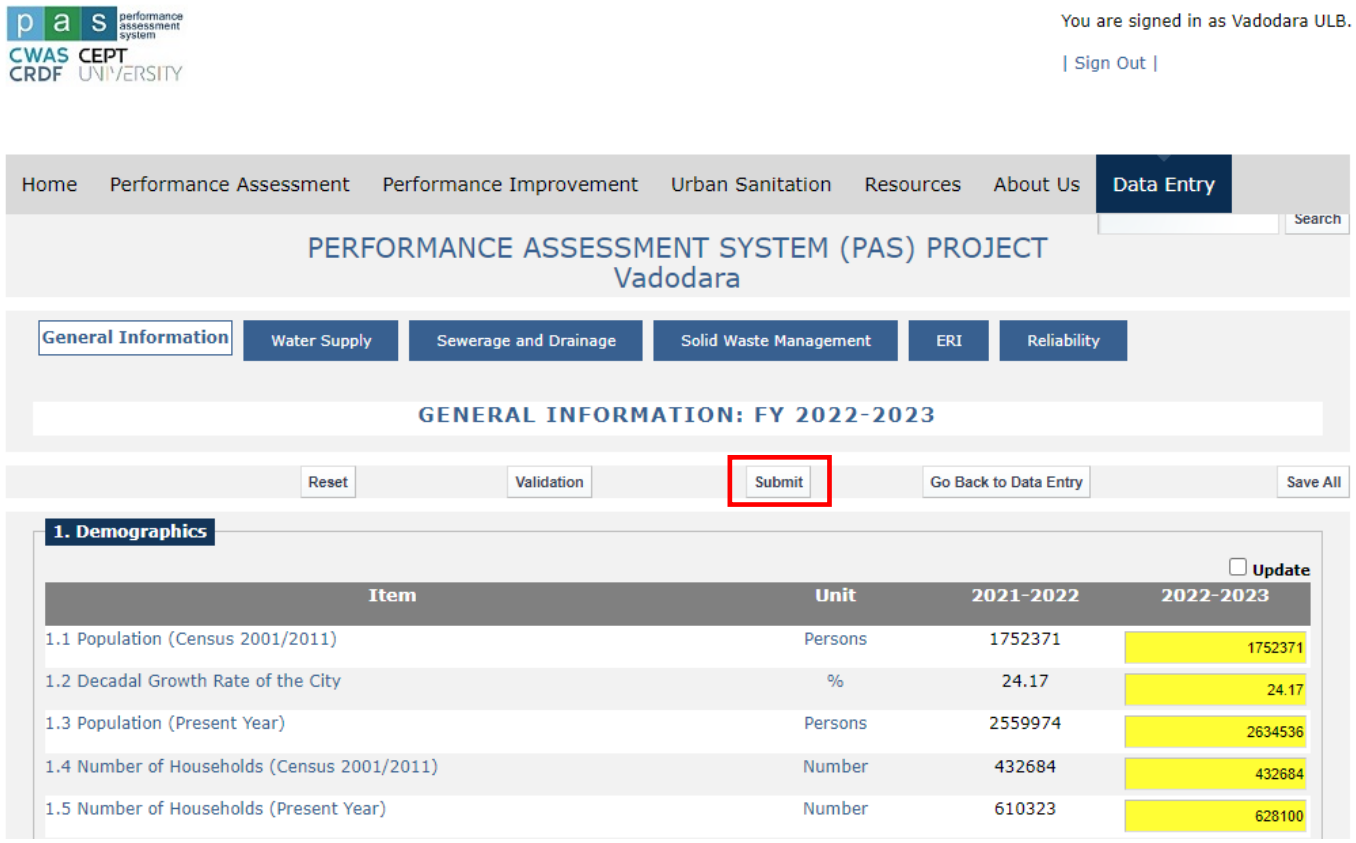
2. Pop up messages on entering unacceptable values, for example if entered values for complaints resolved are more than complaints received then popup message will appear "Complaints resolved cannot be more than Complaints received. Enter correct value" user cannot proceed further until these values have been corrected.

3. Before submitting data, user need to validate the entered value by clicking on "Validation" button for checking unacceptable values. If user has entered any unacceptable values, then pop up message will appear. For example, if summation of households with individual toilet and depend on community toilet is more than total households in city then user cannot submit data and pop up message will appear indicating "Sum of HHs with individual toilets and HHs depending on community toilets cannot be more than total HHs. Enter correct value".

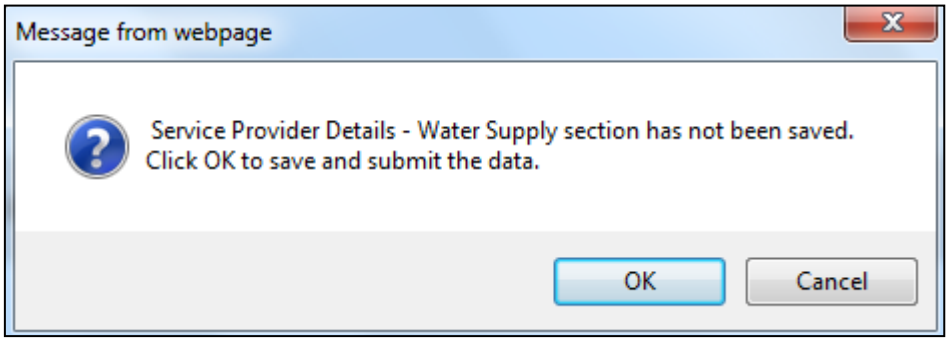
The annex 1 provides detailed guidance on inbuilt data validation rules.



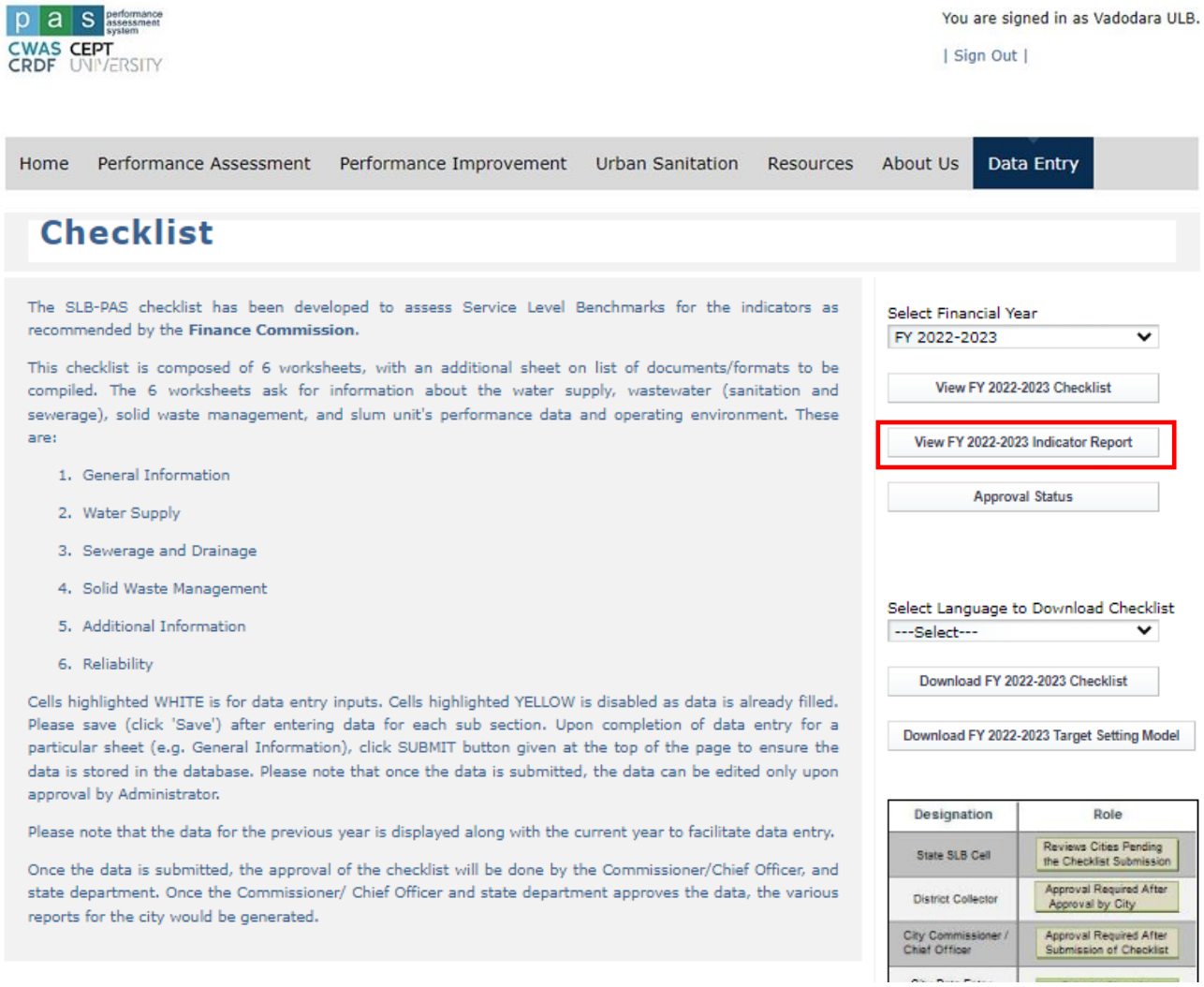
STEP 8. Click Submit once the user has saved and validated the data for each sub-section. Once the sheet is submitted, the data cannot be edited / updated without approval by the administrator. *Therefore, it is necessary to make sure the data is correct and verified to the extent possible before submitting the checklist.* Sheets should be submitted in a specific order starting from 'General information sheet' to 'Reliability sheet'.

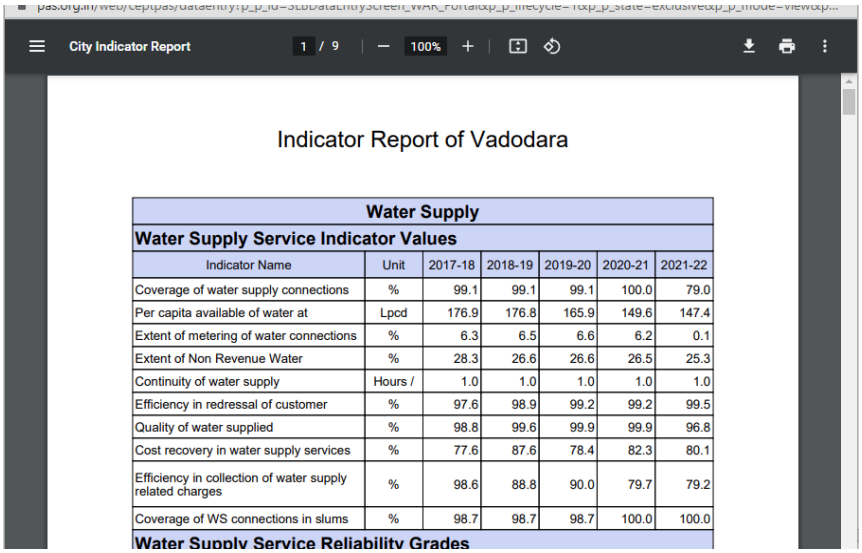


If the ULB overlooks entering data in any sub-section, then an alert appears upon submitting the checklist to enter data in all sections.

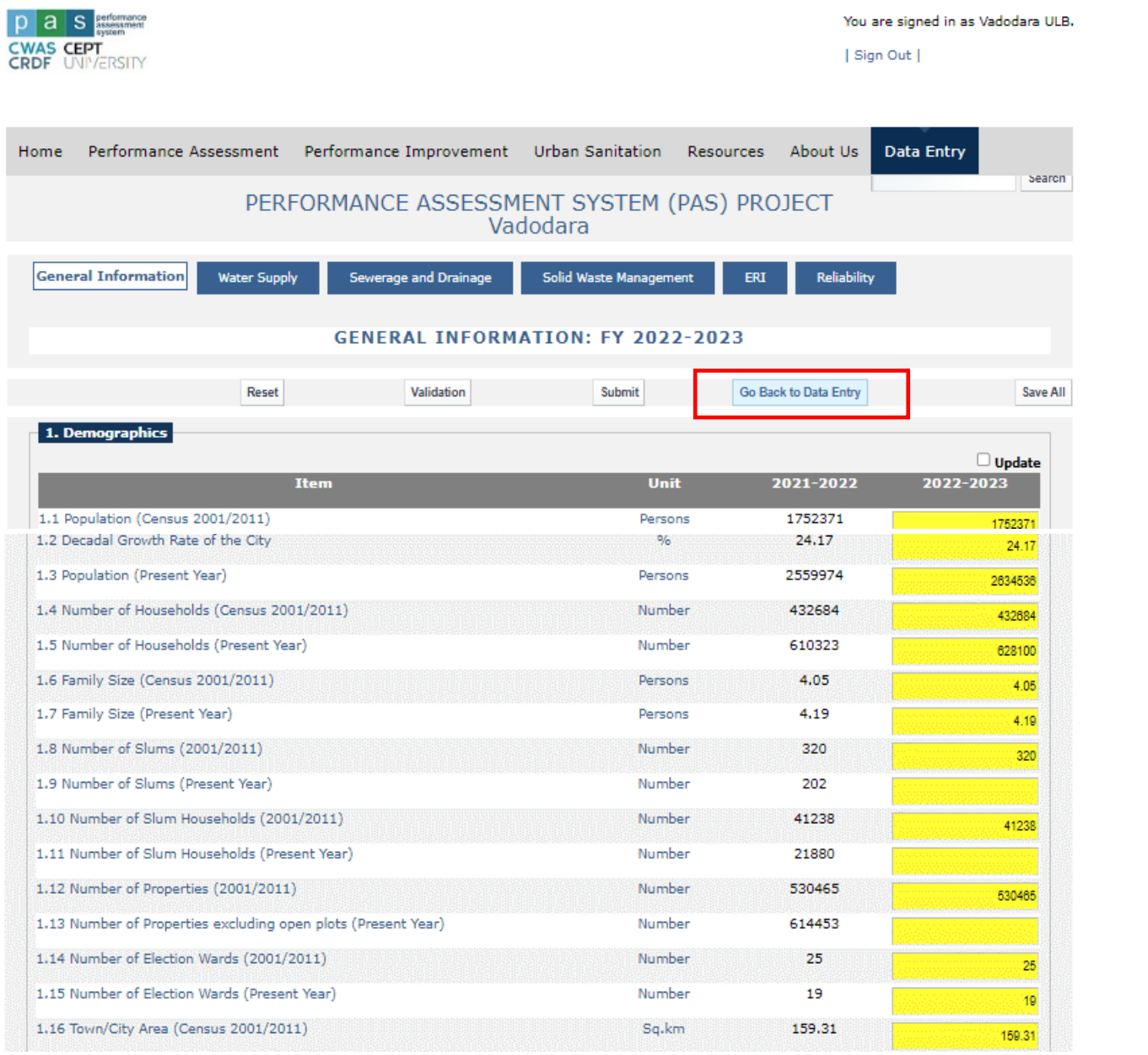


STEP 9. Once the sheet is submitted, the indicator report for that particular year can be viewed as shown below. An additional window displaying the indicator report will open as seen below.

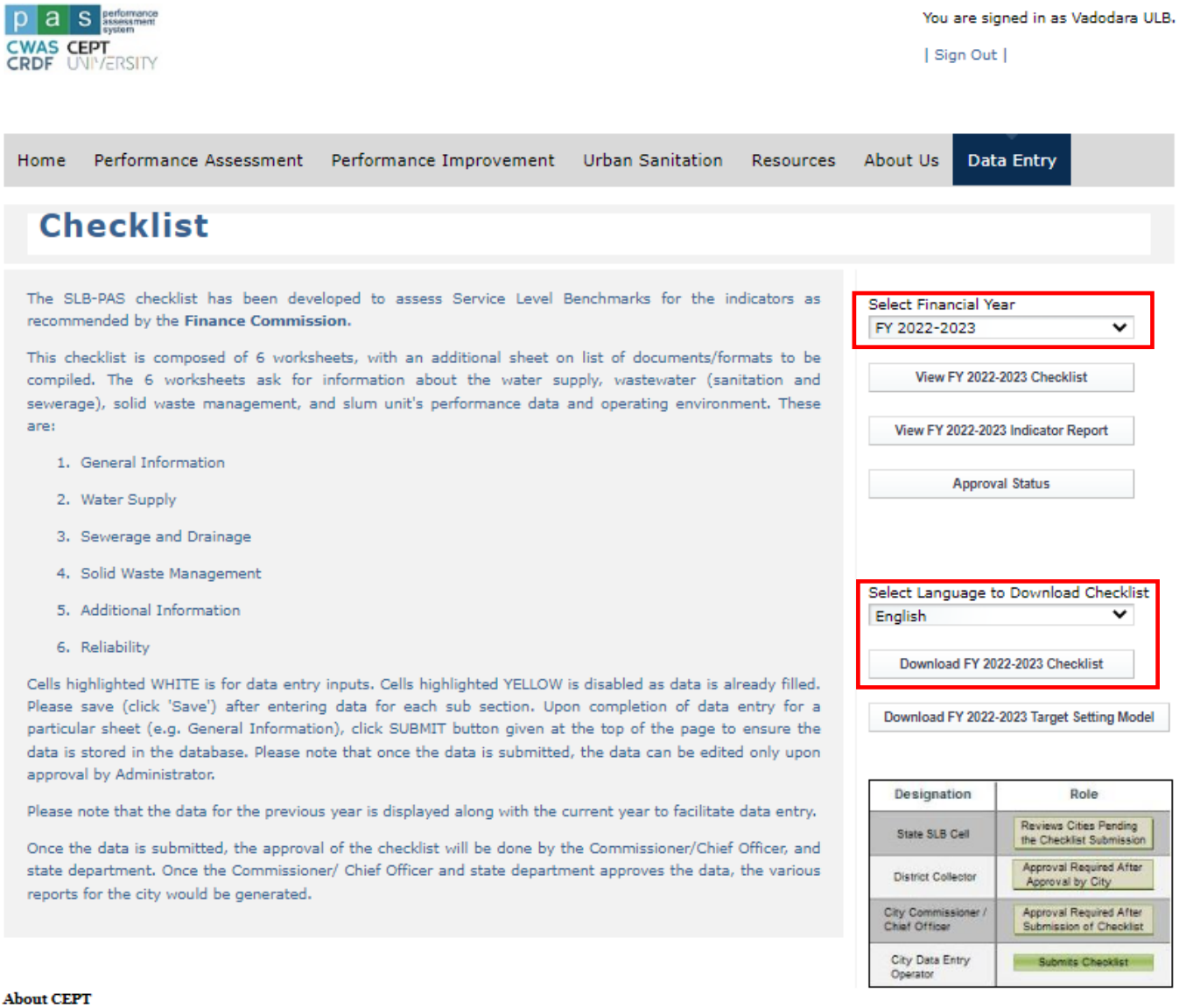




STEP 10. Click on 'Go Back to Data Entry' to return to the Data Entry page. Click on the Checklist.



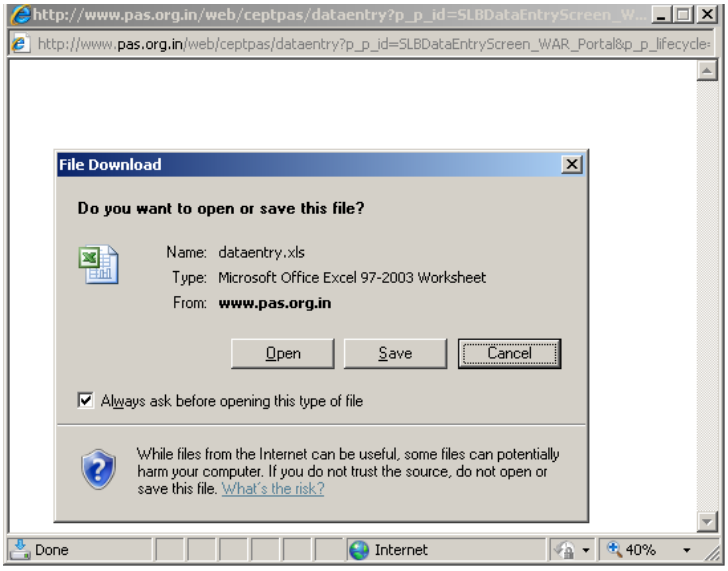
STEP 11. Select the Financial Year and Language for which the checklist must be downloaded.

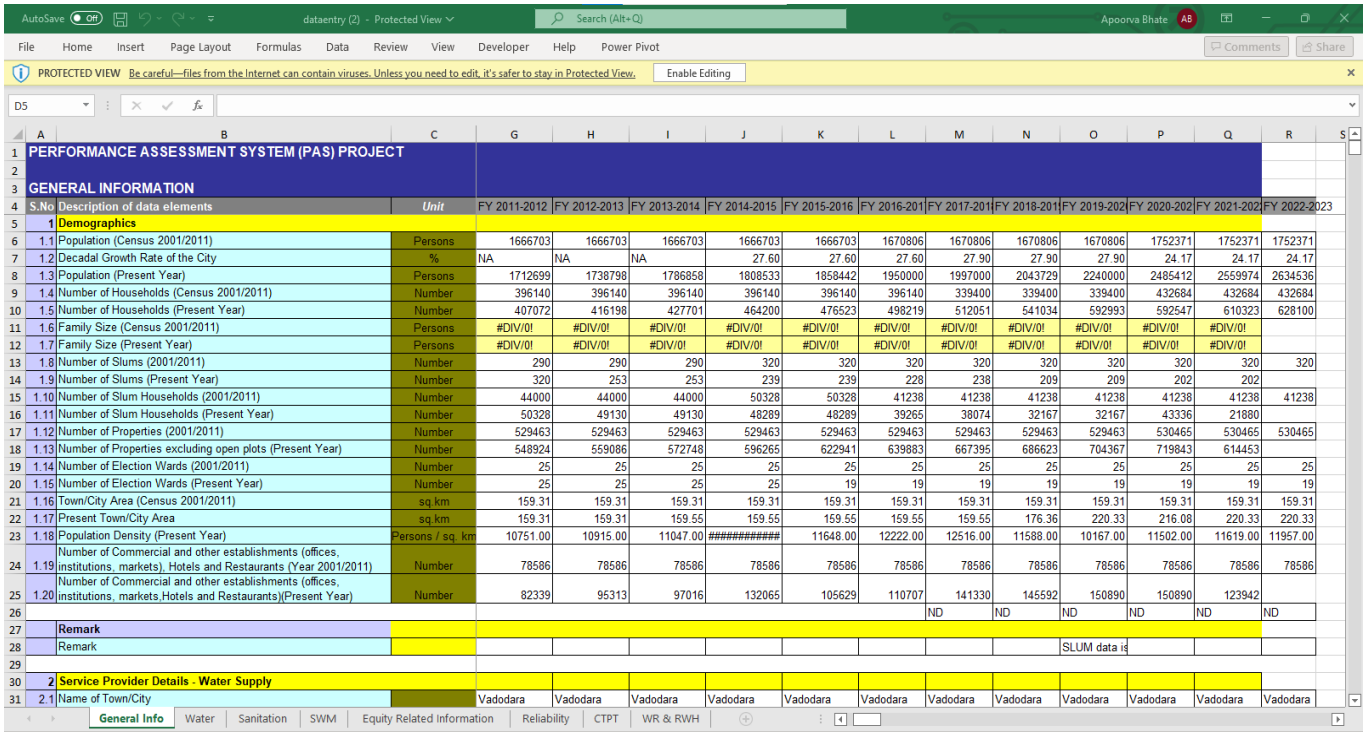


About CEPT

CEPT University located in Ahmedabad in India is a leading institution offering undergraduate and postgraduate programmes in Architecture, Planning, Building Construction, Interior Design, Technology Management and Arts through its various schools. Since its inception in 1962, CEPT's mission has been to contribute to development issues related to urban and rural settlements through its academic programmes as well as research and professional activities. In 2005, it was made into a State University by an Act of the State Legislative Assembly of Gujarat.

STEP 12. A new tab opens with a window asking whether to open or save the checklist. Choose the appropriate option to view the checklist as shown below.





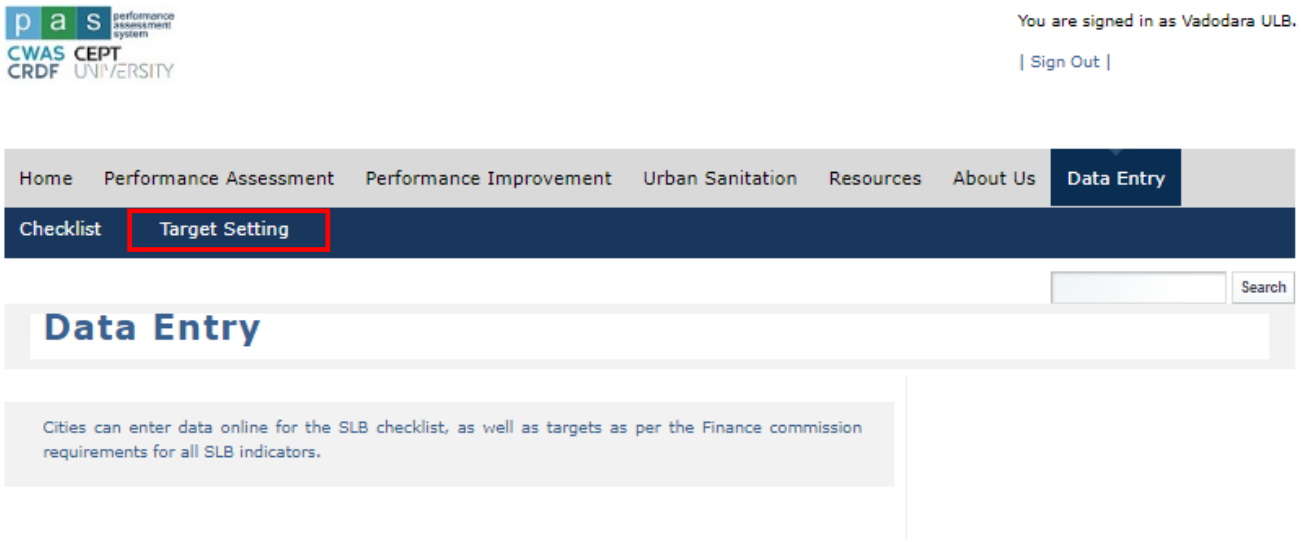
PERFORMANCE ASSESSMENT SYSTEM (PAS) PROJECT

GENERAL INFORMATION

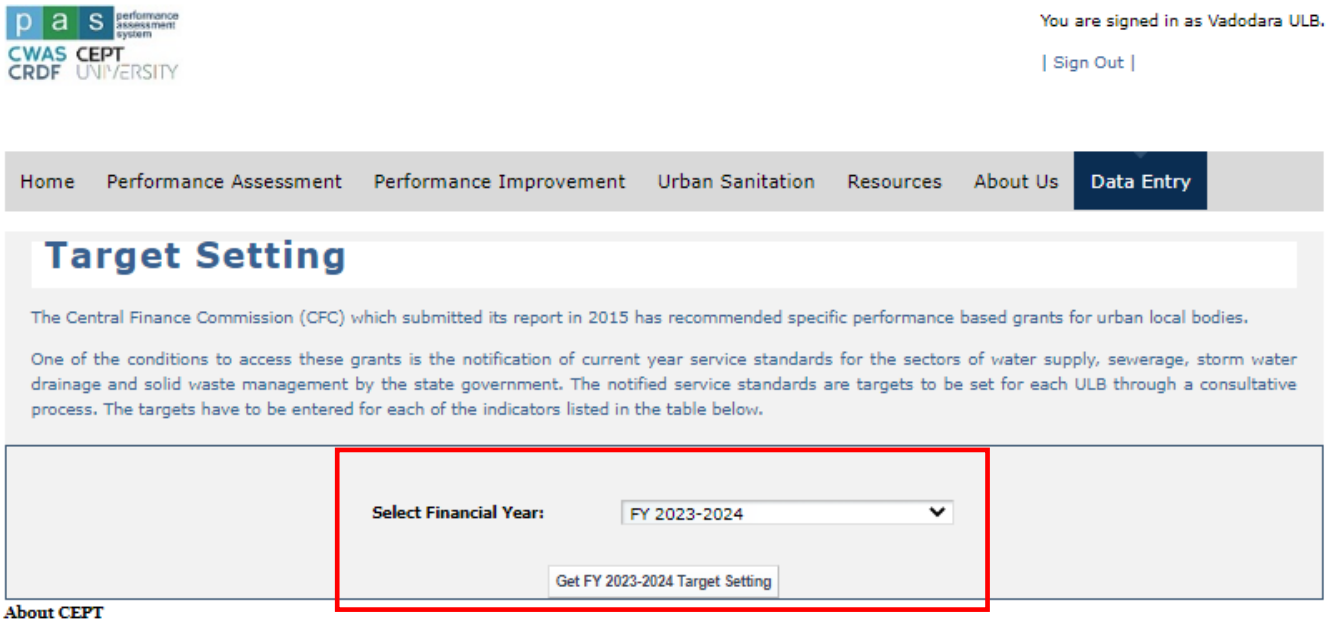
S.No	Description of data elements	Unit	FY 2011-2012	FY 2012-2013	FY 2013-2014	FY 2014-2015	FY 2015-2016	FY 2016-201	FY 2017-201	FY 2018-201	FY 2019-202	FY 2020-202	FY 2021-202	FY 2022-2023
1	**Demographics**													
1.1	Population (Census 2001/2011)	Persons	1666703	1666703	1666703	1666703	1666703	1670806	1670806	1670806	1670806	1752371	1752371	1752371
1.2	Decadal Growth Rate of the City	%	NA	NA	NA	27.60	27.60	27.60	27.90	27.90	27.90	24.17	24.17	24.17
1.3	Population (Present Year)	Persons	1712699	1738798	1786858	1808533	1858442	1950000	1997000	2043729	2240000	2485412	2559974	2634536
1.4	Number of Households (Census 2001/2011)	Number	396140	396140	396140	396140	396140	396140	339400	339400	339400	432684	432684	432684
1.5	Number of Households (Present Year)	Number	407072	416198	427701	464200	476523	498219	512051	541034	592993	592547	610323	628100
1.6	Family Size (Census 2001/2011)	Persons	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
1.7	Family Size (Present Year)	Persons	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
1.8	Number of Slums (2001/2011)	Number	290	290	290	320	320	320	320	320	320	320	320	320
1.9	Number of Slums (Present Year)	Number	320	253	253	239	239	228	238	209	209	202	202	
1.10	Number of Slum Households (2001/2011)	Number	44000	44000	44000	50328	50328	41238	41238	41238	41238	41238	41238	41238
1.11	Number of Slum Households (Present Year)	Number	50328	49130	49130	48289	48289	39265	38074	32167	32167	43336	21880	
1.12	Number of Properties (2001/2011)	Number	529463	529463	529463	529463	529463	529463	529463	529463	529463	530465	530465	530465
1.13	Number of Properties excluding open plots (Present Year)	Number	548924	559086	572748	596265	622941	639883	667395	686623	704367	719843	614453	
1.14	Number of Election Wards (2001/2011)	Number	25	25	25	25	25	25	25	25	25	25	25	25
1.15	Number of Election Wards (Present Year)	Number	25	25	25	25	19	19	19	19	19	19	19	19
1.16	Town/City Area (Census 2001/2011)	sq.km	159.31	159.31	159.31	159.31	159.31	159.31	159.31	159.31	159.31	159.31	159.31	159.31
1.17	Present Town/City Area	sq.km	159.31	159.31	159.55	159.55	159.55	159.55	159.55	176.36	220.33	216.08	220.33	220.33
1.18	Population Density (Present Year)	Persons / sq. km	10751.00	10915.00	11047.00	##########	11648.00	12222.00	12516.00	11588.00	10167.00	11502.00	11619.00	11957.00
1.19	Number of Commercial and other establishments (offices, institutions, markets), Hotels and Restaurants (Year 2001/2011)	Number	78586	78586	78586	78586	78586	78586	78586	78586	78586	78586	78586	78586
1.20	Number of Commercial and other establishments (offices, institutions, markets,Hotels and Restaurants)(Present Year)	Number	82339	95313	97016	132065	105629	110707	141330	145592	150890	150890	123942	
									ND	ND	ND	ND	ND	ND
	Remark													
	Remark										SLUM data is			
2	**Service Provider Details - Water Supply**													
2.1	Name of Town/City		Vadodara	Vadodara	Vadodara	Vadodara	Vadodara	Vadodara	Vadodara	Vadodara	Vadodara	Vadodara	Vadodara	Vadodara

3. How to enter targets online?

STEP 1. As mentioned in Chapter 2: step 1, login into the portal. Click the 'Target Setting' tab.



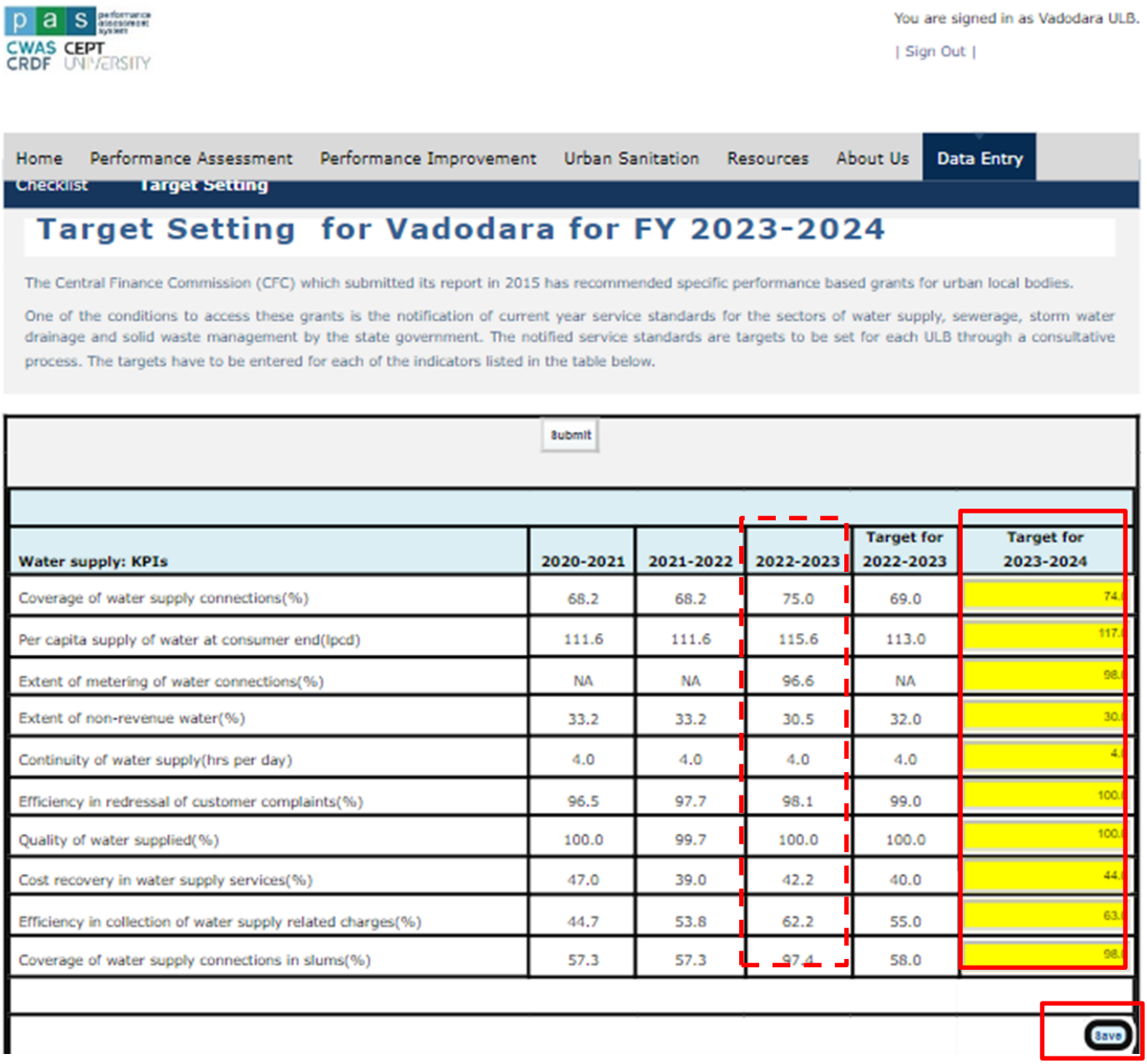
STEP 2. Select the Financial Year for which the targets need to be entered. For instance, click on 'Get FY 2023-2024 Target Setting' tab.



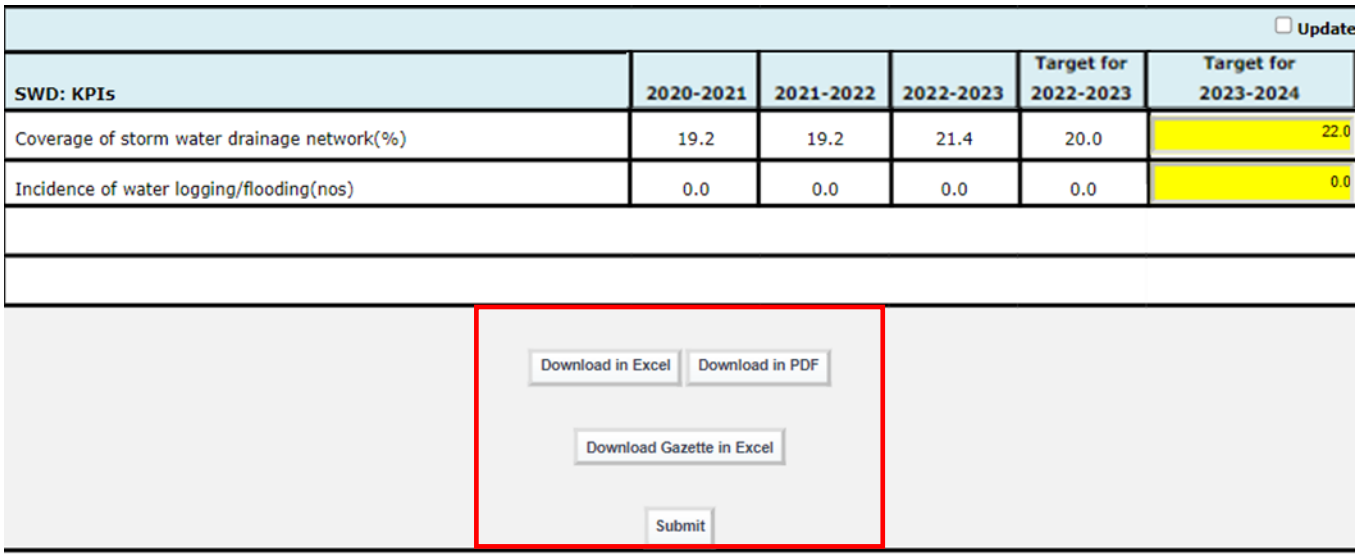
About CEPT

CEPT University located in Ahmedabad in India is a leading institution offering undergraduate and postgraduate programmes in Architecture, Planning, Building Construction, Interior Design, Technology Management and Arts through its various schools. Since its inception in 1962, CEPT's mission has been to contribute to development issues related to urban and rural settlements through its academic programmes as well as research and professional activities. In 2005, it was made into a State University by an Act of the State Legislative Assembly of Gujarat.

STEP 3. The ULB can now enter the targets for each indicator for all the sectors of Water Supply, Wastewater, SWM and SWD. The ULB can set the target for each indicator by considering the value of the respective indicator in the current year. Once the targets are entered for each sector, click 'Submit' to complete target entry. There are also options to download the target values in either excel or pdf format.



Water supply: KPIs	2020-2021	2021-2022	2022-2023	Target for 2022-2023	Target for 2023-2024
Coverage of water supply connections(%)	68.2	68.2	75.0	69.0	74.
Per capita supply of water at consumer end(lpcd)	111.6	111.6	115.6	113.0	117.
Extent of metering of water connections(%)	NA	NA	96.6	NA	98.
Extent of non-revenue water(%)	33.2	33.2	30.5	32.0	30.
Continuity of water supply(hrs per day)	4.0	4.0	4.0	4.0	4.
Efficiency in redressal of customer complaints(%)	96.5	97.7	98.1	99.0	100.
Quality of water supplied(%)	100.0	99.7	100.0	100.0	100.
Cost recovery in water supply services(%)	47.0	39.0	42.2	40.0	44.
Efficiency in collection of water supply related charges(%)	44.7	53.8	62.2	55.0	63.
Coverage of water supply connections in slums(%)	57.3	57.3	97.4	58.0	98.



Update

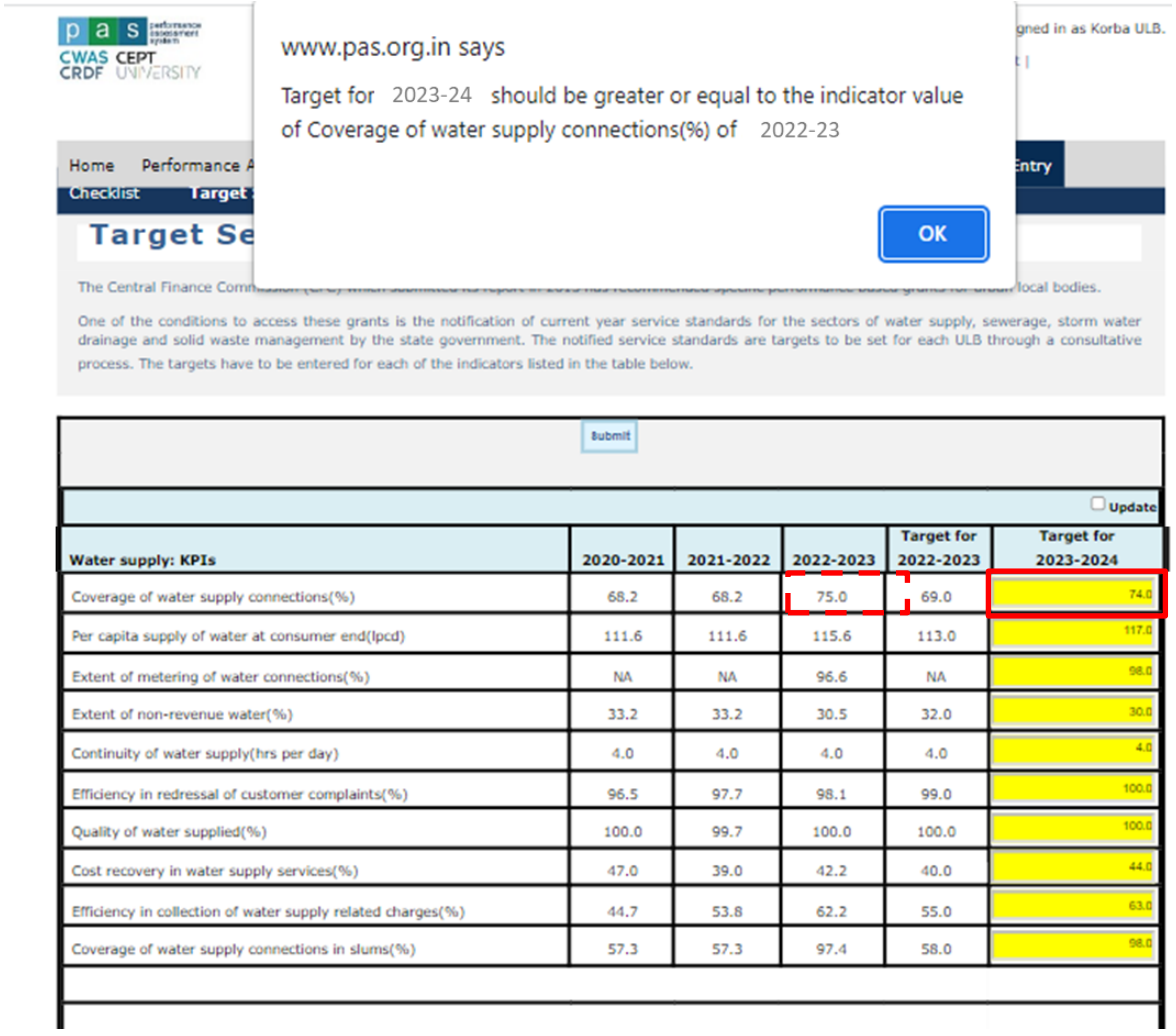
SWD: KPIs	2020-2021	2021-2022	2022-2023	Target for 2022-2023	Target for 2023-2024
Coverage of storm water drainage network(%)	19.2	19.2	21.4	20.0	22.0
Incidence of water logging/flooding(nos)	0.0	0.0	0.0	0.0	0.0

Download in Excel | Download in PDF

Download Gazette in Excel

Submit

Detailed guidance on setting targets based on current year indicator values is provided in Annex 2. When setting target values, cities should take into account the service delivery outcomes of ongoing capital works, their city plans and project budget allocations. If the city enters an incorrect target value, a pop-up message will appear on the screen to guide them, as shown below.



Water supply: KPIs	2020-2021	2021-2022	2022-2023	Target for 2022-2023	Target for 2023-2024
Coverage of water supply connections(%)	68.2	68.2	75.0	69.0	74.0
Per capita supply of water at consumer end(lpcd)	111.6	111.6	115.6	113.0	117.0
Extent of metering of water connections(%)	NA	NA	96.6	NA	98.0
Extent of non-revenue water(%)	33.2	33.2	30.5	32.0	30.0
Continuity of water supply(hrs per day)	4.0	4.0	4.0	4.0	4.0
Efficiency in redressal of customer complaints(%)	96.5	97.7	98.1	99.0	100.0
Quality of water supplied(%)	100.0	99.7	100.0	100.0	100.0
Cost recovery in water supply services(%)	47.0	39.0	42.2	40.0	44.0
Efficiency in collection of water supply related charges(%)	44.7	53.8	62.2	55.0	63.0
Coverage of water supply connections in slums(%)	57.3	57.3	97.4	58.0	98.0

Annex 1: Possible data sources for checklist and validation rules

1.1. General Information

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Demographics				
1.1.	**Population (Census 2011)**	**Persons**	**Auto filled based on latest census data.**		
1.2.	**Decadal Growth Rate of the City**	**Percentage (%)**	**Auto filled based on census data, formula for decadal growth rate = [(2011 population-2001 population) / 2001 population] *100**		
1.3.	Population (Present Year)	Persons	Population figures are updated by statistical projections between census/ survey years. Typically, the annual growth rate for the period 1991-2001 may be used to arrive at population estimates for the current year	Population and housing (households, properties) information are normally obtained from census and surveys; or Town Planning Department	Check filled data with information from recent survey or calculate based on census population using growth rate method; Current year population = [(2011 population *annual growth rate / 100) * number of years] + 2011 population. Annual growth rate = Decadal growth rate/ 10 and Number of years = current year – 2011. If current year population is decreasing from previous year, then enter reason in remark and accordingly check number of households also.
1.4.	**Number of Households (Census 2011)**	**Number**	**Auto filled based on latest census data.**		
1.5.	Number of Households (Present Year)	Number	This is derived from population figures given for the present year	Population and housing (households, properties) information are normally obtained from census and surveys; or Town Planning Department	Check data with recent survey or calculate based on projected population and 2011 census family size (cell 1.6). Formula= current year population / 2011 family size. If value is lower than previous year or higher than 5% of previous year, then pop up message to draw user's attention: "Number of households is lower than previous year. OR Number of households is more than 5% of the previous year".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					This should not be equal to Number of properties (cell 1.13), validation message: "Current year households and properties cannot be the same".
1.6.	**Family Size (Census 2011)**	**Persons**	**This is automatically generated based on population and number of households for 2001/2011.**		
1.7.	**Family Size (Present Year)**	**Persons**	**This is automatically generated based on population and number of households for the present year. Value should not be lower than 3 and higher than 7, validation message: "Family size is lower than average 3 persons per family OR higher than average 7 persons per family".**		
1.8.	**Number of Slums (2011)**	**Number**	**Auto filled based on latest census data.**		
1.9.	Number of Slums (Present Year)	Number	Number of slum settlements and households are obtained from the city's Urban Community Department (UCD) in most cases	UCD, Surveys for BPL families which covers slum settlements as well	If city is slum-free then enter zero. This cannot be NA, pop up message: "Enter valid number in Number of slums (present year)"
1.10.	**Number of Slum Households (2011)**	**Number**	**Auto filled based on latest census data.**		
1.11.	Number of Slum Households (Present Year)	Number	Number of slum settlements and households are obtained from the city's UCD in most cases. It is also likely that surveys for Below Poverty Line (BPL) have been conducted from which number of slum households can be obtained	UCD, Surveys for BPL families which covers slum settlements as well.	If data is available in previous year then this should not be zero, validation message: "Slum data should not be zero or "NA" if value in previous year". If there are no slums this year, then enter zero and put remark. This cannot be NA, pop up message "Enter valid number in Number of Slum Households (Present Year)"
1.12.	**Number of Properties (2011)**	**Number**	**Auto filled based on number of properties entered on census year.**		
1.13.	Number of Properties excluding open plots (Present Year)	Number	Number of properties in the city in the current year	Property tax records	Exclude open plots and abandoned properties (to which city has not provided any services and levy any tax) from total properties. If value is lower than previous year or higher than 10% of previous year, then pop up message to draw user's attention: "The Number of Properties is lower than previous year. OR The Number of

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					Properties is more than 10% of the previous year".
1.14.	**Number of Election Wards (2011)**	**Number**	**Auto filled based on number of election wards in the city as per census year.**		
1.15.	Number of Election Wards (Present Year)	Number	Number of election wards in the current year	Town Planning Department	If current year election wards are decreasing from previous year, then enter reason in remark
1.16.	**Town/City Area (Census 2011)**	**Square kil ometre (Sq. km)**	**Auto filled based on latest census data.**		
1.17.	Present Town/City Area	Sq. km	Area of the city in the present year	Town Planning Department	This cannot be zero or NA, validation message: "City area cannot be zero or "NA". If value is lower than previous year, then pop up message to draw user's attention: "City area is lower than previous year".
	Built up area within Municipal Boundary	Sq. km	Built up / habitat area of the city excluding agriculture or open land where there is no service provided by city	Town Planning Department	User cannot enter value more than present town/city area (cell 1.17) or zero or NA
1.18.	**Population Density (Present Year)**	**Number**	**This is obtained by dividing population for the present year by area of the city.**		
1.19.	**Number of Commercial and other Establishments (Offices, Institutions, Markets), Hotels and Restaurants (Year 2011)**	**Number**	**Auto filled based on number of commercial and other establishments entered on census year.**		
1.20.	Number of Commercial and other Establishments (Offices, Institutions, Markets, Hotels and Restaurants) (Present Year)	Number	Number of commercial and other properties in the city in the current year	Property tax records	If current year data is decreasing from previous year, then enter reason in remark

1.2.Water supply

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Water Service Coverage - Number of Connections (only Residential connections are to be entered in this section)				
	Does the city have water meters at consumer end?	Y/N			Enter Yes or No. If entered "No" then all questions related to metered connections will be auto filled as "NA".
1.1.	Domestic Connections (Metered Functional)	Number	Number of domestic metered connections that are functional	Property Tax Software or Water Connection Register	If water meters are not installed at consumer connections in the city, this will be auto filled as "NA". If values lower than previous year, then pop up message to draw user's attention: "Total number of functional metered connections is lower than previous year".
1.2.	Domestic Connections (Metered Non-Functional)	Number	Number of domestic metered connections that are non-functional.		If water meters are not installed at consumer connections in the city, this will be auto filled as "NA".
1.3.	Domestic Connections (Unmetered)	Number	Number of domestic connections that are not metered.		If all the connections are metered or city / state agency does not provide water service then this should be zero, do not enter "NA".
	Domestic Connections (Total)	**Number**	**This is automatically generated based on the total number of domestic connections.**		
1.4.	Bulk Supply Apartments (Metered Functional)	Number	Bulk supply connections include apartments, condominiums with single bulk connection serving several residential units (households). Number of metered connections that are functional.	Property Tax Software or Water Connection Register	If water meters are not installed at consumer connections in the city, this will be auto filled as "NA". If value is lower than previous year, then pop up message to draw user's attention: "Total number of functional metered connections is lower than previous year".
1.5.	Bulk Supply Apartments (Metered Non-Functional)	Number	Bulk supply connections include apartments, condominiums with single bulk connection serving several residential units (households). Number of metered connections that are non-functional.		If water meters are not installed at consumer connections in the city, this will be auto filled as "NA".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
1.6.	Bulk supply Apartments (Unmetered)	Number	Bulk supply connections include apartments, condominiums with single bulk connection serving several residential units (households). Number of non-metered connections.		If all the connections are metered or no water supply coverage in the city then this should be zero, do not enter "NA".
	Bulk Supply Apartments (Total)	**Number**	**This is automatically generated based on the total number of bulk supply connections.**		
1.7.	Bulk Supply Layouts/Societies (Metered Functional)	Number	Bulk supply connections to apartment complexes or societies. Number of such metered connections that are functional.	Property Tax Software or Water Connection Register	If water meters are not installed at consumer connections in the city, this will be auto filled as "NA". If value is lower than previous year, then pop up message to draw user's attention: "Total number of functional metered connections is lower than previous year".
1.8.	Bulk Supply Layouts/Societies (Metered Non-Functional)	Number	Bulk supply connections to apartment complexes or societies. Number of such metered connections that are non-functional.		If water meters are not installed at consumer connections in the city, this will be auto filled as "NA".
1.9.	Bulk Supply Layouts/societies (Unmetered)	Number	Bulk supply connections to apartment complexes or societies. Number of such connections that are not metered.		If all the connections are metered or no water supply coverage in the city than this should be zero, do not enter "NA".
	Bulk Supply Layouts/Societies (Total)	**Number**	**This is automatically generated based on total number of bulk supply connections in layouts/societies.**		
1.10.	Others - Specify (Metered Functional)	Number	Any other metered and functional residential connections, which cannot be included in the above nomenclature.	Property Tax Software or Water Connection Register	If water meters are not installed at consumer connections in the city, this will be auto filled as "NA". If value is lower than previous year, then pop up message to draw user's attention: "Total number of functional metered connections is lower than previous year".
1.11.	Others - Specify (Metered Non-Functional)	Number	Any other metered and non-functional residential connections, which cannot be included in the above nomenclature.		If water meters are not installed at consumer connections in the city, this will be auto filled as "NA".
1.12.	Others - Specify (Unmetered)	Number	Any other unmetered residential connections, which cannot be included in the above nomenclature.		If all the connections are metered or no water supply coverage in the city then this should be zero, do not enter "NA".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Others - Specify (Total)	**Number**	**This is automatically generated based on total number of other connections.**		
	Total Number of Water Supply Connections - Residential	**Number**	**This is automatically generated based on total number connections.**		
	*Water Service Coverage - Households Served**				
1.13.	Households Served by Domestic Connections	Number	Preferably, households served should come directly from connection register. In its absence, multiply the number of each type (ferrule size) of domestic connection by the average number of households served by each type of connection. This figure should not include households served by own sources, such as wells, hand pumps, etc.	Property Tax Software or Water Connection Register	If ULB or state agency does not provide water supply service, then enter zero. This field should not be NA. If individual domestic connections are there, then this should not be "NA" or zero. If value is lower than previous year, then pop up message to draw user's attention: "The Number of Households served with Water Supply is lower than previous year". User cannot enter value more than General Information sheet (cell 1.5 Number of Households) and validation message will appear "'Households served by domestic connections' cannot be more than the 'Number of households (Present Year)' in the city. Enter correct values".
1.14.	Households Served by Bulk Supply - Apartments	Number			If value is present in bulk supply apartment connections than this should not be zero or "NA". This value should be more than total number of bulk apartment connections. Validation error: "The number of Households served by bulk supply - Apartment should be more than the number of bulk apartment connections".
1.15.	Households Served by Bulk Supply - Layouts/Societies	Number			If value is present in bulk supply society connections than this should not be zero or "NA". This value should be more than number of bulk layouts/societies connections.

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					Validation message: "The number of Households served by bulk supply - layouts/societies should be more than the number of bulk layouts/societies connections".
	Total Households Served with Water Supply	**Number**	**This is automatically generated based on total number of households served with water supply (sum of cells 1.13 to 1.15). This should not be more than total current year households in the city (General information sheet, cell no 1.5). Validation message: "Total households served" cannot be more than the "Number of households (Present Year)" in the city. Enter correct values in the "Households served" section. If value is lower than previous year or higher than 20% of previous year, then pop up message to draw user's attention: "The Number of Households served with Water Supply is lower than previous year. OR The Number of Households served with Water Supply is more than 20% of the previous year. Are you sure?"**		
	**Households served by own sources such as own wells, hand pumps, public taps shall not be included*				
	Water Production Capacity				***Value cannot be more than 350 lpcd and a validation message will appear "Per capita supply of water is more than 350 lpcd, recheck the value"***
2.1.	Installed Capacity of Treatment Plants for Surface Water Sources	Million litres per day (MLD)	Indicate the total water treatment capacity for surface water sources daily.	Computerised/manual logbooks of flow meters/ based on pumping hours and discharge capacity of pumps at the treatment plant	If there is not treatment plant than enter zero. If ULB or state agency does not provide water supply service, then enter "NA" in cells 2.1 to 2.13
2.2.	Volume of Water Produced through Surface Water Sources (Dam / river/ lake / canal / bulk raw water purchase / bulk treated water purchase	MLD	Enter volume of water treated at treatment plant including volume of bulk purchase. Ideally, the records are maintained on daily basis in the stations log-sheet and reported on monthly basis. From monthly records, estimation of the water quantity of daily average is to be noted here.		
2.3.	Installed Capacity of Treatment Plants for Ground Water Sources	MLD	Indicate the total water treatment capacity for ground water sources daily.	If treatment plant is installed to treat ground water, then enter capacity of treatment plant based on computerised/ manual logbooks of flow meters/ based on pumping hours and discharge capacity of pumps at the treatment plant	
2.4.	Volume of Water Produced through	MLD	Ideally, the records are maintained on daily basis in the pumping stations' log-	Computerised/Manual logbooks of flow meters/ based on Pumping hours	

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Ground Water (Power Pumps+ hand pumps + wells)		sheet and reported on monthly basis. From monthly records, estimation of the water quantity of daily average is to be noted here.	and discharge capacity of pumps installed to extract ground water (include ground water quantity used by hand pump also)	
2.5.	Volume of Water Produced through any Other Sources (desalination, rainwater harvesting, etc.)	MLD	Ideally, the records are maintained on daily basis in the pumping stations' log-sheet and reported on monthly basis. From monthly records, estimation of the water quantity daily, from any other sources is to be noted here.	Computerised/Manual logbooks of flow meters/Pumping hours of the desalination plant or through rainwater harvesting.	
	Total Installed Capacity	**MLD**	**This is automatically generated based on total installed capacity of the treatment plants. If value is lower than previous year, then pop up message to draw user's attention: "Total installed capacity of treatment plants is lower than previous year".**		
	Total Volume of Water Produced	**MLD**	**This is automatically generated based on total installed capacity of the treatment plants. If value is lower than previous year, then pop up message to draw user's attention: "The Total Volume of water produced is lower than previous year".**		
	Water Consumption				
2.6.	Volume of Water Billed from Domestic Connections	MLD	Volume of water consumed from piped supplies to billed domestic connections.	Ideally, volume is to be noted through consumer water meters. In case of non-working /unmetered water supply connections in city, need to calculate based on sample survey using bucket and stopwatch method or estimate based on ferrule size and estimated water discharge during supply hours in a day.	
2.7.	Volume of Water Billed from Bulk supply Apartments	MLD	Volume of water consumed from piped supplies to apartments with billed bulk supply connections.		
2.8.	Volume of Water Billed from Bulk supply Layouts/Societies	MLD	Volume of water consumed from piped supplies to layouts/societies with billed bulk supply connections.		
2.9.	Volume of Water Billed from Non-domestic Connections	MLD	Volume of water consumed from piped supplies to billed Non-domestic connections.	Ideally, volume is to be noted through consumer water meters. In case of non-working /unmetered connections, need to calculate based on sample survey using bucket and stopwatch method or estimate based on ferrule size and estimated water discharge during supply hours in a day.	If cities have entered value in non-domestic connections (cells 4.1 to 4.3) than this cell should not be zero or "NA" or if this is zero or "NA" than sum of cells 4.1 to 4.3 should be zero. Validation message: "Kindly check Volume of water billed from Nondomestic Connections and Nondomestic connections incl. commercial/Indus/Instl"

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
2.10.	Volume of Water Billed from Public Taps	MLD	Volume of water consumed from piped supplies to billed public taps.	Ideally, volume is to be noted through consumer water meters. In case of non-working /unmetered connections, estimation based on consumer end surveys of public taps' consumption.	
2.11.	Volume of Water Billed from any Other Sources	MLD	Volume of water consumed from piped supplies to any other billed sources like tanker supply	Ideally, volume is to be noted through consumer water meters. In case of non-working /unmetered connections, calculate based on capacity of tanker and trips in a day.	
	Total Volume of Water Billed	**MLD**	**This is automatically generated based on total volume of water consumed from billed connections. Total of billed and unbilled quantity cannot be more than total production. If value is lower than previous year, then pop up message to draw user's attention: "Total volume of water billed is lower than previous year".**		
2.12.	Total Volume of Water Unbilled (Free Supplies to Public Taps)	MLD	Volume of water consumed from free supplies to public taps and hand-pumps.	Based on number of public taps and hand-pumps and the average quantum of supply.	
2.13.	Total Volume of Water Unbilled (Free Connections e.g. Religious Institutions etc.)	MLD	Volume of water consumed from free supplies to religious institutions etc.	Based on number of free connections and the average quantum of supply.	If value is lower than previous year, then pop up message to draw user's attention: "The Total Volume of water unbilled is lower than previous year. " Sum of cells 2.6 to 2.13 should not be more than sum of cells 2.4, 2.5 and 2.6. Validation message: "Total volume of water billed and unbilled cannot be more than total production"
3.1.	Total Volume of Water Produced	MLD	**This is automatically generated based on the total water produced.**		
3.2.	Total Volume of Water Billed	MLD	**This is automatically generated based on total water billed.**		
4.1.	Non-domestic including Commercial/Industrial/Institutional (Metered Functional)	Number	Provide the number of non-domestic connections which are metered and functional.	Property Tax Software, Water Connection Register,	If water meters are not installed at consumer connections in the city, this will be auto filled as "NA".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
4.2.	Non-domestic including Commercial/Industrial/Institutional (Metered Non-Functional)	Number	Provide the number of non-domestic connections which are metered and non-functional.		
4.3.	Nondomestic including Commercial/Industrial/Institutional (Unmetered)	Number	Provide the number of non-domestic connections which are not metered.		If value is entered in any cell from 4.1 to 4.3, then cell 2.12 should not be zero or "NA" or if cell 2.12 is zero or "NA" then sum of cells 4.1 to 4.3 should be zero. Validation message: "Kindly check Volume of water billed from Nondomestic Connections and Nondomestic connections incl. commercial/Indus/Instl" Need to verify value lower than previous year
	Non-domestic including Commercial/Industrial/Institutional (Total)	**Number**	**This is automatically generated based on total non-domestic connections. Verify value lower than previous year.**		
4.4.	Public Taps (Metered Functional)	Number	Provide the number of public taps which are metered and functional	Municipal Records	If water meters are not installed at consumer connections in the city, this will be auto filled as "NA".
4.5.	Public Taps (Metered Non-functional)	Number	Provide the number of public taps which are metered and non-functional	Municipal Records	
4.6.	Public Taps (Unmetered)	Number	Provide the number of public taps which are not metered	Municipal Records	Value cannot be zero if value is entered in Total volume of water unbilled (cell 2.11) or vis-e-versa, validation message: "Kindly check total volume of water unbilled (free supplies to Public taps) and Total public taps"
	Public Taps (Total)	**Number**	**This is automatically generated based on total number of public taps.**		
	Total Number of Metered and Functional Connections (Domestic, Bulk Supply, Others)	**Number**	**This is automatically generated based on total metered and functional connection. If value is lower than previous year, then pop up message to draw user's attention: "Total number of functional metered connections is lower than previous year ".**		
	Total Number of Water Supply Connections	**Number**	**This is automatically generated based on total water supply connections.**		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Water Supply Frequency				
5.1.	Days of Supply per Month	Number	Average days of water supply per month based on pump operators' records.	This can be provided based on records maintained by pump operators at each valve operating point.	If ULB or state agency does not provide water supply service, then enter zero. If value is lower than previous year, then pop up message to draw user's attention: "Total Days of water supply per month is lower than previous year ". User cannot enter value more than 30 days and validation message will appear: "Total days of water supply per month cannot be more than 30. Enter correct value for days of supply per month". User cannot enter NA and validation message will appear: "Enter valid number in Days of supply per month"
5.2.	Hours of Supply per Day to Consumer	Hours	Average duration of supply (hours/day).	This can be obtained from each ward or distribution zone and averaged out based on the population covered for the entire network.	If ULB or state agency does not provide water supply service, then enter zero. If value is lower than previous year, then pop up message to draw user's attention: "Average duration of water supply is lower than previous year ". User cannot enter value more than 24 hours and validation message will appear: "Average duration of water supply per day cannot be more than 24 hrs. Enter correct value for average duration of each supply". User cannot enter NA, and validation message will appear: "Enter valid number in Average duration of each supply"
	Consumer Services				
6.1.	Complaints Received During the Year	Number	Total number of complaints received in a year.	Computerised/Manual consumer grievance redressal records	User cannot enter NA and validation message will appear "Enter valid number in Complaints received during the year"
6.2.	Complaints Resolved within 24 Hours during the Year	Number	Total number of complaints redressed within 24 hours of registering.	Computerised/Manual consumer grievance redressal records	If ULB or state agency does not provide water supply service, then enter "NA".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					User cannot enter value more than cell 6.1 and validation message will appear "Complaints resolved cannot be more than Complaints received. Enter correct value". User cannot enter "NA" and validation message will appear: "Enter valid number in Complaints resolved within 24 hours during the year"
	Treated Water Quality Surveillance				
7.1.	**Residual Chlorine** (RC) - Number of Samples Taken at the Source/ Outlet of Water Treatment Plant (in a year)	Number	Enter number of samples taken at the source or outlet of water treatment plant for RC test annually.	RC test reports for internal audits and for those conducted by external quality checking agencies. Records on number of samples taken at various levels like treatment plants, service reservoir, distribution networks or consumer end are ideally available on a daily/monthly basis, which must be summation for a yearly value.	If ULB does not take any sample for quality check then enter "ND". If ULB or state agency does not provide water supply service, then enter "NA" in cells 7.1 to 7.15
7.2.	**RC** - Number of Samples taken at Intermediate Points (in a Year)	Number	Enter number of samples taken at the service reservoir or from distribution network for RC test annually.		
7.3.	**RC** - Number of Samples taken at Consumer End (in a year)	Number	Enter number of samples taken at the consumer end for RC test annually.		
7.4.	Total Samples Taken for RC Tests (if location-wise samples are not available)	Number	If location wise samples data (cells 7.1 to 7.3) is not available, then only enter data in this cell (otherwise enter zero value).		
	Total Samples taken for RC Tests	**Number**	**This is automatically generated based on total number of RC samples**		
7.5.	Number of Samples Passed	Number	Enter number of samples pass for RC tests at various levels like treatment plants, service reservoir, distribution networks or consumer end	RC test reports for internal audits and for those conducted by external quality checking agencies. Records on number of samples pass at various levels are ideally available on a daily/monthly basis, which must be summation for a yearly value.	User cannot enter value more than either sum of 7.1 to 7.3 or cell 7.4 and validation message will appear: "The value for Number of Samples that Passed chlorine tests is more than the number of samples tested. Enter correct values".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
7.6.	**Physical/Chemical** - Number of Samples taken at the Source/Outlet of Water Treatment Plant (in a year)	Number	Enter number of samples taken at the source or outlet of water treatment plant for physical / chemical tests (e.g. pH, colour, turbidity, TDS, hardness, chloride, fluoride, etc.) annually.	Physical/Chemical test reports for internal audits and for those conducted by external quality checking agencies. Records on number of samples taken at various levels like treatment plants, service reservoir, distribution networks or consumer end are ideally available on a daily/monthly basis, which must be averaged out on a yearly basis.	
7.7.	**Physical/Chemical** - Number of Samples taken at Intermediate Points (in a year)	Number	Enter number of samples taken at the service reservoir or from distribution network for physical / chemical tests annually.		
7.8.	**Physical/Chemical** - Number of Samples taken at Consumer End (in a year)	Number	Enter number of samples taken at the consumer end for physical / chemical tests annually.		
7.9.	Total Samples taken for Physical/Chemical Tests (if location-wise samples are not available)	Number	If location wise samples data (cells 7.6 to 7.8) is not available, then only enter data in this cell (otherwise enter zero value).		
	Total Samples taken for Physical and Chemical tests	**Number**	**This is automatically generated based on total number of physical and chemical samples. If no water supply system, then this should be NA**		
7.10.	Number of Samples Passed	Number	Enter number of samples pass for physical/chemical tests at various levels like treatment plants, service reservoir, distribution networks or consumer end	Physical/chemical test reports for internal audits and for those conducted by external quality checking agencies.	User cannot enter value more than either sum of 7.6 to 7.8 or cell 7.9 and validation message will appear: "The value for Number of Samples that Passed Physical and Chemical tests is more than the number of samples tested. Enter correct values".
7.11.	**Bacteriological** - Number of Samples taken at the Source/Outlet of Water Treatment Plant (in a year)	Number	Enter number of samples taken at the source or outlet of water treatment plant for bacteriological tests (e.g. presence /absence of test for E-Coli, MPN index / 100 ml, etc.) annually.	Bacteriological test reports for internal audits and for those conducted by external quality checking agencies. Records on number of samples taken at various levels like treatment plants, service reservoir, distribution networks or consumer end are ideally available on a daily/monthly basis,	
7.12.	**Bacteriological** - Number of Samples	Number	Enter number of samples taken at the service reservoir or from distribution		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	taken at Intermediate Points (in a year)		network for bacteriological tests annually.	which has to be averaged out on a yearly basis.	
7.13.	**Bacteriological** - Number of Samples taken at Consumer End (in a year)	Number	Enter number of samples taken at the consumer end for bacteriological tests annually.		
7.14.	Total Samples taken for Bacteriological Tests (if location-wise samples are not available)	Number	If location wise samples data (cells 7.11 to 7.13) is not available, then only enter data in this cell (otherwise enter zero value).		
	Total Samples taken for Bacteriological Tests	**Number**	**This is automatically generated based on total number of biological samples. If no water supply system, then this should be NA**		
7.15.	Number of Samples Passed	Number	Enter number of samples pass for bacteriological tests at various levels like treatment plants, service reservoir, distribution networks or consumer end	Bacteriological test reports for internal audits and for those conducted by external quality checking agencies.	User cannot enter value more than either sum of 7.11 to 7.13 or cell 7.14 and validation message will appear: "The value for Number of Samples that Passed Bacteriological tests is more than the number of samples tested. Enter correct values".
	Total Number of Samples Taken for All Types of Tests	**Number**	**This is automatically generated based on total number of samples of all types of tests.**		
	Total Tests Passed	**Number**	**This is automatically generated based on total number of tests passed**		
	Financial Information - Operating Expenses				
8.1.	Regular Staff and Administration	Rs. in Lakhs	Payments in lieu of staff and administrative expenditure.	Records on Double entry accounting (Tally), Budget document	If water supply service is provided by ULB or state agency, then this cell should not be zero or "NA". If ULB or state agency does not provide water supply service, then enter "NA" in cells 8.1 to 8.7
8.2.	Outsourced/Contract Staff Costs	Rs. in Lakhs	Payments in lieu of salaries to outsourced or contracted staff		
8.3.	Electricity Charges/Fuel Costs	Rs. in Lakhs	Payments in lieu of Electricity Charges/Fuel Costs. If bills are not paid but raised by electricity service provider		Cannot be zero if water supply connections are provided by ULB or state agency.

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
			then enter amount of annual electricity bills for water supply service		Validation message: "Electricity Charges/Fuel Costs cannot be Zero as Total number of water supply connections is available".
8.4.	Chemical Costs	Rs. in Lakhs	Payments in lieu of Chemical Costs		
8.5.	Repairs/Maintenance Costs	Rs. in Lakhs	Expenditure incurred in lieu of repairs or maintenance of the Water supply system		
8.6.	Bulk (Raw/Treated) Water Charges	Rs. in Lakhs	Expenditure incurred in lieu of bulk water purchase. If bills are not paid but raised by agency, then enter amount of annual bulk water purchase bills		If ULB purchased bulk / treated water (ERI sheet cells 2.10 and 2.11) then this value cannot be zero. Error message: "The city is purchasing raw/treated water from Bulk sources. Enter correct value for water charges".
8.7.	Other Costs	Rs. in Lakhs	Expenditure incurred in lieu of other costs		
	Total Operating Expenditure	**Rs. in Lakhs**	**This is automatically generated based on total Operating Expenditure. Water supply expenditure (sum or cells 8.1 to 8.7) cannot be zero if water supply services are provided (value entered for water supply connections). Error message: "Total Operating Expenditure should not be 0 or NA as Total number of water supply connections is available".**		
	Financial Information - Operating Revenues				
8.8.	Arrears at the Beginning of the Year	Rs. in Lakhs	Outstanding revenues in lieu of arrears in the beginning of the financial year.	Demand and collection statement of water tax / charges, records on double entry accounting (Tally), budget document	If city / agency does not levy water user charge/tax, then enter "NA" in cells 8.8 to 8.10.
8.9.	Revenue Demand from User Charges	Rs. in Lakhs	Revenue demand from user charges (from customers with metered water connections based on user charges).		If no metering in the city, this will be auto filled as NA.
8.10.	Revenue Demand from Tax/Cess - Water Service Only	Rs. in Lakhs	Revenue demand from tax/cess from water service only.		If increase in number of WS connections, then this should not lower than previous year.
8.11.	Revenue Demand from Other Revenues (e.g. Connection Costs/Donations etc.)	Rs. in Lakhs	Revenue demand from other revenues (e.g. connection costs/donations etc.).	Records on double entry accounting (Tally), budget document	If increase in number of WS connections, then this should not be zero.
	Total Revenue Demand for current Year	**Rs. in Lakhs**	**This is automatically generated based on total Revenue Demand for previous year. Value cannot be zero if value is entered (summation of values in cells 8.8 to 8.11) in previous year. Error message: "Total Revenue Demand is non-zero in the last year. Hence zero is not a valid entry for the present year".**		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
9.1.	**Total Revenue Demand (From User Charges, Taxes etc.)**	**Rs. in Lakhs**	**This is automatically generated based on total Revenue Demand for current year**		
9.2.	Collection Against Arrears	Rs. in Lakhs	Total collections in the financial year against arrears.	Demand and collection statement of water tax / charges, Records on Double entry accounting (Tally)	If city / agency does not levy water user charge/tax, then enter "NA" in cells 9.2 and 9.3 Value cannot be greater than demand of arrears, cell 8.8 Error message: "Collection against arrears cannot be more than Arrears at the beginning of previous year". If value is entered in Arrears at the Beginning of the Year (cell 8.8) then user cannot enter NA and validation message will appear: "Enter valid number in collection against arrears". If value in Arrears at the Beginning of the Year (cell 8.8) is zero or "NA" then this will be auto filled as "NA"
9.3.	Collection Against the Current Demand of the Year	Rs. in Lakhs	Total collections in the financial year against the current demand.		If city / agency does not levy water user charge/tax, then enter "NA" in cells 9.2 and 9.3. Value cannot be greater than current year demand, cell 9.1 Error message: "Collection against current demand cannot be more than Total revenue demand" If value is entered in Revenue Demand from User Charges or Tax/Cess - Water Service Only (cells 8.9 or 8.10) then user cannot enter NA and validation message will appear "Enter valid number in collection against current demand"
	Additional Information (Optional)				
	Staff Information				
10.1.	Senior Management (Sanctioned)	Number	Number of sanctioned staff in senior managerial posts.	Sanctioned staff record and other	If water supply services are provided by ULB or state agency then summation of

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
10.2.	Senior Management (Working)	Number	Number of staff working in senior managerial posts.	municipal records at establishment department	cells 10.1, 10.3, 10.5, 10.7, 10.8, 10.9, 10.11 and 10.13 should not be zero. Error message: "Sanctioned staff should not be zero if ULB has provided water supply connections". If water supply services are provided by ULB or state agency then summation of cells 10.2, 10.4, 10.6, 10.8, 10.10, 10.12 and 10.14 should not be zero. Error message: "Working staff should not be zero if ULB has provided water supply connections".
10.3.	Engineers (Sanctioned)	Number	Number of posts sanctioned for engineers.		
10.4.	Engineers (Working)	Number	Number of engineers working currently		
10.5.	Clerks/Accountants (Sanctioned)	Number	Number of posts sanctioned for clerks/accountants.		
10.6.	Clerks/Accountants (Working)	Number	Number of clerks/accountants working currently.		
10.7.	Work Inspectors/Meter Readers (Sanctioned)	Number	Number of posts sanctioned for work inspectors/meter readers.		
10.8.	Work Inspectors/Meter Readers (Working)	Number	Number of work inspectors/meter readers working currently.		
10.9.	Electricians/Fitters (Sanctioned)	Number	Number of posts sanctioned for electricians/fitters.		
10.10.	Electricians/Fitters (Working)	Number	Number of electricians/fitters working currently.		
10.11.	Lines Men/Plumbers (Sanctioned)	Number	Number of posts sanctioned for Lines men/plumbers.		
10.12.	Lines Men/Plumbers (Working)	Number	Number of lines men/plumbers working currently.		
10.13.	Labourers (Sanctioned)	Number	Number of posts sanctioned for labourers.		
10.14.	Labourers (Working)	Number	Number of labourers working currently.		
	Total (Sanctioned)	**Number**	**This is automatically generated based on total number of sanctioned staff.**		
	Total (Working)	**Number**	**This is automatically generated based on total number of staff working.**		
	Connection Costs for Water Connections				
10.15.	Residential - General	Rs	Connection costs for residential connections.	Water tariff register	If value is lower than previous year, then pop up message to draw user's attention: "Connection costs for residential water connection is lower than previous year". If value is entered in collection against current year demand (cell 9.3) then value in this cell cannot be zero or "NA"

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					Validation error: "Entered valid number in Connection costs for Water Connections"
10.16.	Residential - Urban Poor	Rs	Connection costs for residential connections in slums.		If there is no slum, value in General info cell no 1.9 is zero or "NA" then this cell is auto-filled as "NA"
10.17.	Institutional	Rs	Connection costs for institutional connections.		
10.18.	Commercial	Rs	Connection costs for commercial connections.		
10.19.	Industrial	Rs	Connection costs for industrial connections.		
	Water Tariff Structure - Flat Rate Tariff				
10.20.	Residential - General	Rs. / Month	Tariff for residential connections.	Water tariff register	If value is lower than previous year, then pop up message to draw user's attention: "Flat rate water tariff for residential water connection is lower than previous year". If value is entered in collection against current year demand (cell 9.3) then value in this cell cannot be zero or "NA" Validation error: "Entered valid number in Water Tariff Structure"
10.21.	Residential - Urban Poor	Rs. / Month	Tariff for residential connections in slums.		
10.22.	Institutional	Rs. / Month	Tariff for institutional connections.		
10.23.	Commercial	Rs. / Month	Tariff for commercial connections.		
10.24.	Industrial	Rs. / Month	Tariff for industrial connections.		
	Water Tariff Structure - Volumetric Tariff				
10.25.	Residential - General	Rs. /Kilolitre (KL)	Unit rate for residential connections in non-slum areas based.	Water tariff register	If there is no metering at consumer end, then cells 10.25 to 10.29 will be auto-filled as "NA". If value is lower than previous year, then pop up message to draw user's attention:

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					"Volumetric water tariff for residential water connection is lower than previous year".
10.26.	Residential - Urban Poor	Rs. /KL	Unit rate for residential connections in slum areas.		
10.27.	Institutional	Rs. /KL	Unit rate for institutional connections.		
10.28.	Commercial	Rs. /KL	Unit rate for commercial connections.		
10.29.	Industrial	Rs. /KL	Unit rate for industrial connections.		

1.3.Sewerage and Drainage

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Sanitation Coverage				
1.1.	**Total Number of Properties in the City**	**Number**	**This is automatically generated based on number of properties entered in the demographics section of general information sheet.**		
1.2.	Properties with Toilets	Number	This is the total number of properties, both residential and non-residential, having access to individual or community toilets.	Sanitary Inspector, Sanitation Department, property tax software	If value is lower than previous year, then pop up message to draw user's attention: "The Number of Properties with access to toilets is lower than previous year".
1.3.	Households Dependent on Functional Community Toilets	Number	Number of households (mostly in slum settlements) having access to community toilets that are functional.	Sanitary Inspector, Sanitation Department / UCD	If no community toilet available, then this should be zero. Sum of households with individual toilets (ERI sheet cell 3.12) and households depend on community toilets (cell 3.17) cannot be more than total households in the city (General info sheet cell 1.5) Validation message: "Sum of HHs with individual toilets and HHs depending on community toilets cannot be more than total HHs. Enter correct value".
1.4.	**Total Number of Properties with Access to Toilets**	**Number**	**This is automatically generated based on the properties with toilets and household's dependent on functional community toilets. Should not be more than total properties in the city (General info cell 1.13). Validation message: "The Number of Properties with access to toilets is more the Number of Properties. Enter correct value". If value is lower than previous year and higher than 20% of previous year then verify, enter reason in remark. Most of the cities are declared as Open defecation free (ODF), that means all properties have access to individual or community toilets. If value is not equal to 'Number of Properties excluding open plots (Present Year)' (General information sheet cell 1.13) then pop up message to draw user's attention: "In case of ODF city, the Number of Properties with access to toilets should be equal to Number of Properties"**		
2.1.	**Total Number of Properties in the City**	**Number**	**This is automatically generated based on number of properties entered in the demographics section of general information sheet.**		
2.2.	Properties with Sewer Connections.	Number	Number of properties, residential and non-residential, connected to sewerage network.	Property Tax Software/ Sanitation Department	If no sewerage system in city this should be zero. Value should not be more than properties with toilets (cell 1.2).

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					Validation message: "Properties with sewer connections cannot be more than total number of properties with access to toilets. Enter correct value". User cannot enter NA and validation message will appear: "Enter valid number in Properties with sewer connections"
2.3.	Properties with Onsite Sanitary Disposal.	Number	Number of properties, residential and non-residential, connected to on-site sanitation systems like septic tanks.	Property Tax Software/ Sanitation Department	Auto filled, number of properties with individual toilets that are not connected to sewerage system.
	Wastewater Production - Volume of Water Consumed and Wastewater Generated				
3.1.	**Volume of Water Consumed and Billed from Domestic Connections**	**MLD**	**This is automatically generated based on value entered in water supply sheet cell no C 2.6.**		
3.2.	**Volume of Water Consumed and Billed from Bulk Supply - Apartments**	**MLD**	**This is automatically generated based on value entered in water supply sheet cell no 2.7.**		
3.3.	**Volume of Water Consumed and Billed from Bulk Supply - Layouts/Societies**	**MLD**	**This is automatically generated based on value entered in water supply sheet cell no 2.8.**		
3.4.	**Volume of Water Consumed and Billed from Non-domestic Connections**	**MLD**	**This is automatically generated based on value entered in water supply sheet cell no 2.9.**		
3.5.	**Volume of Water Consumed (both Billed and Unbilled) from Public Taps**	**MLD**	**This is automatically generated based on value entered in water supply sheet cell no 2.10.**		
3.6.	**Volume of Water from Free Supplies (other connections)**	**MLD**	**This is automatically generated based on value entered in water supply sheet cell no 2.13**		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
3.7.	**Volume of Water Consumed and Billed from any other ULB Sources**	**MLD**	**This is automatically generated based on value entered in water supply sheet volume of water billed.**		
3.8.	Volume of Water Consumed from any Non-ULB Water Sources	MLD	Volume of water consumed from non-municipal sources like private supply, etc.	Water Supply Department	
3.9.	**Total Water Consumption (Billed and Unbilled) from ULB and Non-ULB sources)**	**MLD**	**This is automatically generated from water supply sheet.**		
3.10.	**Volume of Wastewater Generated from Domestic Water Consumption**	**MLD**	**This is automatically generated based on 80% of Question Number 3.1.**		
3.11.	**Volume of Wastewater Generated from Bulk Supply - Apartments**	**MLD**	**This is automatically generated based on 80% of Question Number 3.2.**		
3.12.	**Volume of Wastewater Generated from Bulk Supply - Layouts/Societies**	**MLD**	**This is automatically generated based on 80% of Question Number 3.3.**		
3.13.	**Volume of Wastewater Generated from Non-domestic Water Consumption**	**MLD**	**This is automatically generated based on 80% of Question Number 3.4.**		
3.14.	**Volume of Wastewater Generated from Public Tap Water Consumption**	**MLD**	**This is automatically generated based on 80% of Question Number 3.5.**		
3.15.	**Volume of Wastewater Generated from Free Supplies (Other Connections)**	**MLD**	**This is automatically generated based on 80% of Question Number 3.6.**		
3.16.	**Volume of Wastewater Generated from Other**	**MLD**	**This is automatically generated based on 80% of Question Number 3.7.**		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	ULB Source Water Consumption				
3.17.	**Volume of Wastewater Generated from Non-ULB Source Water Consumption**	**MLD**	**This is automatically generated based on 80% of Question Number 3.8.**		
	Total Wastewater Generated	**MLD**	**This is automatically generated based on total of Question Number 3.10 – 3.17.**		
	Wastewater Collection and Treatment				
3.18.	Volume of Sewage Actually Treated at the Primary Treatment Plant	MLD	Quantity of wastewater received at the inlet of the sewage treatment plant (STP) having only primary treatment capacity.	Log records at STP, Sewerage/Sanitation Department	If value of sewerage connections (cell 2.2) is zero, then cells 3.18 to 6.2 will be auto filled as NA. Value cannot be more than total wastewater generated. Validation message: "Volume of sewage actually treated at the Primary Treatment Plant cannot be more than Total wastewater generated. Enter correct value". If value is entered in Properties with Sewer Connections (cell 2.2) then user cannot enter NA and validation message will appear: "Enter valid number in Volume of sewage actually treated at the Primary Treatment Plant"
3.19.	Volume of Sewage Actually Treated at Secondary Treatment Plant	MLD	Quantity of wastewater received at the inlet of the STP having secondary treatment capacity.	Log records at STP, Sewerage/Sanitation Department	If city has only primary treatment facility like oxidation pond, then this should be zero. Value cannot be more than volume of sewage treated at the primary treatment plant (cell 3.18) Validation message: "Volume of sewage actually treated at Secondary Treatment Plant cannot be more than Volume of sewage actually treated at the Primary Treatment Plant. Enter correct value".
3.20.	**Total Volume of Wastewater Collected**	**MLD**	**This is automatically generated based on total of Question Number 3.18-3.19.**		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	and Treated at Sewage Treatment Plants				
4.1.	Installed Capacity of Primary Treatment Plant	MLD	Total installed capacity of STP having only primary treatment.	Log records at STP, Sewerage/Sanitation Department	If value is lower than previous year, then pop up message to draw user's attention: "Installed Capacity of Primary Treatment Plant is lower than previous year". If value is entered in Volume of Sewage Actually Treated at the Primary Treatment Plant (cell 3.18) then user cannot enter "NA" or zero and validation message will appear: "Enter valid number in Installed Capacity of Primary Treatment Plant"
4.2.	Installed Capacity of Secondary Treatment Plant	MLD	Total installed capacity of STP having secondary treatment.		If value is lower than previous year, then pop up message to draw user's attention: "Installed Capacity of Secondary Treatment Plant is lower than previous year". If value is entered in Volume of Sewage Actually Treated at Secondary Treatment Plant (cell 3.19) then user cannot enter "NA" or zero and validation message will appear: "Enter valid number in Installed Capacity of Secondary Treatment Plant"
4.3.	**Total Installed Capacity (Primary + Secondary Treatment)**	**MLD**	**This is automatically generated based on Question Number 4.1-4.2.**		
4.4.	**Total Wastewater Generated**	**MLD**	**This is automatically generated.**		
5.1.	**Volume of Sewage Actually Treated at Secondary Treatment Plant**	**MLD**	**This is automatically generated based on Question Number 3.19.**		
5.2.	Volume of treated Wastewater Reused after Secondary Treatment	MLD	Quantity of wastewater that is reused for purposed like irrigation, agriculture, etc. after secondary treatment.	Log records at STP, Sewerage/Sanitation Department	Value should not be more than volume of sewage actually treated at Secondary Treatment Plant (cell 3.19)

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					Validation message: "Volume of treated wastewater reused after Secondary Treatment cannot be more than Volume of sewage actually treated at secondary treatment plant. Enter correct value".
	Discharge Compliance after Secondary Treatment of Sewage				
6.1.	Number of Treated Effluent Samples Tested (in a year)	Number	Records on number of effluent samples taken at sewage outfalls on a daily/monthly basis, which has to be averaged out on a yearly basis.	Test reports maintained at ULB labs/ sent to regional labs.	
6.2.	Number of Treated Effluent Samples Passed (in a year)	Number	Records on number of effluent samples that have passed tests conducted at sewage outfalls on a daily/monthly basis, which has to be averaged out on a yearly basis.		User cannot enter value more than number of treated effluent samples tested in a year (cell 6.1) and validation message will appear: "The Number of Treated Effluent Samples Passed in a year is more than the Number of samples tested. Enter correct values".
	Consumer Services				
7.1.	Sewage Related Complaints Received during the Year	Number	Total number complaints received in a year.	Computerised/Manual Consumer Grievance Redressal Records	This field should not be zero or "NA". If city does not have sewerage network then complaints related to cleaning of open drain, community toilets, septic tanks / pits cleaning, etc. should be entered. User cannot enter "NA" and validation message will appear "Enter valid number in Sewage related Complaints received during the year".
7.2.	Sewage Related Complaints Resolved within 24 hours during the Year	Number	Total number of complaints redressed within 24 hours of registering.		User cannot enter value more than sewage related complaints received during the year (cell 7.1) and validation message will appear: "Complaints resolved cannot be more than Complaints received. Enter correct value". User cannot enter "NA" and validation, message will appear "Enter valid number in Sewage related Complaints resolved within 24 hours during the year".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Financial Information - Annual Operating Expenses				
8.1.	Regular Staff and Administration	Rs. in Lakhs	Payments in lieu of staff and administrative expenditure.	Records on Double entry accounting (Tally), Budget document	This field should not be zero or "NA". If sewerage is not present then enter staff cost related to cleaning of open drain, community toilets, septic tanks, etc.
8.2.	Outsourced/Contract Staff Costs	Rs. in Lakhs	Payments in lieu of salaries to outsourced or contracted staff.		
8.3.	Electricity Charges/Fuel Costs	Rs. in Lakhs	Payments in lieu of electricity charges/fuel costs.		If city has functional treatment plant (cell 3.19) then electricity charges / fuel costs cannot be zero. Validation message: "Electricity charges/Fuel costs cannot be zero as sewerage treatment plant is functional. Enter correct value". If city has septic tank cleaning machine, then fuel cost of that machine should be included.
8.4.	Chemicals Costs	Rs. in Lakhs	Enter cost of chemical used in cleaning of open drain, community toilets, STPs, etc.		
8.5.	Repairs/Maintenance Costs	Rs. in Lakhs	Expenditure incurred in lieu of repairs or maintenance of the wastewater system.		
8.6.	Contractor Costs for Operation and Maintenance (O&M)	Rs. in Lakhs	If service related to O & M of sewerage pumping stations or STPs, cleaning of open drain, community toilets, septic tank has been outsourced or contracted then enter these expenditures.		
8.7.	Others (Specify)	Rs. in Lakhs	Expenditure incurred in lieu of other costs.		
	Total Annual Operating Expenses	**Rs. in Lakhs**	**Auto filled. This value cannot be zero or "NA". Validation message: "Enter value in Annual Operating Expenses related to sewerage, drains, community toilets, septic tank / pit cleaning services, etc."**		
	Financial Information - Annual Operating Revenues				
8.8.	Arrears at the Beginning of the Year	Rs. in Lakhs	Outstanding revenues in lieu of arrears in the beginning of the financial year.	Demand collection statement of taxes / charges, Records on Double entry accounting (Tally), Budget document	If no wastewater user charge/tax levied then enters "NA" in cells 8.8, 8.9, 9.2 and 9.3.
8.9.	Revenue Demand from User Charges - Sewerage Only	Rs. in Lakhs	Revenue demand from user charges (from customers with sewer connections, etc.).		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
8.10.	Revenue Demand from Tax/Cess - Sewerage only	Rs. in Lakhs	Revenue demand from tax/cess from sewerage only.		If no wastewater tax/cess, then enter zero. this should not be zero if value is greater than zero in previous year If increase in number of sewerage connections, then this should not lower than previous year.
8.11.	Revenue Demand from other Sources (e.g. Connection Costs/ /septage emptying charges / Donations etc.)	Rs. in Lakhs	Revenue demand from other revenues (e.g. connection costs/donations etc.).		If city has its own septic tank emptying vehicle (cell 11.10) or increase in number of sewerage connections, then this should not be zero. Validation message: "ULB provide septage emptying services, kindly enter value in Revenue demand from other sources (e.g. connection costs / septic tank cleaning / donations etc.)"
	Total Revenue Demand for current year	**Rs. in Lakhs**	**This is automatically generated based on total revenue demand for current year.**		
9.1.	**Total Revenue Demand for current year**	**Rs. in Lakhs**			
9.2.	Collection Against Arrears	Rs. in Lakhs	Total collections in the financial year against arrears.	Demand collection statement of taxes / charges, Records on Double entry accounting (Tally), Budget document	Should not be greater than arrears at the beginning of the year (cell 8.8) Validation message: "Collection against arrears cannot be more than Arrears at the beginning of previous year". If Arrears at the Beginning of the Year (cell 8.8) is zero or "NA" then this will be auto filled as "NA"
9.3.	Collection Against Current Demand	Rs. in Lakhs	Total collections in the financial year against the current demand.		Should not be greater than total revenue demand for current year (cell 9.1) Validation message: "Collection against current demand cannot be more than Total revenue demand". If value is entered in Revenue Demand from User Charges or Tax/Cess - Sewerage only (cells 8.9 or 8.10) then this will be auto filled as "NA"

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Storm Water Drainage Data				
10.1.	Total Length of Road Network	Km	Length of road network.	Town Planning Department/Public Works Department (PWD)	User cannot enter "NA" or zero and validation message will appear "Enter valid number in Total Length of Road Network"
10.2.	Total Length of Pucca Covered Drains	Km	Length of pucca covered drains.	Drainage Department /PWD	If no pucca covered drain, then this should be zero
10.3.	Number of Flood Prone Points in the City	Number	Number of areas in the city prone to floods.		If no flood prone points, then this should be zero
10.4.	Average Frequency of Flooding	Number	Average number of hours of flooding in the city.		If no flood this year, then this should be zero
	Additional Information (Optional)				
	Staff Information				
11.1.	Senior Management (Sanctioned)	Number	Number of sanctioned staff in senior managerial posts.	Sanctioned staff record and other municipal records at establishment department	
11.2.	Senior Management (Working)	Number	Number of staff working in senior managerial posts.		
11.3.	Engineers (Sanctioned)	Number	Number of posts sanctioned for engineers.		
11.4.	Engineers (Working)	Number	Number of engineers working currently.		
11.5.	Clerks/Accountants (Sanctioned)	Number	Number of posts sanctioned for clerks/accountants.		
11.6.	Clerks/Accountants (Working)	Number	Number of clerks/accountants working currently.		
11.7.	Labourers/Cleaners (Sanctioned)	Number	Number of posts sanctioned for labourers/cleaners.		
11.8.	Labourers/Cleaners (Working)	Number	Number of work labourers/cleaners working currently.		
	Total (Sanctioned)	**Number**	**This is automatically generated based on total number of sanctioned staff.**		
	Total (Working)	**Number**	**This is automatically generated based on total number of staff working. If value is entered either in Regular Staff and Administration (cell 8.1) or Outsourced /Contract Staff Costs (cell 8.2) then working staff cannot be zero or "NA". Validation message: "Kindly check Total working staff and Annual Operating expenses on Regular Staff and Administration or Outsourced /Contract Staff Costs".**		
	Septage Management				

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
11.9.	Does the City Practice Septage Management?	Yes (Y)/ No (N)	Septage management includes collection, transportation and treatment of waste from septic tanks.	Sanitation Department	If value is present in properties with onsite sanitation system (cell 2.3) then entry in this cell should not be NA
11.10.	Septage Sucking Machines Available within ULB	Number	Number of machines owned by ULB to collect waste from septic tanks.		If cell 11.9 is YES, then value should be greater than zero in either cell 11.10 or cell 11.11. Validation message: "Enter valid number for Septage sucking machines available within ULB or Private Septage machines licensed by ULB".
11.11.	Private Septage Machines Licensed by ULB	Number	Number of machines owned by private agencies and used by ULB to empty septic tanks.		
	Connection Costs for Sewerage Connections				
11.12.	Residential - General	Rs	Connection costs for residential connections.	Municipal records	If value is lower than previous year, then pop up message to draw user's attention: "Connection costs for residential sewerage connection is lower than previous year".
11.13.	Residential - Urban Poor	Rs	Connection costs for residential connections in slums.		
11.14.	Institutional	Rs	Connection costs for institutional connections.		
11.15.	Commercial	Rs	Connection costs for commercial connections.		
11.16.	Industrial	Rs	Connection costs for industrial connections.		
	Sewerage Tariff Structure - Flat Rate Tariff				
11.17.	Residential - General	Rs. /Month	Tariff for residential connections	Municipal records	If value is entered in collection against the current demand of the year (cell 9.3), then this cannot be zero or "NA" Validation message: "Enter value in Sewerage Tariff Structure". If value is lower than previous year, then pop up message to draw user's attention: "Flat rate sewerage tariff for residential connection is lower than previous year".
11.18.	Residential - Urban Poor	Rs. /Month	Tariff for residential connections in slums	Municipal records	
11.19.	Institutional	Rs. /Month	Tariff for institutional connections	Municipal records	
11.20.	Commercial	Rs. /Month	Tariff for commercial connections	Municipal records	
11.21.	Industrial	Rs. /Month	Tariff for industrial connections	Municipal records	

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Sewerage Tariff Structure - Volumetric Tariff				
11.22.	Residential - General	Rs. /KL			If value is lower than previous year, then pop up message to draw user's attention: "Volumetric sewerage tariff for residential connection is lower than previous year".
11.23.	Residential - Urban Poor	Rs. /KL			
11.24.	Institutional	Rs. /KL			
11.25.	Commercial	Rs. /KL			
11.26.	Industrial	Rs. /KL			

1.4.Solid Waste Management

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Door to Door Collection - Number of Households and Establishments Covered by Door to Door Collection				
1.1.	Number of Households Covered by Door to Door Collection	Number	Number of households that are covered by door to door collection by ULB or private agencies.	Sanitation/ SWM Department	User cannot enter value more than Total Households in the city (General info sheet cell 1.5). If door to door collection of MSW service is not provided by city, then this cell should be zero.
1.2.	Number of Hotels and Restaurants Covered by Door to Door Collection	Number	Number of hotels and restaurants that are covered by door to door collection by ULB or private agencies.		Sum of cell 1.2 to 1.4 cannot be more than number of commercial and other establishments (General Info sheet cell 1.20) If segregated data is not available for cells 1.2, 1.3 and 1.4 then only enter value in cell 1.5. If door to door collection of MSW service is not provided by city, then these all fields should be zero.
1.3.	Number of Commercial Establishments (Institutions, Offices) Covered by Door to Door Collection	Number	Number of commercial establishments that are covered by door to door collection by ULB or private agencies.		
1.4.	Number of any other Establishments (including Markets) Covered by Door to Door Collection	Number	Any other establishments (including markets) that are covered by door to door collection by ULB or private agencies.		
1.5.	Total Number of Establishments Covered by Door to Door Collection (if type-wise establishments is not available)	Number	Total number of establishments that are covered by door to door collection by ULB or private agencies in case type wise establishment details are unavailable.		
	Total Number of Households and Establishments covered by Door to Door Collection	**Number**	**This is automatically generated based on cell no 1.1 to 1.4** **If city is providing door to door collection, then value should not be zero**		
	Waste Generation				

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
2.1.	Waste Generated by Households	Metric Tonnes (MT)/ month	Quantity of waste generated by households/ residential properties.	Sanitation/ SWM Department. Also, Environment Status Reports/ SWM Detailed Project Reports (DPRs)	If value is lower than previous year, then pop up message to draw user's attention: "The Waste Generated by Households is lower than the previous year".
2.2.	Waste Generated by Street Sweeping	MT/ month	Quantity of waste generated by street sweeping.		
2.3.	Waste Generated by Hotels and Restaurants	MT/ month	Quantity of waste generated by hotels and restaurants.		
2.4.	Waste Generated by Markets (Vegetable Markets, Mandis etc.)	MT/ month	Quantity of waste generated by markets (vegetable markets, mandis etc.)		
2.5.	Waste Generated by Commercial Establishments (e.g. Institutions, etc.)	MT/ month	Quantity of waste generated by commercial establishments (e.g. Institutions etc.)		
2.6.	Waste Generated by Other Sources (e.g. Debris, Horticulture Waste etc.)	MT/ month	Quantity of waste generated by other sources (e.g. debris, horticulture waste etc.).		
2.7.	Total Waste Generated (if type-wise generation is not available)	MT/ month	Total quantity of waste generated estimated based on per capita waste generation norms (depending on population of city).		
	Total Waste Generated	**MT/ month**	**This is automatically generated based on cell no 2.1 to 2.7**		
		gms/day/capita	**Value cannot be zero, Validation message: "Total Waste Generated cannot be zero. Enter correct value". We have added upper limit of 700 gm/day/capita generation. Validation message: "Total Waste Generated per Capita is more than 700 gms per day".**		
	Waste Collection and Transportation - Details of Waste Received at Processing/Disposal Facilities				
2.8.	Quantity of Waste Received at Processing and Recycling Facilities	MT/ month	Quantity of waste received at inlet of solid waste treatment plant.	Log records at Treatment Plant	If treatment facilities are available then value is equal to input quantity at treatment facility (sum of cells 4.2, 4.4, 4.6, 4.8 and 4.10) or else zero. Validation message: "Quantity of waste received at processing and recycling facilities must be equal to XYZ".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					XYZ is equal to sum of cells 4.2, 4.4, 4.6, 4.8 and 4.10. Kindly enter this value.
2.9.	Quantity of Waste Received at Disposal Sites	MT/ month	Quantity of waste received at disposal sites.		This value should be equal to sum of (Total quantity of waste collected and transported to Processing/ Disposal Facilities and Quantity of post-processing rejects sent to dumpsite/ landfills (cell 4.12)) then subtraction of Quantity of waste received at processing and recycling facilities (cell 2.8) and Quantity of waste taken away by recyclers from intermediate points (cell 3.2) Validation message: "Quantity of waste received at disposal sites must be equal to XYZ". XYZ is calculated based on above formula.
	Total Waste Received at Processing/Disposal Facility and Recycled	**MT/ month**	**This is automatically generated based on total of cell 2.8 and 2.9. This should be equal to waste collection and transported by various types of SWM transportation vehicles, validation message: "Total waste received at processing/disposal facility and recycled should be equal to Total quantity of waste collected and transported to disposal site".**		
	Waste Collection and Transportation - Details of Waste Transported to Processing/Disposal Facilities				
2.10.	Number of Trucks Used for Transportation of Waste	Number	Number of trucks used for transportation of waste from secondary bins to treatment/disposal site.	Log records at treatment plants / disposal sites	
2.11.	Capacity of Each Trucks	MT	Carrying capacity of each truck.		
2.12.	Total Number of Trips Made per Day by Each Truck to the Disposal Site	Trips per day	Total number of trips made each day to treatment/ disposal site.		
	Total quantity of waste collected by trucks	**MT/ month**	**This is automatically generated based on multiplication of cell 2.10 to 2.12.**		
2.13.	Number of Dumper Placers Used for Transportation of Waste	Number	Number of dumper placers used for transportation of waste from secondary bins to treatment /disposal site.	Log records at treatment plants / disposal sites	

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
2.14.	Capacity of Each Dumper Placer	MT	Carrying capacity of each dumper placer.		
2.15.	Total Number of Trips Made per Day by Each Dumper Placer to the Disposal Site	Trips per day	Total number of trips made each day to treatment/ disposal site.		
	Total Quantity of Waste Collected by Dumper Placers	**MT/ month**	**This is automatically generated based on multiplication of cell 2.13 to 2.15.**		
2.16.	Number of Mini Lorries used for Transportation of Waste	Number	Number of mini lorries used for transportation of waste from secondary bins to treatment /disposal site.	Log records at treatment plants / disposal sites	
2.17.	Capacity of Each Mini Lorry	MT	Carrying capacity of each mini lorry.		
2.18.	Total Number of Trips Made per Day by Each Mini Lorry to the Disposal Site	Trips per day	Total number of trips made each day to treatment/ disposal site.		
	Total Quantity of Waste Collected by Mini Lorries	**MT/ month**	**This is automatically generated based on multiplication of cell 2.16 to 2.18.**		
2.19.	Number of Tractor Trailers Used for Transportation of Waste	Number	Number of tractor trailers used for transportation of waste from secondary bins to treatment /disposal site.	Log records at treatment plants / disposal sites	
2.20.	Capacity of Each Tractor Trailer	MT	Carrying capacity of each tractor trailer.		
2.21.	Total Number of Trips Made per Day by Each Tractor Trailer to the Disposal Site	Trips per day	Total number of trips made each day to treatment/ disposal site.		
	Total quantity of waste collected by tractor trailer	**MT/ month**	**This is automatically generated based on multiplication of cell 2.19 to 2.21.**		
2.22.	Number of Tipper Trucks Used for Transportation of Waste	Number	Number of tipper trucks used for transportation of waste from secondary bins to treatment /disposal site.	Log records at treatment plants / disposal sites	

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
2.23.	Capacity of Each Tipper Trucks	MT	Carrying capacity of each tipper truck.		
2.24.	Total Number of Trips Made per Day by Each Tipper Trucks to the Disposal Site	Trips per day	Total number of trips made each day to treatment/ disposal site.		
	Total Quantity of Waste Collected by Tipper Trucks	**MT/ month**	**This is automatically generated based on multiplication of cell 2.22 to 2.24.**		
2.25.	Number of Three-Wheeler Auto Tippers Used for Transportation of Waste	Number	Number of three-wheeler auto tippers used for transportation of waste from secondary bins to treatment /disposal site.	Log records at treatment plants / disposal sites	
2.26.	Capacity of Each Three-Wheeler Auto Tipper	MT	Carrying capacity of each three-wheeler auto tipper.		
2.27.	Total Number of Trips Made per Day by Each Three-Wheeler Auto Tipper to the Disposal Site	Trips per day	Total number of trips made each day to treatment/ disposal site.		
	Total Quantity of Waste Collected by Three-Wheeler Auto Tippers	**MT/ month**	**This is automatically generated based on multiplication of cell 2.25 to 2.27.**		
	Total Quantity of Waste Collected and Transported to Processing / Disposal Site	**MT/ month**	**This is automatically generated based on summation of quantity of waste collected by various types of SWM transportation vehicles.** **This cannot be more than total waste generated.**		
	Segregation of Waste				
3.1.	Quantity of Waste Arriving at Processing/ Disposal Facility in Segregated Manner	MT/ month	Quantity of waste received at inlet of solid waste treatment plant in a segregated manner, i.e., biodegradable and non-degradable waste separated.	Log records at treatment plants / disposal sites	This cannot be more than Total Quantity of Waste Collected and Transported to Processing / Disposal Site. Validation message: "Quantity of waste arriving at Processing/ Disposal facility in segregated manner cannot be more than Total quantity of waste collected and transported".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					This value is for segregation at source (household level) only. If there is no segregation, then it should be zero.
3.2.	Quantity of Waste taken Away by Recyclers from Intermediate Points	MT/ month	Quantity of waste taken by recyclers from secondary collection points/treatment/disposal sites.	Sanitation/ SWM Department	If no recycler then it should be zero.
	Quantity of Waste Processing				
4.1.	Installed Capacity of Composting Plant	MT/ month	Installed capacity of composting plant.	Sanitation/ SWM Department Log records at Treatment Plant	
4.2.	Waste Quantity Input at the Composting Plant	MT/ month	Quantity of waste received at composting plant		User cannot enter value more than Installed Capacity of Composting Plant (cell 4.1) and validation message will appear: "'Waste Quantity Input at the Composting Plant' cannot be more than the 'Installed Capacity of Composting Plant' in the city. Enter correct values."
4.3.	Installed Capacity of Vermi-composting Plant	MT/ month	Installed capacity of vermi-composting plant.		
4.4.	Waste Quantity Input at the Vermi-composting Plant	MT/ month	Quantity of waste received at vermi-composting plant.		User cannot enter value more than Installed Capacity of Composting Plant (cell 4.3) and validation message will appear: "'Waste Quantity Input at the Vermi-composting Plant' cannot be more than the 'Installed Capacity of Vermi-composting Plant' in the city. Enter correct values."
4.5.	Installed Capacity of Refuse Derived Fuel	MT/ month	Installed capacity of refuse derived fuel.		
4.6.	Waste Quantity Input at the Refuse Derived Fuel	MT/ month	Quantity of waste received at refuse derived fuel.		User cannot enter value more than Installed Capacity of Composting Plant (cell 4.5) and validation message will appear "'Waste Quantity Input at the Refuse Derived Fuel' cannot be more than the 'Installed Capacity of Refuse Derived Fuel' in the city. Enter correct values."

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
4.7.	Installed Capacity of Bio-Methanation/ Waste-to-Energy Plants	MT/ month	Installed capacity of bio-methanation/ waste-to-energy plants.		
4.8.	Waste Quantity Input at Bio-methanation/ Waste-to-Energy plants	MT/ month	Quantity of waste received at bio-methanation/ waste-to-energy plants.		User cannot enter value more than Installed Capacity of Composting Plant (cell 4.7) and validation message will appear: "'Waste Quantity Input at Bio methanation/ Waste-to-Energy plants' cannot be more than the 'Installed Capacity of Bio Methanation/ Waste-to-Energy Plants' in the city. Enter correct values."
4.9.	Installed Capacity of any other Processing Facilities	MT/ month	Installed capacity of any other processing facility.		
4.10.	Waste Quantity Input at other Processing Facilities	MT/ month	Quantity of waste received at any other processing facility.		User cannot enter value more than Installed Capacity of Composting Plant (cell 4.9) and validation message will appear: "'Waste Quantity Input at other processing facilities' cannot be more than the 'Installed Capacity of any other processing facilities' in the city. Enter correct values."
	Total Installed Capacity of Processing Facilities	**MT/ month**	**This is automatically generated based on summation of cells 4.1, 4.3, 4.5, 4.7 and 4.9.**		
	Total Waste Quantity Input at all Types of Processing Facilities	**MT/ month**	**This is automatically generated based on summation of cells 4.2, 4.4, 4.6, 4.8 and 4.10. Should not be more than total capacity of processing facility and waste collected. Cannot be more than Total quantity of waste collected and transported to processing / disposal site, validation message: "Quantity of waste arriving at Processing/ Disposal facility in segregated manner cannot be more than Total quantity of waste collected and transported".**		
4.11.	Quantity of Waste Rejected by Processing Facilities at Intake Point	MT/ month	Quantity of waste rejected at intake of treatment plants.	Log records at Treatment Plant	
4.12.	Quantity of Post-Processing Rejects Sent to Dumpsite/Landfills	MT/ month	Quantity of waste rejected after treatment of solid waste.		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Total Waste Processed in the ULB	**MT/ month**	**This is automatically generated based on summation of Quantity of Waste taken Away by Recyclers from Intermediate Points (cell 3.2) and total waste input in all types of processing facilities subtracting the value of quantity of waste rejected at processing facilities at intake points (cell 4.11).**		
	Quantity of Waste Disposal				
5.1.	Quantity of Waste Disposed in Compliant Landfill Sites	MT/ month	Quantity of waste received at the scientific landfill site.	Log records at Landfill site	If scientific compliant landfill site is not available, then this should be NA Cannot be more than Total quantity of waste collected and transported to processing / disposal site, validation message: "Waste disposed in landfill sites cannot be more than the Total quantity of waste collected and transported. Enter correct value".
5.2.	Quantity of Waste Disposed in Open Dump Sites	MT/ month	Quantity of waste received at the open dump sites.	Sanitation/ SWM Department. Log records at open dumps	If there is no open dump site in city, then this should be zero. Cannot be more than Total quantity of waste collected and transported to processing / disposal site, validation message: "Waste disposed in open dump sites cannot be more than the Total quantity of waste collected and transported. Enter correct value."
	Customer Service				
6.1.	Complaints Received During the Year	Number	Total number complaints received in a year.	Computerised/Manual consumer grievance redressal records	This field should not be zero or NA. If no door to door collection then complaints related to road sweeping, secondary collection, etc., should be entered. User cannot enter "NA" and validation message will appear: "Enter valid number in SWM related Complaints received during the year"
6.2.	Complaints Resolved within 24 Hours During the Year	Number	Total number of complaints redressed within 24 hours of registering.		This field should not be NA. User cannot enter value more than cell 6.1 and validation message will appear

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					"Complaints resolved cannot be more than Complaints received. Enter correct value". User cannot enter "NA" and validation message will appear: "Enter valid number in SWM related Complaints resolved within 24 hours during the year"
	Financial Information - Operational Expenditure on SWM During Previous Year				
7.1.	Regular Staff and Administration	Rs. in Lakhs	Payments in lieu of staff and administrative expenditure.	Records on Double entry accounting (Tally), Budget document	Summation of Regular staff and administration (cell 7.1) and Outsourced / contracted staff costs (cell 7.2) cannot be zero. Validation message: "Total staff costs cannot be zero. Enter correct values".
7.2.	Outsourced/Contracted Staff Costs	Rs. in Lakhs	Payments in lieu of salaries to outsourced or contracted staff.		
7.3.	Electricity Charges/Fuel Costs	Rs. in Lakhs	Payments in lieu of electricity charges/fuel costs.		If solid waste collection and transportation is done by ULBs then this value should not be zero.
7.4.	Chemical Costs	Rs. in Lakhs	Payments in lieu of chemical costs.		
7.5.	Repair/Maintenance Costs	Rs. in Lakhs	Expenditure incurred in lieu of repairs or maintenance for SWM.		If city owns the collection and transportation vehicles, then this field should not be zero or "NA".
7.6.	Contracted Services Cost	Rs. in Lakhs	Expenditure incurred in lieu of contracted services like primary collection/ transportation, etc.		This field should not be zero or NA if door to door collection / transportation / treatment service has been given on contract.
7.7.	Other Costs (Specify)	Rs. in Lakhs	Expenditure incurred in lieu of other costs.		
	Total Operational Expenses	**Rs. in Lakhs**	**If city provide door to door services then expenditure cannot be zero or "NA", validation message: "Total Operational Expenses cannot be Zero or NA".**		
	Financial Information - Operational Revenues from SWM during Previous Year				
7.8.	Arrears at the beginning of current Year	Rs. in Lakhs	Outstanding revenues in lieu of arrears in the beginning of the financial year.	Records on Double entry accounting (Tally), Budget document	If no cleaning charge/tax for solid waste management then enter zero. Cannot

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
7.9.	Tax/Cess - Solid Waste only	Rs. in Lakhs	Revenue demand from tax/cess levied for SWM.		enter "NA" in cells 7.8 to 7.15. Validation message: "Not Allowed 'NA' in Financial Information - Operational Revenues from SWM during previous year, Enter correct Value ".
7.10.	User Charges	Rs. in Lakhs	Revenue demand from user charges for SWM.		
7.11.	Fixed Charges based on Property Tax/ State Taxes/Cess/Surcharges	Rs. in Lakhs	Revenue demand from fixed charges based on property tax for SWM.		
7.12.	Sale of Recyclables	Rs. in Lakhs	Revenue demand from sale of recyclables.		
7.13.	Sale from Processing - Compost/Energy	Rs. in Lakhs	Revenue demand from sale of compost.		
7.14.	Royalty	Rs. in Lakhs	Revenue demand from royalty.		
7.15.	Others (Specify)	Rs. in Lakhs	Revenue demand from other revenues (e.g. penalty).		
	Total Revenue Demand Raised for the current Year	**Rs. in Lakhs**	**This is automatically generated based on summation of cells 7.9 to 7.15. Should not be zero if value is entered in previous year, validation message: "The entry for Total Revenue Demand is non-Zero in the last year. Hence Zero is not a valid entry for the present year".**		
8.1.	**Total Revenue Demand Raised for the current Year**	**Rs. in Lakhs**			
8.2.	Collection Against Arrears	Rs. in Lakhs	Total collections in the financial year against arrears.	Demand and collection statement of taxes, Records on Double entry accounting (Tally)	If solid waste tax/user charge is not levied, then enters NA. Should not be greater than Arrears at the beginning of current Year (cell 7.8), validation message: "Collection against arrears cannot be more than Arrears at the beginning of previous year". If value is entered in Arrears at the beginning of current Year (cell 7.8) then user cannot enter "NA" and validation message will appear: "Enter valid number in collection against arrears"
8.3.	Collection against Current Demand	Rs. in Lakhs	Total collections in the financial year against the current demand.		If solid waste tax/user charge is not levied, then NA. Should not be greater than Total Revenue Demand Raised for the current Year (cell

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					8.1), validation message: "Collection against current demand cannot be more than Total revenue demand". If value is entered in Tax/Cess - Solid Waste only (cell 7.9), User Charges (cell 7.10) or Fixed Charges based on Property Tax/ State Taxes/ Cess/ Surcharges (cell 7.11) then user cannot enter "NA" and validation message will appear: "Enter valid number in collection against current demand"
	Additional Information (Optional)				
	Staff Information				
9.1.	Senior Management-Health Officer (Sanctioned)	Number	Number of sanctioned staff in senior managerial posts.	Sanctioned staff record and other municipal records at establishment department	
9.2.	Senior Management-Health Officer (Working)	Number	Number of staff working in senior managerial posts.		
9.3.	Sanitary Inspector (Sanctioned)	Number	Number of posts sanctioned for sanitary inspector.		
9.4.	Sanitary Inspector (Working)	Number	Number of sanitary inspectors working currently.		
9.5.	Sanitary Supervisor (Sanctioned)	Number	Number of posts sanctioned for sanitary supervisor.		
9.6.	Sanitary Supervisor (Working)	Number	Number of sanitary supervisors working currently.		
9.7.	Masteries/Safari Karamchari (Sanctioned)	Number	Number of posts sanctioned for maistries/safai karamchari.		
9.8.	Maistries/Safai Karamchari (Working)	Number	Number of maistries/safai karamchari working currently.		
9.9.	Cleaners/Drivers (Sanctioned)	Number	Number of posts sanctioned for cleaners/drivers.		
9.10.	Cleaners/Drivers (Working)	Number	Number of cleaners/drivers working currently.		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
9.11.	Labourers (Sanctioned)	Number	Number of posts sanctioned for labourers.		
9.12.	Labourers (Working)	Number	Number of labourers working currently.		
9.13.	Others (Specify)	Number	Any other officers working currently.		
	Total (Sanctioned)	**Number**	**This is automatically generated based on summation of cells 9.1, 9.3, 9.5, 9.7, 9.9 ad 9.11. This value should not be zero. Validation message: "Total (Sanctioned) staff is zero".**		
	Total (Working)	**Number**	**This is automatically generated based on summation of cells 9.2, 9.4, 9.6, 9.8, 9.10, 9.12 and 9.13. This value should not be zero if summation of Regular Staff & Administration (cell 7.1) and Outsourced/Contracted Staff Costs (cell 7.2) have value. Validation message: "Kindly check Total working staff and Annual Operating expenses on Regular Staff and Administration or Outsourced /Contract Staff Costs".**		
9.14.	Are Daily Records of Waste Received at Compliant Landfill Maintained (Municipal Solid Waste (MSW) 2000)	Y/N			If Quantity of waste disposed in compliant landfill sites (cell 5.1) is zero or NA, then this will be auto-filled as "NA".
9.15.	Is Weighbridge Available at Landfill Site?	Y/N			
9.16.	Are Daily Records of Waste Received at Open Dumpsites Maintained?	Y/N			This should not be NA
9.17.	Is Weighbridge Available at Dumpsite?	Y/N			
	User Charges				
9.18.	Residential	Rs. / Month	Connection costs for households/ residential properties.	Municipal records	This cell should not be zero or NA, if Collection against Current Demand (cell 8.3) has value, validation message: "Enter value in User charges". If value is lower than previous year, then pop up message to draw user's attention: "User charge is lower than previous year".
9.19.	Slum Household	Rs. / Month	Connection costs for slum households.	Municipal records	

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
9.20.	Commercial Establishment	Rs. / Month	Connection costs for commercial establishment.	Municipal records	
9.21.	Fixed Charge through Property Tax	Rs. / Month	Fixed charge levied as a percentage of property tax.	Municipal records	This cannot be zero or NA, if value is entered in Fixed Charges based on Property Tax/ State Taxes/Cess/Surcharges (cell 7.11), validation message: "Enter value in User charges - Fixed charge through property tax".
9.22.	Others	Rs. / Month	Connection costs for other properties.	Municipal records	

1.5.Equity Related Information

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Slums				
	General Details				
1.1.	Number of Slum Settlements	Number	Total number of slum settlements, both notified and non-notified.	Urban Community Development (UCD) department, Slum survey carried out for various government schemes	If no slum in the city (General info cell1.9=0) then Cells 1.1 to 1.33 will be auto filled as "NA". If household size in slum is lower than 3 or higher than 7 then pop up message to draw user's attention: "Family size in slum is lower than average 3 persons per family OR is higher than average 7 persons per family".
1.2.	Population in Slums	Number	Total population in slums.		
1.3.	Households in Slums	Number	Total households in slums.		
1.4.	**Household size in slums**	**Ratio**	**This is automatically generated**		
1.5.	Total Number of Slums Notified by State	Number	Total number of notified slums in the state.	UCD department	This number should not be more than Number of Slum Settlements (cell 1.1)
1.6.	*Number of Slums that have Been De-notified Since Census 2001*	Number	Number of slums that have been de-notified in the state.		
	Policy provision for slums- Questions No. 1.7 to 1.19 have been deleted in the online data entry module from year 2017-18 onwards				
1.7.	Does the ULB Provide Individual Water Supply and Sanitation Services to Slums?	Y/N	Note if the ULB has policy or provides individual water supply and sanitation services to slum settlements.	UCD department	Cells 1.7 to 1.19 have been deleted in the online data entry module from year 2017-18 onwards.
1.8.	Does it exclude Non-notified Slums?	Y/N	Whether the above provision applies to non-notified slums as well.		
1.9.	Are Slum Settlements Covered under Property Tax Assessment?	Y/N	Note if the slum settlements are covered under the property tax assessment, and part of property tax records.		
1.10.	*If Yes, Number of Slum Settlements Covered under Property Tax Assessment*	Number	Number of slum settlements covered under property tax assessment.		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
1.11.	Does the ULB have a Specific Department or Cell (e.g. UCD) responsible for service provisions in slums?	Y/N	Please note whether the ULB has a dedicated department responsible for services to slum settlements.		
1.12.	Are external agencies (like non- governmental organisations (NGOs), community-based organisations (CBOs), and private agencies) involved in service provision to slums?	Y/N	Please note if agencies like / NGOs/CBOs, etc. are involved in service provision		
1.13.	Does the ULB Earmark Funds for the Poor in Budgetary Allocation?	Y/N	Please note if the ULB allocates funds in the municipal budget for slum settlements.		
1.14.	Percentage of Funds Allocated in the Budget for Pro Poor Activities	Percentage (%)	Percentage of funds allocated in the budget for activities related to slum settlements.		
1.15.	Percentage Expenditure for Service Provision in Slums to Total ULB Expenditure	Percentage (%)	Percentage of expenditure incurred in service provision to slum settlements.		
1.16.	Do Slum Households Have Options to Pay Connection Charges in Instalments?	Y/N	Please note if residents in slum settlements have provision to pay the connection charges in instalments (once in three months, etc.).		
1.17.	Specify Documents Needed to Obtain Individual Water/Sewer Connections in Slums	(1/2/3)	Please note the documents that need to be provided by residents in slum settlements to obtain water/sewer connections.		
	1: Property Tax Bill,2: Ration Card,3: Others, specify				
1.18.	Have any Surveys been Conducted as Part of Programmes/ Schemes to Enhance Services in Slums?	Y/N	Please note if any surveys have been carried out to assess services to slums.		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
1.19.	*If Yes, Mention Programme/ Scheme under which the Surveys have been Undertaken?*	(1/2/3/4/5)	Please mention programme/ scheme under which these surveys have been carried out.		
	1: Nirmal Gujarat, 2: Maharashtra Sujal Nirmal Abhiyan (MSNA), 3: Integrated Housing and Slum Development Programme (IHSDP), 4: Jawaharlal Nehru National Urban Renewal Mission (JnNURM), 5: Swahch Bharat Mission, 6: Others, specify				
	Services in slums at city level				
1.20.	Number of Settlements Which have an Internal Water Supply Network	Number	Number of slum settlements that are covered by water supply network.	Water supply connection register / UCD department	If individual water supply connections are not provided in slums, then this cell should be zero. Value should not be more than total slum settlements in city (cell 1.1), validation message: “"Total slum settlements with water supply network" cannot be more than "total number of slum settlements". Enter correct value”. If value is entered in number of individual water connections in slums (cell 1.21) then this cell should not zero or “NA”, validation message: “Enter valid number in "Number of settlements which have an internal water supply network".
1.21.	Number of Individual Water Connections in Slums	Number	Number of individual water connections provided in slums.		If individual water supply connections are not provided in slums, then it should be zero. If water supply coverage in the city is 100% then all slum households should have individual water connections (value should be equal to cell 1.3). This should not be more than total slum households (cell 1.3), validation message: “The Number of individual water connections in slums cannot be more than the number of households in slums. Enter correct value”. Slum unserved households (Total slum households cell 1.3 – slum households

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					with individual water supply connections cell 1.21) cannot be more than total unserved households in a city (General info sheet 1.5 – water supply sheet sum of cells 1.13 to 1.15), validation message: "Slum HHs unserved with individual water connection cannot be more than unserved HHs in a city".
1.22.	*Number of New Connections Given in Slums in the Current Year*	Number	Number of individual connections provided in the current year in the slums.		This question is deleted in the online data entry module from year 2017-18 onwards.
1.23.	Number of Group Connections in Slums	Number	Number of group connections provided in slums.		
1.24.	Number Functional Stand-posts in Slums	Number	Number of functional stand-posts provided in slums.		User cannot enter value more than total public taps in the city (water sheet summation of cells 4.4 to 4.6), validation message: "Number functional stand posts in slums cannot more than total public tabs in the city".
1.25.	*Number of Stand-posts Converted to Group Connections for Slums*	Number	Number of stand-posts that have been converted to group connections in slums.		
1.26.	Number of Individual Toilets in Slums	Number	Number of individual toilets provided in slums.	Records of sanitation department	If city is declared open defecation free and all households in city have individual toilets (Cell 3.13 is equal to general information sheet cell 1.5) then all slum households should have individual toilets, validation message: "Enter xyz value in Number of individual toilets in slums", XYZ = total slum households (cell 1.3). Slum unserved households with individual toilet (Total slum households cell 1.3 – slum households with individual toilets cell 1.26) cannot be more than unserved HHs in a city (General info sheet 1.5 – cell 3.12),

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					validation message: "Slum HHs unserved with individual toilet cannot be more than unserved HHs in a city". This should not be more than total slum households (cell 1.3), validation message: "The Number of individual toilets in slums cannot be more than the number of households in slums. Enter correct value". If value is lower than previous year, then pop up message to draw user's attention: "The Number of individual toilets in slums is less than the previous year".
1.27.	*Number of Individual Toilets Constructed in Slums in Current Year*	Number	Number of individual toilets constructed in the current year in slums.		This question is deleted in the online data entry module from year 2017-18 onwards.
1.28.	Number of Seats in Pay-n-Use Toilets (Functional Toilets) in Slums	Number	Number of functional seats in pay-n-use toilets in slums.		Enter zero if there is no pay –n use toilets in the slums
1.29.	Number of Seats in Community Toilets (Functional Toilets) in Slums	Number	Number of functional seats in community toilets in slums.		Enter zero if there are no community toilets in the slums.
1.30.	Number of Settlements which have an Internal Underground Sewerage Network	Number	Number of slum settlements that are covered by underground sewerage network.		If no sewerage system in city, then it should be NA. Validation message: The Number of Properties with sewer connections is zero. This item is not applicable. Enter "NA". Value cannot be more than Total slum settlements (cell 1.1), validation message: "Total slum settlements with sewerage network cannot be more than "total number of slum settlements". Enter correct value". If value is entered in number of sewerage connections in slums (cell 1.31) then this

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					cell should not zero or "NA", validation message: "Enter valid number in "Number of settlements which have an internal sewage network".
1.31.	Number of Sewerage Connections in Slums	Number	Number of sewerage connections provided in slums.		If 100% sewerage connection coverage in the city, then this value should be equal to total slum households (cell 1.3). This should not be more than Number of individual toilets in slum (cell 1.26), validation message: "Total number of sewerage connections in slums cannot be more than the number of toilets in slums. Enter correct value". Slum unserved households with sewerage connections (Total slum households cell 1.3 – slum households with sewerage connections cell 1.31) cannot be more than unserved HHs with sewerage in a city (General info sheet cell 1.5 – cell 3.13), validation message: "Slum HHs unserved with sewerage connection cannot be more than unserved HHs in a city". If value is lower than previous year, then verify and add reason in remark.
1.32.	*Number of Community and Pay-n-Use Toilets without Access to Safe Disposal Systems*	Number	Number of community and pay-n-use toilets that are not connected to either a sewerage network or septic tank.		This question is deleted in the online data entry module from year 2017-18 onwards.
1.33.	Number of Slum Households served by door to door collection of MSW (Municipal Solid Waste)	Number	Number of slum households that are covered by door to door collection of solid waste.		If no door to door MSW collection in slums, then enter "zero". If 100% door to door MSW collection in the city, then this value should be equal to total slum households (cell 1.3). This should not be more than total slum households (cell 1.3), validation message: "The Number of households served by

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					door to door collection in slums cannot be more than the number of households in slums. Enter correct value". Slum unserved households with MSW door to door collection (Total slum households cell 1.3 – slum households with door to door collection of MSW cell 1.33) cannot be more than unserved HHs with door to door collection of MSW in a city (General info sheet cell 1.5 – SWM sheet cell 1.1), validation message: "Slum HHs unserved with door to door collection cannot be more than unserved HHs in a city".
	** Attach List of slums with Ward Number; Survey/Town Planning/Final Plot No's; Area of each slum and Age of each slum*				
	Water supply				
	Network Details				
2.1.	Length of Trunk Main (Source to treatment plant)	Km	Please note the length of trunk main network from various water supply sources to the treatment plants.	Water Supply Department	If city has water treatment plant (water supply sheet cell 2.2 has value) then this should not be "NA", validation message: "Enter valid number in "Length of trunk main (Source to treatment plant)". This cell cannot be zero if city has water treatment plant (water supply sheet cell 2.2 has value), validation message: "The entry for "Volume of water produced through Surface Water Sources" in water sheet is non-Zero. Hence Zero is not a valid entry ". If value is lower than previous year, then pop up message to draw user's attention: "Total length of trunk main is lower than previous year".
2.2.	Length of Transmission Mains (Treatment plant to distribution station)	Km	Please note the length of transmission mains of water supply network.		If city supplies water without any treatment (i.e. ground water supply, etc.,) then, this should have value (length from source to distribution station).

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					If value is lower than previous year, then pop up message to draw user's attention: "Total length of transmission mains is lower than previous year".
2.3.	*Length of Trunk and/or Transmission Mains that have Undergone Renovation*	Km	Please note the length of *trunk and/or transmission mains* of water supply network that has undergone repairs in the previous three years.		If this value is higher than 50% of total length of trunk and transmission mains (summation of cell 2.1 and cell 2.2) then pop up message to draw user's attention: "More than half the length of trunk and/or transmission mains have undergone renovation".
2.4.	Length of Distribution Network	Km	Please note the length of distribution network of water supply.		If value is lower than previous year, then pop up message to draw user's attention: "Total length of distribution network is lower than previous year".
2.5.	Number of Pipe Breaks in the Current Year	Number	Number of pipe breaks (on trunk main/transmission/ distribution network) in the current year.		
2.6.	Total Area under Water Distribution Network	Sq. km	Total area covered by water distribution network.		If value is lower than previous year, then verify and add reason in remark. User cannot enter value more than total area of the city (General info sheet cell 1.17), validation message: "Total area under water distribution network cannot be more than total city area".
2.7.	Length of Road Network	Km	Total length of road network.		Auto filled from sanitation sheet cell 10.1
	Source Level Details				
2.8.	Average Daily Quantity of Water Supplied from Ground Sources	MLD	Average of daily quantity of water supplied through ground water sources.	Log records at source/ Water Treatment Plant (WTP)/ Water Supply Department	Auto filled from Water Sheet cell 2.4 - Volume of water produced through Ground water (power pumps)
2.9.	Average Daily Quantity of Water Supplied from Own Surface Sources	MLD	Average of daily quantity of water supplied through own surface sources.		
2.10.	Average Daily Quantity of Water Supplied from Bulk Raw Purchase	MLD	Average of daily quantity of water supplied through bulk raw purchase.		If value is there in water sheet cell 2.2, volume of water produced through surface source and city is purchasing

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
2.11.	Average Daily Quantity of Water Supplied from Bulk Treated Water	MLD	Average of daily quantity of water supplied through bulk treated water.		water bulk water then this cell should have value. Summation of bulk raw and treated purchase (cell 2.10 and cell 2.11) cannot be zero, if value is entered in Bulk (Raw/Treated) Water Charges (Water sheet cell 8.6), validation message: "Enter value in "Average daily quantity of water supplied from bulk raw purchase or bulk treated water".
2.12.	Average Daily Quantity of Water Supplied from other Sources (Desalination, Rainwater Harvesting, etc.)	MLD	Average of daily quantity of water supplied through other sources (desalination, rainwater harvesting, etc.).		
2.13.	**Total Daily Quantity of Water Supplied from Source**	**MLD**	**This is automatically generated. This value should not be less than Total Volume of water produced at treatment plant (summation of water sheet cells 2.2, 2.4 and 2.5), validation message: "Total volume of treated water produced cannot be more than the Total water supplied from source, Enter correct value."**		
2.14.	Average Daily Quantity of Water Supplied from Water Distribution Station (WDS)	MLD	Average of daily quantity of water supplied through WDS.	Log records at WDS/ Water Supply Department	This value should not be more than Total Volume of water produced at treatment plant (summation of water sheet cells 2.2, 2.4 and 2.5), validation message: "Water supplied cannot be more than the Total Volume of water produced. Enter correct value". Should not be less than sum of volume of water billed, Total Volume of water unbilled (free supplies to Public taps) and Total Volume of water unbilled (free connections e.g. Religious institutions etc.) (summation of water sheet cells 2.6 to 2.13), validation message: "Total volume of water distributed from WDS cannot be less than total quantity of billed and unbilled water supply".
2.15.	Average Pressure at WDS	Meters	Average pressure of water supplied from WDS.	Log records at WDS/ Water Supply Department	Zero or "NA" is not a valid entry if value is present in Average Daily Quantity of

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					Water Supplied from Water Distribution Station (cell 2.14). If value is more than 30 meters, then pop up message to draw user's attention: Average pressure at distribution stations is more than 30 meters.
2.16.	Average Pressure at Consumer End	Meters	Average pressure at consumer end.	Log records at WDS/ Water Supply Department	If value is more than 20 meters, then pop up message to draw user's attention: "Average pressure at consumer end is more than 20 meters".
2.17.	Does the ULB Conduct Regular Assessment of Availability of Sources Through Preparation of Depletion Statements, etc.?	Y/N	Please note if the ULB conducts annual assessments of water availability.	Water Supply Department	
2.18.	Capacity addition/ Augmentation to Present Supply of Water Commissioned Over Next Three Years from Projects/Schemes/Bulk Purchase	MLD	Please note if any projects to augment water supply is currently undertaken by the ULB.		
	Audits				
2.19.	Has the ULB Conducted Studies for Preliminary or Detailed Water Audits?	Y/N	Please note if the ULB has conducted any preliminary or detailed water audits.	Water Supply Department	
2.20.	Has the ULB Conducted Studies for Energy Audits?	Y/N	Please note if the ULB has conducted any studies for energy audits.		
2.21.	Number of Pumps at Water Source, Treatment and Distribution Points Inspected in the Current Year	Number	Number of pumps inspected in the current year for efficiency, etc.		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
2.22.	Number of Pumps Replaced/Repaired in the Current Year	Number	Number of pumps replaced/ repaired in the current year.		
	Metering				
2.23.	Percentage of Consumer Meters that are Functional	Percentage (%)	Percentage of consumer level meters that re functional.	Water Supply Department	This question is deleted in the online data entry module from year 2017-18 onwards.
2.24.	Number of Consumer Meters that are Repaired/Replaced in the Current Year	Number	Number of consumer meters that are repaired/replaced in the current year.		If there is zero value in Total number of metered and functional connections (domestic, bulk supply, others), then enter "NA", validation message: "There are no functional metered connections. This item is not applicable. Enter NA."
2.25.	Metered Consumption (Where Consumer Meters are Functional)	MLD	Water consumption recorded through metered connections		If there is zero value in Total number of metered and functional connections (domestic, bulk supply, others), then enter "NA", validation message: "There are no functional metered connections. This item is not applicable. Enter NA."
2.26.	Number of Connections Exempted from Property Tax/Water Bills	Number	Number of connections exempted from property tax/ water bills.		This should not be more than total number of water supply connections. Validation message: ""Total number of connections exempted from property tax/ water bills" cannot be more than "Total water connections". Enter correct value." Cannot be zero or NA, if value is present in Total Volume of water unbilled (water sheet cell 2.13), validation message: "Enter value in "Number of connections exempted from property tax/ water bills".
	Complaint Redressal System				
2.27.	Is a System to Record Complaints Received and Redressed Properly Maintained by the ULB?	Y/N	Please note if system to record complaints received and redressed properly maintained by the ULB.		This question is deleted in the online data entry module from year 2017-18 onwards.

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
2.28.	Does the Redressal System Allow for Monitoring and Analysing Complaints on a Regular Basis?	Y/N	Please note if redressal system allows for monitoring and analysing complaints on a regular basis.		
	Unauthorised Connections				
2.29.	Does the ULB have any Measures to Identify and/or Regularise Illegal Connections?	Y/N	Please note if ULB have any measures to identify and/or regularise illegal connections.	Water Supply Department	
	For Water Supply				
2.30.	Estimated Number of Illegal Connections	Number	Number of illegal connections.	Surveys/Water Supply Department	If no water supply system, then enters "NA". User cannot enter value more than total number of water supply connections. Validation message: "Total number of illegal connections" cannot be more than "Total water connections". Enter correct value".
2.31.	Percentage of Illegal Connections Regularised	Percentage (%)	Percentage of illegal connections regularised.		
	For Wastewater				
2.32.	Estimated Number of Illegal Connections	Number	Number of illegal connections	Surveys/Wastewater Department	If no sewerage system in city, then this cell will be auto filled as "NA". User cannot enter value more than properties with sewerage connections (sanitation sheet cell 2.2). Validation message: "Total number of illegal connections" cannot be more than "Total sewer connections". Enter correct value".
2.33.	Percentage of Illegal Connections Regularised	Percentage (%)	Percentage of illegal connections regularised		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Sewerage and/or Sullage Network				
	Type of System				
3.1.	Does the ULB have an Underground Piped Network?	Y/N	Please note if the ULB has an underground sewerage network.	Surveys/Wastewater Department	If city has sewerage connection (sanitation sheet cell 2.2 is >0) then this will be auto filled as "Yes".
3.2.	Total Length of Underground Piped Network	Km	Please note length of underground piped network (rising/ trunk main and laterals and sub-mains)		If cell 3.1 is "No" then cells 3.2 and 3.3 will be auto filled as "NA". If value is lower than previous year, then pop up message to draw user's attention: "Total length of underground piped network is lower than previous year".
3.3.	*Total area Covered by underground piped network*	Sq. km	Please note area covered by underground piped network		This should not be more than total area of the city (General info sheet cell 1.17). Validation message: "Total area covered by underground piped network cannot be more than Total city area. Enter correct value". If value is present in previous year, then this should not be lower than that and if so then verify and add reason in remark.
3.4.	Does the ULB have a Covered Drainage Network?	Y/N	Please note if the ULB has a covered drainage network.		Should not be NO or NA, if city has pucca covered drain (sanitation sheet cell 10.2 is >0)
3.5.	*Length of Covered Drainage Network*	Km	Please note length of covered drainage network.		If cell 3.4 is "No" then cells 3.5 and 3.6 will be auto filled as "NA". If cell 3.4 is yes, then this value cannot be zero, validation message: "If covered drainage network is present, then length cannot be zero. Enter correct value". If value is lower than previous year, then verify and add reason in remark.
3.6.	*Area Covered by Covered Drainage Network*	Sq. km	Please note area covered by covered drainage network.		If value is lower than previous year, then verify and add reason in remark. If cell 3.4 is yes, then this value cannot be zero, validation message: "If covered drainage network is present, then area

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					covered cannot be zero. Enter correct value".
3.7.	Does the ULB have Open Drainage Network?	Y/N	Please note if the ULB has open drainage network.		Enter Yes or No only.
3.8.	*Length of Open Drainage Network*	Km	Please note length of open drainage network.		If cell 3.7 is "No" then cells 3.8 and 3.9 will be auto filled as "NA". If cell 3.7 is yes, then this value cannot be zero, validation message: "If open drainage network is present, then length cannot be zero. Enter correct value". If value is lower than previous year, then verify and add reason in remark. Length of open and close drains (cell 3.5 + cell 3.8) cannot be more than two times of road network (Sanitation sheet cell 10.1), validation message: "Length of covered and open drainage network cannot be more than two times of road network".
3.9.	*Area Covered by Open Drainage Network*	Sq. km	Please note area covered by open drainage network.		If cell 3.7 is yes, then this value cannot be zero, validation message: "If open drainage network is present, then area covered cannot be zero. Enter correct value". If value is lower than previous year, then verify and add reason in remark. Total area covered by covered and open drainage network (cell 3.6+ cell 3.9) cannot be more than total area of the city (General info sheet cell 1.17), validation message: "Area covered by covered and open drainage network cannot be more than total city area".
	Augmentation and Efficiency of Network				
3.10.	Does the ULB have a Plan to Develop/Augment its Sewer Network?	Y/N	Please note if the ULB has a plan to develop/augment its sewer network.	Sanitation Department	Enter Yes or No only.

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
3.11.	Does the ULB Contract out Services related to O&M Operations for Sewerage?	Y/N	Please note if the ULB contract out services related to O&M operations for sewerage.		Auto filled as NA if there are no sewerage connections in the city (Sanitation sheet cell 2.2 is zero or "NA")
3.12.	Number of Households with Individual Toilets in the City	Number	Number of households with individual toilets in the city.		Value cannot be more than total households in a city (general info sheet cell 1.5), validation message: "Total Number of HHs with individual toilets in the city cannot be more than Total number of HHs. Enter correct value". Sum of households with individual toilets (cell 3.12) and households dependent on functional community toilets (sanitation sheet cell 1.3) cannot be more than Total households (General info sheet cell 1.5). Validation message: "Sum of HHs with individual toilets and HHs depending on Community toilets cannot be more than Total HHs. Enter correct value". If toilet coverage is 100%, then auto-filled of total households in city (General info sheet cell 1.5) – Households depend on community toilets (Sanitation sheet cell 1.3).
3.13.	Number of Households with toilets connected to sewer network in the city	Number	Number of households with individual toilets connected to sewer network in the city.		If no sewerage system, then cells 3.13 to 3.15 will be auto filled as "NA". This cannot be more than Total Number of households with individual toilets (cell 3.12), validation message: "Number of HHs with toilets connected to sewer network in the city cannot be more than Total Number of HHs with individual toilets. Enter correct value". Sum of toilets connected to sewer network, septic tanks, single pit, and twin pit, other safe and unsafe system (summation of cells 3.13, 3.32, 3.36, 3.37 and 3.38) should be equal to Total

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					number of individual toilets in the city (cell 3.12), validation message: "Sum of toilets connected to sewer network, septic tanks, single pit, twin pit, other safe and unsafe system should equal to Total number of individual toilets in the city. Enter correct values".
3.14.	Number of Residential Sewer Connections in the City	Number	Number of residential sewer connections in the city.		This value cannot be zero or "NA" if city has sewerage connection (sanitation sheet cell 2.2 value is >0)
3.15.	Number of Non-Residential Sewer Connections in the City	Number	Number of non-residential sewer connections in the city.		Auto filled (Property with sewerage connections; Sanitation sheet cell 2.2-Number of Residential Sewer Connections in the city; Equity Related Information sheet cell 3.14)
3.16.	Total no. of community toilet seats in the city (including mobile toilet / public toilet which are used by community)	Number	Number of community toilet seats in the city includes functional as well as non-functional		This cannot be zero or NA if Households dependent on functional community toilets has value (Sanitation sheet cell 1.3), validation message: "Enter valid number in "Total no. of community toilet seats in city".
3.17.	Total no. of functional community toilet seats in the city	Number	No of functional community toilet seats in the city.		This cannot be zero or NA if Households dependent on functional community toilets has value (Sanitation sheet cell 1.3), validation message: "Enter valid number in "Total no. of functional community toilet seats in city". User cannot be able to enter value more than total no. of community toilet seats in the city (cell 3.16), validation message: "Total no. of functional community toilet seats cannot be more than Total no. of community toilet seats in city. Enter correct value".
3.18.	Number of functional community toilet seats	Number	No of functional community toilet seats which are connected to sewer network in the city		If no sewerage system, then cells 3.18 to 3.21 will be auto filled as "NA".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	connected to sewer network				User cannot be able to enter value more than total no. of functional community toilet seats in the city (cell 3.17), validation message: "Total no. of functional community toilet seats connected to sewer network cannot be more than Total no. of functional community toilet seats in city. Enter correct value".
3.19.	Number of Sewer Overflows Reported in the Current Year	Number	Number of sewer overflows reported in the current year.		
3.20.	Does the ULB have a STP?	Y/N	Please note if the ULB has a STP.		If Volume of sewage treated at the Primary Treatment Plant (sanitation sheet cell 3.18) is zero or "NA" then this cell is auto-filled as "NA".
3.21.	*If Yes, Specify Type of Treatment*	(1/2/3/4)	Please note the type of treatment.		If 3.20 is "Yes" then select one option from the list.
	1: Up flow Anaerobic Sludge Blanket (UASB), 2: Activated sludge, 3: Oxidation pond 4: Others				
	Reuse of wastewater				
3.22.	Does the ULB Charge for Untreated/Treated Wastewater that is Reused?	Y/N	Please note if the ULB charges for untreated/treated wastewater that is reused.	Wastewater Department	Yes or No
3.23.	*If Yes, Please Specify the Rate for Untreated Wastewater*	Rs/MLD	Please specify the rate for untreated wastewater.		If cell 3.22 is "Yes" then either cell 3.23 or 3.24 should have value.
3.24.	*If Yes, Please Specify the Rate for Treated Wastewater*	Rs/MLD	Please specify the rate for treated wastewater.		If cell 3.22 is "Yes" then either cell 3.23 or 3.24 should have value. If volume of sewage treated at the Primary Treatment Plant (sanitation sheet cell 3.18) is zero or "NA" then this cell will be auto-filled as "NA".
3.25.	Is the Untreated Wastewater Being Reused?	Y/N	Please note if the untreated wastewater is being reused.		Yes or No

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
3.26.	*If Yes, Estimated Volume of Untreated Wastewater Reused*	MLD	Estimated volume of untreated wastewater reused.		If 3.25 is Yes, then this should have value
3.27.	*If Yes, Specify the Purpose*	(1/2/3)	Specify the purpose.		If 3.25 is Yes, then select one option from the list
	1: Agriculture, 2: Sewage farms, 3: Others, specify				
	Means of disposal of wastewater				
3.28.	Sullage (Grey water from bathroom, kitchen, sink, etc. and outlet of septic tank)	(1/2/3)	Specify means of disposal of sullage.	Wastewater Department	This cannot be NA if city has septic tanks, single pits or twin pits (summation of cells 3.32, 3.36 and 3.37 >0), validation message: "Enter means of disposal of Sullage".
3.29.	Untreated sewage	(1/2/3)	Specify means of disposal of untreated sewage.		If Properties with sewer connections (Sanitation sheet cell 2.2) is zero or NA, then Auto filled as "NA" or else select one option
3.30.	Treated sewage	(1/2/3)	Specify means of disposal of treated sewage.		If Volume of sewage actually treated at Secondary Treatment Plant (Sanitation sheet cell 3.19) is zero or NA, then Auto filled as "NA" or else select one option
	1: On land, 2: In water bodies, 3: Others, specify				
	In areas of ULB/ ULBs with no sewer/drainage network				
3.31.	Estimated Properties Connected to Septic Tanks	Number	Estimated properties connected to septic tanks.	Wastewater Department	This question is deleted in the online data entry module from year 2017-18 onwards.
3.32.	Households with toilets connected to septic tanks	Number	Estimated households with toilets connected to septic tank only.		This cannot be more than HHs with Individual toilets in the city (cell 3.12), validation message: "Households with toilets connected to septic tanks cannot be more than HHs with Individual toilets in the city. Enter correct value". Sum of toilets connected to sewer network, septic tanks, single pit, and twin pit, other safe and unsafe system (summation of cells 3.13, 3.32, 3.36, 3.37 and 3.38) should be equal to Total number of individual toilets in the city

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					(cell 3.12), validation message: "Sum of toilets connected to sewer network, septic tanks, single pit, twin pit, other safe and unsafe system should equal to Total number of individual toilets in the city. Enter correct values".
3.33.	Households connected to septic tank as per design standards	Number	Estimated households connected to septic tank as per design standards, for example, for a family of 5 members recommended size of septic tank is 1.5 x 0.75 x 1.05 meter for 3-year cleaning cycle.		If households with toilets are connected to septic tank (cell 3.32>0) then this should have value Value cannot be more than households with toilets connected to septic tanks (cell 3.32), validation message: "Households connected to septic tank as per design standards cannot be more than HHs connected to septic tanks. Enter correct value".
3.34.	Households with septic tank connected to drains / settled sewer	Number	Estimated households with toilet connected to septic tank followed by drains / settled sewer.		If septic tank is there (Q3.32>0) and septic tank outlet is connected to drain, then this should have value. Should not be more than cell 3.32, validation message: "Households with septic tank connected to drains / settled sewer cannot be more than HHs with toilets connected to septic tanks. Enter correct value".
3.35.	Households with toilets with septic tank connected to soak pits	Number	Estimated households with toilet connected to septic tank followed by soak pits. Auto filled based on Households with toilets connected to septic tanks – Households with septic tanks connected to drains / settled sewer (cell 3.32- 3.34)		
3.36.	Households with toilets connected to single pit	Number	Estimated households with toilet connected to single pit.	Sanitation department	This cannot be more than HHs with Individual toilets in the city. Validation message: "Households with toilets connected to single pit cannot be more than HHs with Individual toilets in the city. Enter correct value".
3.37.	Households with toilets connected to twin pits	Number	Estimated households with toilet connected to twin pit.		This cannot be more than HHs with Individual toilets in the city. Validation message: "Households with toilets

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					connected to twin pits cannot be more than HHs with Individual toilets in the city. Enter correct value".
3.38.	Households with toilets connected to other **safe** system (Zero discharge - ecosan toilets, Improved / Package septic tank, Advance onsite treatment - Johkasou, etc)	Number	Estimated households with toilets connected to other **safe** system (Zero discharge - ecosan toilets, Improved / Package septic tank, Advance onsite treatment - Johkasou, etc)		
3.39.	Households with toilets connected to other **unsafe** system (Night soil disposal, etc)	Number	Estimated households with toilets connected to other **unsafe** system (Night soil disposal, etc)		
3.40.	Estimated number of septic tanks in the ULB	Number	Estimated number of septic tanks in the ULB.		This question is deleted in the online data entry module from year 2017-18 onwards.
3.41.	Estimated number of septic tanks cleaned annually	Number	Estimated number of septic tanks cleaned annually by ULB and private septic tank emptier.		If septic tanks/single pits are there (cell 3.32 + 3.36>0) then this should have value. Need to verify if this value is more than total of septic tanks and single pits (cell 3.32+3.36)
3.42.	**Total septage generated**	**Cu.m / Year**	**This is automatically generated based on the normative standard of 230 litre per capita per year provided by Advisory note on Septage management in Urban India, 2013.**		
3.43.	Average capacity of septage sucking machine/ vacuum emptier	Cu. M	Average capacity of septage sucking machine/ vacuum emptier. If there are more than one sucking machine/ vacuum emptier, then take average of their capacities	Sanitation department	This cannot be zero or NA if city / private operator practices septage management and have septage cleaning machine (Sanitation sheet cell 11.9 is Yes), validation message: "Enter valid number in "Average capacity of septage sucking machine/ vacuum emptier". User cannot enter value more than 100 If value is entered in Total septage generated (cell 3.42) and user enters zero or "NA" then popup message will appear to draw user's attention "Does city or private service provider is not providing

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					faecal sludge and septage emptying services? Check average capacity of septage sucking machine"
3.44.	Number of trips in a year by all sucking machine/ vacuum emptier	Number	Number of trips in a year by all sucking machine/ vacuum emptier by adding the trips made by each sucking machine/ vacuum emptier		This cannot be zero or NA if city / private operator practices septage management and have septage cleaning machine (Sanitation sheet cell 11.9 is Yes), validation message: "Enter valid number in "Number of trips in a year by all sucking machine/ vacuum emptier". If value is entered in Total septage generated (cell 3.42) and user enters zero or "NA" then popup message will appear to draw user's attention - "Please confirm, does city or private service provider is not providing faecal sludge and septage emptying services? Check number of trips in a year by all sucking machine / vacuum emptier"
3.45.	**Total volume of septage collected by septage sucking machines**	**Cu.m / Year**	**This is automatically generated based on the multiplication of average capacity of septage sucking machine and number of trips in a year by all sucking machines (cell 3.43 and 3.44).**		
3.46.	**Total quantity of septic tank effluent collected through settled sewer / drain at the inlet of treatment plant / disposal point**	**MLD**	**Total volume of septic tank effluent including grey water collected through settled sewer / drain at the inlet of treatment plant or disposal point. This value is auto- calculated using household connected to septic tank and lined drains / settle sewer (cell 3.34) and wastewater generated per household.**		
3.47.	*Charge Levied by Agency for Emptying Septic Tanks* ***Inside*** *City Limits*	Rs/Trip	Specify charge levied by agency for emptying septic tanks inside city limits.		This cannot be zero or NA if city / private operator practices septage management and have septage cleaning machine (Sanitation sheet cell 11.9 is Yes), validation message: "Enter valid number in "Charge levied by agency for emptying septic tanks inside city limits"
3.48.	*Charge Levied by Agency for Emptying Tanks* ***Outside*** *City Limits*	Rs/Trip	Specify charge levied by agency for emptying tanks outside city limits.		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
3.49.	Does the ULB have Facilities to Treat Septage?	Y/N	Please note if the ULB has facilities to treat septage.		Yes or No. If value is entered in Total septage generated (cell 3.42) then user cannot enter "NA" and validation message will appear: "Select Yes or No in Does the ULB have facility to treat septage". If Total septage generated (cell 3.42) has zero value, then this will be auto filled as "No"
3.50.	*If Yes, then specify type of treatment facility*	(1/2/3/4/5/6)			If cell 3.49 is yes, then select one option. If no treatment, then cells 3.50 to 3.55 will be auto filled as "NA". If 'Does the ULB have Facilities to Treat Septage?' (cell 3.49) is yes then user cannot enter "NA" and validation message will appear - "Select appropriate septage treatment type". If 'Does the ULB have Facilities to Treat Septage?' (cell 3.49) is yes and zero or "NA" value is entered in 'Installed Capacity of Secondary Treatment Plant' (sanitation sheet cell 4.2) then user cannot enter option 1 and validation message will appear: "Installed capacity of secondary treatment plant mentioned in sewerage sheet is zero therefore select appropriate type of septage treatment facility"
	1: Co-treatment at own STP, 2: Treatment at own FSTP, 3: Co-treatment at nearby STP, 4: Treatment at nearby FSTP, 5: Co-treatment at solid waste treatment facility, 6: Others then specify				
	If type of treatment facility is option 3: Co-treatment at nearby STP or option 4: Treatment at nearby FSTP, then Enter city name where septage is being treated	Text			

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	If cell 3.49 is Yes, then specify treatment technology of STP or FSTP	Text			
3.51.	*If cell 3.49 is yes, then specify installed capacity of septage treatment facility*	Cu. m/ Year	Total installed capacity of septage treatment facility	Log records at septage treatment facility, Sanitation Department	If cell 3.50 is "Co-treatment at own STP" then this cell will be auto filled as "NA". If 'Does the ULB have Facilities to Treat Septage?' (cell 3.49) is yes then user cannot enter "NA" or zero and validation message will appear: "Enter valid number in installed capacity of septage treatment facility"
3.52.	*If cell 3.49 is yes, then specify quantity of septage received at treatment facility*	Cu. m/ Year	Quantity of septage received at the inlet of septage treatment facility		Value should not be more than volume of septage collected (cell 3.45), validation message: "Total quantity of septage received at treatment facility cannot be more than total volume of septage collected. Enter correct value". If 'Does the ULB have Facilities to Treat Septage?' (cell 3.49) is yes then user cannot enter "NA" or zero and validation message will appear "Enter valid number in quantity of septage received at treatment facility"
3.53.	*If cell 3.49 is yes, then specify quantum of treated septage reused after treatment*	Kgs/Year	Quantum of treated septage that is reused for manure/fertiliser, etc.		If city is not reusing treated septage after giving treatment, then it should be zero. This should be less than Quantity of septage received at treatment facility (cell 3.52), validation message: "Total quantum of treated septage reused after treatment cannot be more than Total quantity of septage received at treatment facility. Enter correct value". If 'Does the ULB have Facilities to Treat Septage?' (cell 3.49) is yes then user cannot enter "NA" and validation message will appear: "Enter valid number in quantum of treated septage reused after treatment"

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
3.54.	Number of Treated Septage Samples Tested in a Year	Number	Records on number of effluent samples taken at septage outfalls on a daily/monthly basis, which must be averaged out on a yearly basis.	Test reports maintained at ULB labs/ sent to regional labs. DoM Patrak	If cell 3.49 is yes and samples have been taken for testing, then this should have value. If 'Does the ULB have Facilities to Treat Septage?' (cell 3.49) is yes then user cannot enter "NA" or zero and validation message will appear: "Enter valid number in Number of Treated Septage Samples Tested in a year"
3.55.	Number of Treated Septage Samples Passed in a Year	Number	Records on number of effluent samples that have passed tests conducted at sewage outfalls on a daily/monthly basis, which must be averaged out on a yearly basis.		If Q.3.54 has value then this should have value, User cannot enter value more than number of treated septage samples tested in a year (cell 3.54), validation message: "The value for number of treated septage samples passed in a year is more than the number of samples tested. Enter correct values". If 'Does the ULB have Facilities to Treat Septage?' (cell 3.49) is yes then user cannot enter "NA" or zero and validation message will appear: "Enter valid number in Number of Treated Septage Samples Passed in a year"
3.56.	Location of Disposal of untreated septage	(1/2)	Please note the location of disposing septic tank waste.	Sanitation/ Wastewater Department	If 'Does the ULB have Facilities to Treat Septage?' (cell 3.49) is yes and 'Volume of septage collected by septage sucking machines' (cell 3.45) is equal to 'Quantity of septage received at treatment facility' (cell 3.52) then this will be auto filled as "NA"
	1: Open dumps, 2: Water bodies				
3.57.	*Does ULB have treatment plant for grey water / effluent collected from settled sewers/drains?*	*Y/N*	Please note if the ULB have treatment plant for grey water / effluent collected from settled sewers/ drains.	Sanitation/ Wastewater Department	Yes or No If value is entered in 'Total quantity of septic tank effluent collected through settled sewer / drain at the inlet of treatment plant / disposal point' (cell

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					3.46) then user cannot enter "NA" and validation message will appear: "Select Yes or No in Does ULB have treatment plant for grey water / effluent collected from settled sewers/drains?" If zero value is entered in cell 3.46 then this will be auto filled as "No"
3.58.	*If yes, specify type of treatment?*	*(1/2/3/4)*	Note the type of treatment plant.		If 'cell 3.57 is yes, then select one option. If no treatment, then cells 3.58 to 3.63 will be auto filled as "NA". If 'Does ULB have treatment plant for grey water / effluent collected from settled sewers/drains?' (cell 3.57) is yes then user cannot enter "NA" and validation message will appear: "Select appropriate grey water / effluent collected from settled sewers / drains treatment type"
	1: At existing STP, 2: Pond 3: Lagoons 4: Others				
3.59.	*If yes, specify installed capacity of treatment plant?*	*MLD*	Total installed capacity of treatment plant	Sanitation/ Wastewater Department	If treatment of grey water is in existing STP (cell 3.58 is "at existing STP") then auto filled as "NA", if any other facility then enters capacity. If 'Does ULB have treatment plant for grey water / effluent collected from settled sewers/drains?' (cell 3.57) is yes then user cannot enter "NA" or zero and validation message will appear: "Enter valid number in grey water / effluent collected from settled sewers / drains treatment plant capacity"
3.60.	*If yes, specify quantity of effluent received at treatment plant*	*MLD*	Total quantity of effluent including grey water received at treatment plant		If cell 3.57 is yes, then this should be greater than zero. This value cannot be more than Total quantity of septic tank effluent collected through settled sewer / drain (cell 3.46),

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					validation message: "Total quantity of effluent received at treatment plant cannot be more than Quantity of septic tank effluent collected through settled sewer / drain. Enter correct value". If 'Does ULB have treatment plant for grey water / effluent collected from settled sewers/drains?' (cell 3.57) is yes then user cannot enter "NA" or zero and validation message will appear: "Enter valid number in quantity of effluent received at treatment plant" If sum of 'Volume of sewage actually treated at the Primary Treatment Plant' (sanitation sheet cell 3.18) and 'Quantity of effluent including grey water received at treatment plant' (ERI sheet cell 3.60) () is more than 'Total waste water generated' (Sanitation sheet summation of cells 3.10 to 3.17) () then validation message will appear: "Sum of Total quantity of effluent received at treatment plant and Volume of Sewage collected and treated at sewage treatment plants cannot be more than total wastewater generated"
3.61.	*If yes, specify quantity of treated effluent reused*	*MLD*	Total quantity of effluent reused after treatment for gardening, flushing, agriculture, etc.		If cell 3.60 has value and treated effluent has been reused, then this should have value. This should be less than quantity of effluent received at treatment plant (cell 3.60), validation message: "Total quantity of treated effluent reused cannot be more than Quantity of effluent received at treatment plant. Enter correct value. If city is not reusing treated effluent after giving treatment, then it should be zero".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					If 'Does ULB have treatment plant for grey water / effluent collected from settled sewers/drains?' (cell 3.57) is yes then user cannot enter "NA" and validation message will appear: "Enter valid number in quantity of treated effluent reused"
3.62.	*Number of treated effluent samples tested in a year*	*Number*	Records on number of effluent samples taken at outfalls on a daily/monthly basis, which must be averaged out on a yearly basis.		If city has a treatment plant for grey water / effluent collected from settled sewers/drains (cell 3.57 is yes) and samples have been taken for testing, then this should have value. If 'Does ULB have treatment plant for grey water / effluent collected from settled sewers/drains?' (cell 3.57) is yes then user cannot enter "NA" or zero and validation message will appear: "Enter valid number in treated effluent samples tested in a year"
3.63.	*Number of treated effluent samples passed in a year*	*Number*	Records on number of effluent samples that have passed test conducted at outfalls on a daily/monthly basis, which must be averaged out on a yearly basis.		If samples are tested (cell 3.62 has value) then this should have value, User cannot enter value more than samples tested (cell 3.62), validation message: "The value for number of treated effluent samples passed in a year is more than the number of samples tested. Enter correct values". If 'Does ULB have treatment plant for grey water / effluent collected from settled sewers/drains?' (cell 3.57) is yes then user cannot enter "NA" or zero and validation message will appear: "Enter valid number in treated effluent samples passed in a year"

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Solid Waste Management				
4.1.	Total Number of Wards in the City	Number	Total number of wards used for SWM in the city.	Sanitation/ SWM Department	If city / private operator is providing any solid waste management service, the this should be zero or "NA"
	Number of Wards Covered by Primary Collection Agencies for SWM				
4.2.	ULB	Number	Number of wards covered by ULB in door to door collection.	Sanitation/ SWM Department	No of wards covered by various agencies (summation of cell 4.2 to 4.5) should not be more than total wards in the city (cell 4.1), validation message: "Total wards covered by primary collection agencies cannot be more than total wards in the city". If city has 100% door to door coverage, then all wards should be covered (summation of cells 4.2 to 4.5 should equal to cell 4.1 value).
4.3.	Private	Number	Number of wards covered by private agencies in door to door collection.		
4.4.	Resident Welfare Associations	Number	Number of wards covered by resident welfare associations in door to door collection.		
4.5.	NGO/CBOs	Number	Number of wards covered by NGO/CBOs in door to door collection.		
4.6.	Number of Sweepers Deployed for road sweeping	Number	Number of sweepers deployed for road sweeping.	Sanitation/ SWM Department	This should be number not "NA" or zero
4.7.	Total Length of Road Swept	Km	Total length of road swept.		This should be number not "NA" or zero. This should not be more total length of road (sanitation sheet cell 10.1), validation message: "Total length of road swept cannot be more than Total length of road network. Enter correct value".
4.8.	Number of Secondary Storage Bins	Number	Number of secondary storage bins.		This should be number, not "NA". If secondary bins are not placed in city, then this should be zero.
4.9.	Capacity of Secondary Storage Bins	Tonnes	Capacity of secondary storage bins.		This should be greater than zero if secondary bins are placed (cell 4.8 has value), validation message: "Capacity of secondary storage bins cannot be zero as

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					number of secondary storage bins is not zero. Enter correct value". If no bins, then this should be zero not "NA".
4.10.	Frequency of Secondary Collection of Waste in a week	Days	Frequency of secondary collection of waste.		This should be greater than zero if secondary bins are placed (cell 4.8 has value). If no bins, then this should be zero not "NA". User cannot enter value more than 7 days in a week, validation message: "Frequency of secondary collection of waste in a week cannot be more than 7 days. Enter correct value".
	Does the ULB contract out services related to				
4.11.	Secondary Collection?	Y/N	Please note if the city contracts out services related to secondary collection of solid waste.	Sanitation/ SWM Department	Yes or No
4.12.	Transportation?	Y/N	Please note if the city contracts out services related to transportation of solid waste.		
4.13.	Treatment?	Y/N	Please note if the city contracts out services related to treatment of solid waste.		
4.14.	Disposal?	Y/N	Please note if the city contracts out services related to disposal of solid waste.		
	Financial Details for ULB				
	Capital Receipts of ULB				
5.1.	Grants	Rs. in Lakhs	Please note the total capital grants of the city received from central or state government for capital work only.	Records on Double entry accounting (Tally), Budget document	If no capital grant received then this should be zero, should not be "NA".
5.2.	Borrowings	Rs. in Lakhs	Please note the total capital Borrowings of the city.		If no borrowings received then this should be zero, should not be "NA".
5.3.	Others	Rs. in Lakhs	Please note the other (excluding grants and borrowings) capital amount of the city.		If no other amount received for capital works then this should be zero, should not be "NA".

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
	Total	**Rs. in Lakhs**	**This is automatically generated**		
	Capital expenditure of ULB				
5.4.	Water supply	Rs. in Lakhs	Please note the capital expenditure for water supply services of the city. Capital cost related construction of new network, storage tank, water treatment plant, etc.	Records on Double entry accounting (Tally), Budget document	If there is no capital work of water supply carried out this year, then this should be zero not "NA".
5.5.	Wastewater	Rs. in Lakhs	Please note the capital expenditure for wastewater services of the city. Capital cost related to new toilets construction under Swachch Bharat Mission, construction of new sewerage network, treatment facilities, etc.		If there is no capital work of wastewater / sanitation carried out this year, then this should be zero not "NA".
5.6.	Municipal Solid Waste Management (MSWM)	Rs. in Lakhs	Please note the capital expenditure for MSWM services of the city. Capital cost related to new vehicles, storage bins, machinery for collection / transportation of solid waste, construction of scientific landfill site, or processing facility, etc.		If there is no capital work of solid waste management carried out this year, then this should be zero not "NA".
5.7.	Others	Rs. in Lakhs	Please note the capital expenditure for remaining services of the city. Capital cost related to road, building construction, etc.		If there is no capital work of others (except water, wastewater and solid waste management) carried out this year then this should be zero not "NA".
	Total	**Rs. in Lakhs**	**This is automatically generated**		
	Revenue receipts of ULB				
5.8.	Own Tax Revenue Income	Rs. in Lakhs	Please note own tax revenue receipt of the city. This should be summation of collected arrears and demand of all the taxes city has levied i.e., property tax, water tax, sanitation /toilet tax, solid waste tax, light tax etc.	Records on Double entry accounting (Tally), Budget document	If city does not levy any tax, then should be zero not "NA". This cannot be less than collection of current year demand and arrears from property tax, water tax, sanitation tax and solid waste tax (summation of water sheet cells 9.2 and 9.3, sanitation sheet

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
					cells 9.2 and 9.3, SWM sheet cells 8.2 and 8.3, ERI sheet cells 5.19 and 5.20), validation message: "Own tax revenue income cannot be less than collection of water supply, wastewater, SWM related charges and property tax".
5.9.	Non-Tax Revenue Income		Please note non-tax revenue receipt of the city, e.g. connection costs, licensing fees, rent income, etc.		Most cities have non-tax revenue income. And if there is no non-tax revenue income then this should be zero not "NA".
5.10.	Revenue Grants & Contribution		Please note revenue grants and contribution of the city. This should be summation of all the grants received from state / central government i.e. 14th FC grants, state revenue grant, etc.		This should not be zero or "NA", validation message: "Revenue Grants & Contribution cannot be zero".
	Total	**Rs. in Lakhs**	**This is automatically generated**		
	Revenue expenditure of ULB				
5.11.	Establishment Expenditure	Rs. in Lakhs	Total establishment expenditure of all departments	Records on Double entry accounting (Tally), Budget document	This should not be zero or "NA". This cannot be less than summation of total operating expenditure of water supply, sanitation and solid waste management, validation message: "Total revenue expenditure of ULBs cannot be less than expenditure of water supply, wastewater and SWM services".
5.12.	Operations and maintenance	Rs. in Lakhs	Total operations and maintenance expenditure of all departments		
5.13.	Outsourcing / Contract	Rs. in Lakhs	Total outsourcing / contract expenditure of all departments		
5.14.	Others	Rs. in Lakhs	Other expenditure of ULB		
	Total	**Rs. in Lakhs**	**This is automatically generated**		
5.15.	Total Extraordinary Income of ULB	Rs. in Lakhs	Total Extraordinary Income of ULB	Records on Double entry accounting (Tally), Budget document	This should not be zero or "NA".
5.16.	Total Extraordinary Income of ULB	Rs. in Lakhs	Total Extraordinary Expenditure of ULB		
	Property tax details				
5.17.	Arrears at the beginning of current year	Rs. in Lakhs	Total arrears of the Property tax		If property tax is levied by city, then cells 5.17 to 5.20 should not be 0 or NA.

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
5.18.	Current year billed demand	Rs. in Lakhs	Current year demand of Property tax	Demand and collection statement, Property tax department	
5.19.	Collection against arrears	Rs. in Lakhs	Collection of arrears against the total arrears of property tax demand		This cannot be more than arrears at the beginning of current year (cell 5.17), validation message: "Collection against arrears cannot be more than arrears at the beginning of previous year".
5.20.	Collection against current year demand	Rs. in Lakhs	Collection of current year property tax as against the demand		This cannot be more than current year billed demand (cell 5.18), validation message: "Collection against current demand cannot be more than total revenue demand".
	Outstanding Payments of ULB				
5.21.	Total Payment due to the State Electricity Board for Outstanding Electricity Bills and Penalties	Rs. in Lakhs	Total payment due to the state electricity board for outstanding electricity bills and penalties.	Accounts Department	This should not be "NA". If no outstanding payment, then it should be zero.
5.22.	Total Payments due for Bulk Supply (Irrigation, Narmada etc.) including Charges and Penalties	Rs. in Lakhs	Total payments due for bulk supply (irrigation, Narmada etc,) including charges and penalties.		
5.23.	Repayment of loans	Rs. in Lakhs	Total loan repayment dues till date		
5.24.	Others	Rs. in Lakhs	Other outstanding payments of ULB		
	Total	**Rs. in Lakhs**	**This is automatically generated**		
	Improving Collection efficiency				
	Does the ULB Levy Charge in the Form of Taxes, User Fees, etc. for Providing Services Related to				
5.25.	Water Supply?	Y/N	Please note if the ULB collects charges/taxes related to water supply.	Tax Department or Accounts Department	This question is deleted in the online data entry module from year 2017-18 onwards.
5.26.	Wastewater (Sanitation and Sewerage)?	Y/N	Please note if the ULB collects charges/taxes related to wastewater.		
5.27.	MSWM?	Y/N	Please note if the ULB collects charges/taxes related to MSWM.		

Sr. No	Description of data elements	Unit	Description	Possible sources of data	Data validation check
5.28.	SWD?	Y/N	Please note if the ULB collects charges/taxes related to SWD.		
5.29.	Does the ULB Facilitate Payment of Bills through Banks?	Y/N	Please note if the ULB has options to facilitate bill payments through banks.		Enter Yes or No only
5.30.	Does the ULB have Various Mechanisms to Facilitate Collection of Bills at Ward Level like E-Kiosks, Civic Centres, etc.?	Y/N	Please note if the ULB has mechanisms to facilitate bill collection like e-kiosks, etc.		
5.31.	Does the ULB Outsource its Bill Collections to Private Agencies, etc.?	Y/N	Please note if the ULB has outsourced bill collection.		
5.32.	What is the Penalty for Late Payment?	Rs	Please note the penalty is levied by ULB for late payment of bills.		If there is no penalty levied, then enter zero.

1.6.Reliability

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
1.	**Coverage**		
	What is the basis of estimation of		
	HHs served with individual water supply connections (information entered in water supply sheet cells 1.13 to 1.15)	1.Through household surveys (1-5 yrs.)	If this data has been entered on the basis of recent households survey then this should be Yes and if not then No. If no water supply connection in the city, then only enters NA in 1 to 5.
		2.Through property tax/billing records	If this data has been entered on the basis of property tax or billing records (in most of the city water tax is included in property tax bill so on the basis of billing records number of water connections can be extracted) then this should be Yes and if not then No.
		3. Number of residential connections	If this data has been entered on the basis of water supply connection register maintained by city, then this should be Yes and if not then No.
		4. Past trends/surveys	If this data has been entered on the basis of any past survey or any trends, then this should be Yes and if not then No.
		5. Area covered by distribution network	If this data has been entered on the basis of area covered by water distribution network, then this should be Yes and if not then No.
	Properties served with toilets (individual + community) (information entered in sanitation sheet cells 1.2 and 1.3)	1. Through household surveys (1-5 yrs.)	This should not be NA. If this data has been entered on the basis of recent household survey, then this should be Yes and if not then No.
		2. Through property tax records	This should not be NA. If this data has been entered on the basis of property tax or billing records (if city levied toilet tax or any tax based on toilet availability) then this should be Yes and if not, then No.
		3. Area covered by toilet facilities	This should not be NA. If this data has been entered on the basis of area covered by toilet facilities, then this should be Yes and if not then No.
	Properties served with sewerage connections (information entered in sanitation sheet cells 2.2)	1. through household surveys (1-5 yrs.)	If sanitation sheet cell 2.2 is zero, then options 1 to 6 are auto filled as "NA" and if sanitation sheet cell 2.2 has value then these cells should not be "NA". If this data has been entered on basis of any recent survey then this should be Yes, if not then No.
		2. Through property tax records	If this data has been entered on the basis of property tax or billing records (in most of the city sewerage tax is included in property tax bill so on the basis of billing records number of sewerage connections can be extracted) then this should be Yes and if not then No.
		3. Number of sewer connections	If sanitation sheet cell 2.2 is greater than zero, then this cannot be NA. If this data has been entered on the basis of sewerage connection register maintained by city, then this should be Yes and if not then No.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
		4. Past trends/surveys	If sanitation sheet cell 2.2 is greater than zero, then this cannot be NA. If this data has been entered on the basis of any past survey or any trends, then this should be Yes and if not then No. If sanitation sheet cell 2.2 is zero, then auto filled as NA.
		5. Area covered by sewer network	If this data has been entered on the basis of area covered by sewer network, then this should be Yes and if not then No.
		6. Road length covered by sewerage	If this data has been entered on the basis of road length covered by sewer network, then this should be Yes and if not then No.
	Households served with septic tank connections / twin pit system (information entered in ERI sheet cells 3.32 to 3.39)	1. Through household surveys (1-5 yrs.)	If sanitation sheet cell 2.3 has value, then options 1 to 4 should not be "NA". If this data has been entered on basis of any recent survey then this should be Yes, if not then No.
		2. Through property tax records or BU permission records	If this data has been entered on basis of building use permission records (mostly BU permission records include design of building and indicates type of onsite system for wastewater outlet) then this should be Yes, if not then No.
		3. Past trends/surveys	If this data has been entered on basis of any past survey or trends then this should be Yes, if not then No.
		4. Area covered by septic tank	If this data has been entered on the basis of area covered by septic tank, then this should be Yes or and if not then No.
	HHs and establishments served by door to door collection (information entered in SWM sheet cells 1.1 to 1.5)	1. Through household surveys (1-5 yrs.)	If no door to door collection in the city, then only options 1 to 3 should be "NA" If this data has been entered on the basis of recent households survey, then this should be Yes and if not then No.
		2. Quantity of waste collected	If this data has been entered on the basis of quantity of waste collected, then this should be Yes and if not then No.
		3. No. of wards served	If this data has been entered on the basis of number of wards served (from the records/logbook of number of wards served HHs and establishments served by door to door collection can be estimated) then this should be Yes and if not, then No.
	How are records of HHs served by water supply maintained? (information entered in water supply sheet cells 1.13 to 1.15)	1. Computerized	If records of HHs served by water supply are computerized then Yes, if not then No.
		2. Only Manual	If records of HHs served by water supply are manual then Yes, if not then No.
	How are records of properties served maintained for		
	Toilets	1. Computerized	If records of properties served with toilets are computerized then Yes, if not then No.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
	(information entered in sanitation sheet cells 1.2 and 1.3)	2. Only Manual	If records of properties served with toilets are manual then Yes, if not then No.
	Sewerage (information entered in sanitation sheet cells 2.2)	1. Computerized	If sanitation sheet cell 2.2 is zero, then options 1 and 2 are auto filled as "NA" and if sanitation sheet cell 2.2 has value then these cells should not be "NA". If records of properties served with sewerage connections are computerized then Yes, if not then No.
		2. Only Manual	If records of properties served with sewerage connections are manual then Yes, if not then No.
	Onsite sanitation system (information entered in ERI sheet cells 3.32 to 3.39)	1. Computerized	If sanitation sheet cell 2.3 has value, then options 1 and 2 should not be "NA". If records of properties with onsite sanitation are computerized then Yes, if not then No.
		2. Only Manual	If records of properties with onsite sanitation are manual then Yes, if not then No.
	Door to door collection of MSW (information entered in SWM sheet cells 1.1 to 1.5)	1. Computerized	If records of HHs and establishments served with door to door collection are computerized then Yes, if not then No.
		2. Only Manual	If records of HHs and establishments served with door to door collection are manual then Yes, if not then No.
	How are connection registers maintained for		
	Water supply (information entered in water supply sheet cells 1.1 to 1.12)	1. Computerized	If water supply connection register is maintained and is computerized, then this should be Yes and if not then No. If no water supply connection, then only option 1 and 2 should be "NA".
		2. Only Manual	If connection register for water supply connection is available and records are manual, then this should be Yes and if not then No.
	Sewerage (information entered in ERI sheet cells 3.14 and 3.15)	1. Computerized	If sanitation sheet cell 2.2 is zero, then options 1 and 2 are auto filled as "NA" and if sanitation sheet cell 2.2 has value then these cells should not be "NA". If sewer connection register is maintained and is computerized then this should be Yes, and if not then No.
		2. Only Manual	If connection register for sewer connection is manual then this should be Yes, and if not then No.
	Storm Water Drains		
	What is the basis of estimation of length of pucca and covered drains? (information entered in sanitation sheet cells 1.2 and ERI sheet cells 3.4 to 3.9)	1. Ground level surveys (1-5 yrs.)	If this data has been entered on the basis of recent ground level survey then this should be Yes, if not then No.
		2. Based on road maps (<5 yrs. old)	If this data has been entered on the basis of recent road maps (updated in last five years) then this should be Yes, if not then No.
	How are flood prone points identified in the city?	1. Flood monitoring stations	If flood prone points are identified from flood monitoring stations then this should be Yes, if not then No.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
	(information entered in sanitation sheet cells 10.3 and 10.4)	2. Complaints/reports from citizens	If flood prone points are identified from flood monitoring stations then this should be Yes, if not then No.
2.	**Coverage in slums**		
	What is the basis of estimation of population/HHs in slums? (information entered in ERI sheet cell 1.2 and general info sheet cell 1.11)	1. Recent Survey (1-3yrs)	If General information sheet cell 1.11 is zero, then section 2 will be auto filled with NA. If slum households and population is estimated on the basis of recent survey then this should be Yes, if not then No
		2. Past Survey	If slum households and population is estimated on the basis of any past survey then this should be Yes, if not then No
	What is the basis of estimation of UWSS services provided in slums? (information entered in ERI sheet cells 1.20 to 1.33)	1. Recent Survey (1-3yrs)	If basis of estimation of UWSS services provided in slums is recent survey then this should be Yes, if not then No
		2. Past Survey	If basis of estimation of UWSS services provided in slums is past survey then this should be Yes, if not then No
	How are records of information on slums maintained for?		
	Water supply (information entered in ERI sheet cells 1.20 to 1.25)	1. Computerized	If slum water supply information is recorded and record is computerized then this should be Yes, if not then No
		2. Only Manual	If slum water supply information is recorded and record is manual then this should be Yes, if not then No
	Sewerage (information entered in ERI sheet cells 1.31)	1. Computerized	If sanitation sheet cell 2.2 is zero, then auto fill with NA. If slum sewerage information is recorded and record is computerized then this should be Yes, if not then No
		2. Only Manual	If sanitation sheet cell 2.2 is zero, then auto fill with NA. If slum sewerage information is recorded and record is manual then this should be Yes, if not then No
	Onsite sanitation system	1. Computerized	These questions are deleted in the online module from the year 2017-18.
		2. Only Manual	
	Individual toilets (information entered in ERI sheet cells 1.26)	1. Computerized	If slum individual toilets information is recorded and record is computerized then this should be Yes, if not then No
		2. Only Manual	If slum individual toilets information is recorded and record is manual then this should be Yes, if not then No
	Door to door collection of MSW (information entered in ERI sheet cell 1.33)	1. Computerized	If slum door to door collection information is recorded and record is computerized then this should be Yes, if not then No
		2. Only Manual	If slum door to door collection information is recorded and record is manual then this should be Yes, if not then No

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
3.	**Water Production, treatment and consumption**		
	Basis of measurement of water produced at WTP/tube wells (information entered in water supply sheet cells 2.1 to 2.5)	1. Bulk flow meters	If the measurement / estimation of water produced at water treatment plant/tube wells is based on bulk flow meter reading then this should be Yes, if not then No.
		2. Pump/level details	If the measurement / estimation of water produced at water treatment plant/tube wells is based on pump/level details, then this should be Yes or if not then No.
	Basis of measurement of water supplied from bulk distribution points (information entered in ERI sheet cell 2.14)	1. Bulk flow meters	If the measurement / estimation of water supplied from bulk distribution points (ESR or sump) is based on bulk flow meters reading then this should be Yes, if not then No.
		2. Pump/level details	If the measurement / estimation of water supplied from bulk distribution points (water tank or sump) is based on pump/level details then this should be Yes, if not then No.
		3. Periodic sample surveys	If the measurement / estimation of water supplied from bulk distribution points (water tank or sump) is based on sample surveys then this should be Yes, if not then No.
	How are records maintained at WTP/tube wells? (information entered in water supply sheet cells 2.1 to 2.5)	1. Computerized	If the records maintained at WTP/Tube wells are computerized then this should be Yes, if not then No
		2. Only Manual	If the records maintained at WTP/Tube wells are manual then this should be Yes, if not then No
	How are records maintained at bulk distribution points like ESRs, etc? (information entered in ERI sheet cell 2.14)	1. Computerized	If the records maintained at bulk distribution points like ESRs, are computerized then this should be Yes, if not then No
		2. Only Manual	If the records maintained at bulk distribution points like ESRs, are manual then this should be Yes, if not then No
4	**Quality of Water**		
	Are proper records of samples conducted and passed/failed at source, WTP/bore wells, bulk distribution points and consumer end maintained?		If records of samples conducted and passed/failed at source, WTP/bore wells, bulk distribution points and consumer end maintained then this should be Yes, If not then No
	Are tests for quality conducted through (information entered in water sheet cells 7.1 to 7.15)	1. Own laboratory regularly	If water quality testing has been done by ULB at their own laboratory and records are maintained then this should be Yes, If not then No
		2. Accredited centres regularly	If water quality tests have been done by Accredited centres regularly and records are maintained then this should be Yes, If not then No
		3. Third party agencies intermittently	If water quality tests have been done by Third party agencies intermittently and records are maintained then this should be Yes, If not then No
	How are audits to monitor water quality procedures carried out?	1. by independent agencies periodically	If audit to monitor water quality procedure is carried out by any independent agency periodically then this should be Yes, if not then No.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
	(information entered in water sheet cells 7.1 to 7.15)	2. ULB itself occasionally	If audit to monitor water quality procedure is carried out by city itself occasionally then this should be Yes, if not then No.
	Record Keeping (information entered in water sheet cells 7.1 to 7.15)	1. Computerized	If records of quality test conducted are computerized then this should be Yes, if not then No
		2. Only Manual	If records of quality test conducted are computerized then this should be Yes, if not then No
5	**Continuity of water supplied**		
	How is the duration of water supplied for the city estimated? (information entered in water sheet cells 5.1 and 5.2)	1. Valve operating points across zones	If duration of water supplied is estimated on the basis of valve operating points then this should be Yes, if not then No
		2. Periodic surveys	If duration of water supplied is estimated on the basis of periodic surveys then this should be Yes, if not then No
		3. Feedback from city field engineers	If duration of water supplied is estimated on the basis of feedback from field workers/ engineers then this should be Yes, if not then No
	Is adequacy of pressure and hours of supply at consumer end assessed?		If pressure and supply hours are assessed at consumer end then only this should be Yes, if not then No
	Record keeping (information entered in water sheet cells 5.1 and 5.2)	1. Computerized	If records of water supply duration and pressure are computerized then this should be yes, if not then No
		2. Only Manual	If records of water supply duration and pressure are manual then this should be yes, if not then No
6	**Metering of Water Connections**		
	Are meters installed at consumer level?		Yes or No. If there are no functional metered connections, then section 6 will be auto filled with NA
	Extent of metering of connections (metering related information entered in water supply sheet cells 1.1 to 1.12 and 4.1 to 4.6)	1. At all consumer points	If all the consumer level water connections are metered then this should be Yes, if not then No
		2. Only bulk & commercial consumers	If only bulk and commercial connections are metered then this should be Yes, if not then No
	How are functional meters assessed? (information entered in water supply sheet cells 1.1, 1.4, 1.7, 1.10, 4.1 and 4.4)	1. Regular reading and billing of meters	If functional meters are assessed through regular reading and billing of meters then this should be Yes, if not then No
		2. Spot checks	If functional meters are assessed through on spot checking of meters then this should be Yes, if not then No
	How is household consumption estimated?	1. Meters installed at all consumer points	If all the consumer level water connections are metered and households consumptions are based on meter readings then this should be Yes, if not then No.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
	(information entered in water supply sheet cells 2.6 to 2.13)	2. Periodic Survey	If all the consumer level water connections are not metered or some are dysfunctional and city estimates household consumption on the basis of periodic survey then this should be Yes, if not then No.
		3. Spot Survey	If all the consumer level water connections are not metered or some are dysfunctional and city estimates household consumption on the basis of spot checking/survey then this should be Yes, if not then No.
		4. Ferrule size and hours of supply	Household consumption estimated based on the basis of ferrule size (water connection size in inch.) and supply hours then this should be Yes, if not then No.
	Record Keeping (metering related information entered in water sheet cells 1.1 to 1.12 and 4.1 to 4.6 and water consumption related information entered in water supply sheet cells 2.6 to 2.13)	1. Computerized	If records for metered connections and households consumptions are computerized then Yes, if not then No.
		2. Only Manual	If records for metered connections and households consumptions are manual then Yes, if not then No.
7.	**Wastewater collection and treatment**		
	How is quantity of wastewater collected by network estimated? (information entered in sanitation sheet cell 3.18)	1.Bulk flow meters at inlet of treatment plant	If sanitation sheet cell 2.2 is zero, then options 1 to 3 will be auto filled with NA and should not be "NA" if sanitation sheet cell 2.2 has value. If bulk flow meters are installed at inlet of treatment facility and city estimates quantity of wastewater collected from flow meter readings then this should be Yes, and if not then No.
		2. V-Notch at outlet of channel	If city estimates quantity of wastewater collected from V-Notch readings then this should be Yes, and if not then No.
		3. Installed Plant Capacity	If city estimates quantity of wastewater collected from installed capacity of treatment plant then this should be Yes, and if not then No.
	How quantity of wastewater is actually treated estimated? (information entered in sanitation sheet cell 3.19)	1.Bulk flow meters at outlet of treatment plant	If sanitation sheet cell 3.18 is zero, then options 1 to 3 will be auto filled with NA and should not be "NA" if sanitation sheet cell 3.18 has value. If bulk flow meters are installed at outlet of treatment facility and city estimates quantity of wastewater treated from flow meter readings then this should be Yes, and if not then No.
		2. V-Notch at outlet of channel	If city estimates quantity of wastewater treated from V-Notch readings then this should be Yes, and if not then No.
		3. Installed Plant Capacity	If city estimates quantity of wastewater treated from installed capacity of treatment plant then this should be Yes, and if not then No.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
	How treatment plant system capacity is assessed? (information entered in sanitation sheet cells 4.1 and 4.2)	1. Through rigorous testing and commissioning procedures	If sanitation sheet cell 3.18 is zero, then options 1 to 3 will be auto filled with NA and should not be "NA" if sanitation sheet cell 3.18 has value. If city assesses treatment plant capacity through rigorous testing and commissioning procedures then this should be Yes, and if not then No.
		2. On the basis of reliable operational data	If city assesses treatment plant capacity on the basis of reliable data then this should be Yes, and if not then No.
		3. No estimate of treatment capacity that is actually functional and in operation	If city does not have any estimation for treatment plant capacity then this should be Yes, and if not then No.
	How is quantity of septage collected estimated? (information entered in ERI sheet cell 3.45)	1.Bulk meters at inlet of treatment plant	If sanitation sheet cell 2.3 has value, then user cannot enter NA in option 1 to 4. If city treats septage and estimates quantity of septage collected from flow meter readings then this should be Yes, and if not then No.
		2. Register maintained for number and volume of trucks emptier at the treatment plant or dump site	For estimation of quantity of septage collected, if city maintains register for trucks emptier number, trips and volume at the treatment plant or dumpsite then this should be Yes, and if not then No.
		3. Installed Plant Capacity	If city estimates quantity of septage collected from installed capacity of treatment plant then this should be Yes, and if not then No.
		4. Number of septic tanks cleaned annually	If city estimates septage collected on the basis of number of septic tank cleaned annually then this should be Yes, and if not then No.
	How quantity of septage actually treated estimated? (information entered in ERI sheet cell 3.52)	1.Weighing scale at outlet of treatment plant	If ERI sheet cell 3.49 is No or NA, then option 1 and 2 will be auto filled with NA. If city estimates treated septage quantity on the basis of weighing scale at outlet of treatment plant then this should be Yes, and if not then No.
		2. Installed Plant Capacity	If city estimates treated septage quantity on the basis of plant capacity then this should be Yes, and if not then No.
	Record keeping of wastewater and septage (information entered in sanitation sheet cells 3.18 to 4.2 and ERI sheet cells 3.45 and 3.52)	1. Computerized	If records of wastewater/septage collection and treatment are computerized then this should be Yes, and if not then No.
		2. Only Manual	If records of wastewater/septage collection and treatment are manual then this should be Yes, and if not then No.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
8.	**Quality of Wastewater**		
	Are proper records of samples conducted and passed/failed for all parameters (BOD, COD, etc.) maintained? (information entered in sanitation sheet cells 6.1 and 6.2)		If sanitation sheet cell 3.18 is zero or "NA" then section 8 will be auto filled with NA. If records are maintained for samples conducted and passed/failed for all parameters (BOD, COD, etc)., then then this should be Yes, and if not then No.
	Are tests for quality conducted through (information entered in sanitation sheet cells 6.1 and 6.2)	1. Own laboratory regularly	If wastewater quality testing has been done by ULB at their own laboratory and records are maintained then this should be Yes, If not then No
		2. Accredited centres regularly	If wastewater quality testing has been done by Accredited centres regularly and records are maintained then this should be Yes, If not then No
	How are audits to monitor wastewater quality procedures carried out? (information entered in sanitation sheet cells 6.1 and 6.2)	1. by independent agencies periodically	If audit to monitor wastewater quality procedure is carried out by any independent agency periodically then this should be Yes, if not then No.
		2. ULB itself occasionally	If audit to monitor water quality procedure is carried out by city itself occasionally then this should be Yes, if not then No.
		1. Computerized	If records of quality test conducted are computerized then this should be Yes, if not then No.
		2. Only Manual	If records of quality test conducted are computerized then this should be Yes, if not then No.
9.	**SWM**		
	How quantity of waste generated is estimated? (information entered in SWM sheet cells 2.1 to 2.7)	1. Quarterly/ sample surveys	If city estimates waste generated on the basis of Quarterly survey or any sample survey then this should be Yes, if not then No.
		2. Per capita waste generation	If city estimates waste generated on the basis of per capita generation (standard values for per capita generation) then this should be Yes, if not then No.
	How quantity of waste segregated is estimated? (information entered in SWM sheet cell 3.1)	1. Measurement at treatment/disposal site	If SWM sheet cell 3.1 is zero, then options 1 to 3 will be auto filled with NA. If city is measuring quantity of waste segregated at treatment plant or disposal site then this should be Yes, if not then No.
		2. HHs & establishments with two bins	If city has provided two bins at HHs and establishment, quantity of waste segregated is estimated on the basis of waste separately collected from bins then this should be Yes, if not then No.
		3. inputs from door to door collection agencies	If city estimates quantity of waste segregated on the basis of inputs from door to door collection agency or staff then this should be Yes, if not then No.
	Estimation of municipal waste received at		
	Treatment plant	1. Weighbridge	If Total Installed Capacity of Processing facilities are 0 or NA, then options 1 to 4 will be auto filled with NA.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
	(information entered in SWM sheet cells 4.1 to 4.10)		If city estimates waste received at treatment site on the basis of weighbridge readings then this should be Yes, if not then No.
		2. On the basis of Trips	If city estimates waste received at treatment site on the basis of trips made by all the vehicles and capacity of vehicles then this should be Yes, if not then No.
		3. Aggregate mass balance	If city estimates waste received at treatment site on the basis of aggregate mass balance (waste collection minus moisture loss and amount disposed at landfill / dump site) then this should be Yes, if not then No.
		4. Installed capacity	If city estimates waste received at treatment site on the basis of capacity of treatment plant then this should be Yes, if not then No.
	Scientific landfill (information entered in SWM sheet cell 5.1)	1. Weighbridge	If SWM sheet cell 5.1 is zero or NA, then options 1 to 4 will be auto filled with NA. If city estimates waste received at scientific landfill site on the basis of weighbridge readings then this should be Yes, if not then No
		2. On the basis of Trips	If city estimates waste received at scientific landfill site on the basis of trips made by all the vehicles and capacity of vehicles then this should be Yes, if not then No.
		3. Aggregate mass balance	If city estimates waste received at scientific landfill site on the basis of aggregate mass balance (collected minus moisture loss and waste recovered through recycling / processing) then this should be Yes , if not then No.
		4. Installed capacity	If city estimates waste received at treatment site on the basis of capacity of scientific landfill site then this should be Yes, if not then No.
	Open dumps (information entered in SWM sheet cell 5.2)	1. Weighbridge	If SWM sheet cell 5.2 is zero or NA, then options 1 to 3 will be auto filled with NA. If city estimates waste received at open dump site on the basis of weighbridge readings then this should be Yes, if not then No
		2. On the basis of Trips	If city estimates waste received at open dump site on the basis of trips made by all the vehicles and capacity of vehicles then this should be Yes , if not then No
		3. Aggregate mass balance	If city estimates waste received at scientific landfill site on the basis of aggregate mass balance (collected minus moisture loss, waste recovered through recycling / processing and scientifically landfilled) then this should be Yes, if not then No.
	Record keeping at		
	Treatment plant	1. Computerized	If Total Installed Capacity of Processing facilities are 0 or NA, then options 1 and 2 will be auto filled with NA.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
	(information entered in SWM sheet cells 4.1 to 4.10)		If records of waste received at treatment facility are computerized then this should be Yes, if not then No.
		2. Only Manual	If records of waste received at treatment are manual then this should be Yes, if not then NA.
	Scientific landfill (information entered in SWM sheet cell 5.1)	1. Computerized	If SWM sheet cell 5.1 is zero or NA, then options 1 and 2 will be auto filled with NA. If records of waste received at scientific landfill are computerized then this should be Yes, if not then No.
		2. Only Manual	If records of waste received at scientific landfill are computerized then this should be Yes, if not then No.
	Open dumps (information entered in SWM sheet cell 5.2)	1. Computerized	If SWM sheet cell 5.2 has value, then options 1 and 2 should not be NA. If records of waste received at open dump site are computerized then this should be Yes, if not then No.
		2. Only Manual	If records of waste received at open dump site are manual then this should be Yes, if not then No.
10.	**Finance**		
	Is regular (quarterly/annual) reporting of the financial statements conducted to state/central agencies?		If city reports financial statement to state or central agencies regularity then this should be Yes, if not then No. None of the options in section 10 should be "NA".
	Are arrears segregated from current demand in financial statements/budgets?		If arrears are segregated from current demand in demand collection statement or budget then this should be Yes, if not then No.
	Extent of segregation of budget heads for		
	Water supply (information entered in water supply sheet cells 8.1 to 8.11)	1. Fully	If budget heads for water supply expenditure and income are fully segregated (clearly stated water supply expenditure) in budget document then this should be Yes, if not then No. Mostly city keeps fully segregated records for water supply budget heads, do check with city.
		2. Partially	If budget heads for water supply expenditure and income are partially segregated in budget document then this should be Yes, if not then No.
	Wastewater (sewage, sullage, septage, public and community toilets) (information entered in sanitation sheet cells 8.1 to 8.11)	1. Fully	If budget heads related to wastewater service expenditure and income are fully segregated (clearly stated wastewater expenditure) in budget document then this should be Yes, if not then No.
		2. Partially	If budget heads related to wastewater service -expenditure and income are partially segregated in budget document then this should be Yes, if not then No. Mostly wastewater budget heads records are merged with health department or solid waste budget heads do check with city.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
	Solid Waste Management (information entered in SWM sheet cells 7.1 to 7.15)	1. Fully	If budget heads related to solid waste management service expenditure and income are fully segregated (clearly stated under solid waste management) in budget document then this should be Yes, if not then No.
		2. Partially	If budget heads related to solid waste management service expenditure and income are partially segregated in budget document then this should be Yes, if not then No. Mostly SWM budget heads records are merged with health department or wastewater budget heads; do check with city.
	Accounting System	1. Accrual-Double entry	If city follows double entry accounting system for keeping records of all financial transactions then this should be Yes, if not then No.
		2. Cash Based	If city follows cash-based accounting system / single entry system for keeping records of all financial transactions then this should be Yes, if not then No.
		3. Both systems	If city follows both cash based/ double entry accounting systems for keeping records of all financial transactions then this should be Yes, if not then No.
	Are records maintained for charges collected against the specific bill issued? (information entered in water supply sheet cells 9.1 to 9.3, sanitation sheet 9.1 to 9.3, SWM sheet 8.1 to 8.3)	1. Water Supply	If city keeps records for collected water supply charges/tax against bill issued then this should be Yes, if not then No.
		2. Sewerage	If city keeps records for collected wastewater related charges/tax against bill issued then this should be Yes, if not then No.
		3. SWM	If city keeps records for collected solid waste related charges/tax against bill issued then this should be Yes, if not then No.
	Are DCB tables linked to billing and collection system?		If Demand Collection and Balance tables (DCB) are linked with billing and collection system i.e., when bill is raised and payment is received then simultaneously DCB has been updated then this should be Yes, if not then No.
	Billing systems	1. Computerized	If billing system is computerized then this should be Yes, if not then No.
		2. Only Manual	If billing system is manual then this should be Yes, if not then No.
	Are billing and collection records regularly updated?		If billing and collection records are updated regularly then this should be Yes, if not then No.
	Record keeping	1. Computerized	If records for all the financial transactions are computerized then this should be Yes, if not then No.
		2. Only Manual	If records for all the financial transactions are manual then this should be Yes, if not then No.

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
12.	**Complaint Redressal System**		
	Are records of complaints resolved maintained?		
	Water supply (information entered in water supply sheet cells 6.1 and 6.2)		If records for complaints related to water supply system received and resolved are maintained then this should be Yes, if not then No.
	Wastewater (sewage, sullage, septage, public and community toilets) (information entered in sanitation sheet cells 7.1 and 7.2)		If records for complaints related to wastewater system received and resolved are maintained then this should be Yes, if not then No.
	Solid Waste Management (information entered in SWM sheet cells 6.1 and 6.2)		If records for complaints related to solid waste management system received and resolved are maintained then this should be Yes, if not then No.
	System for Collating, sorting and tracking of complaints		
	Water supply (information entered in water supply sheet cells 6.1 and 6.2)	1. Computerized	If the records of water supply complaints are computerized and collated. Sorting and tracking can be done then this should be Yes, if not then No.
		2. Only Manual	If the records are manual and collated periodically. Sorting and tracking can be done then this should be Yes, if not then No.
	Wastewater (sewage, sullage, septage, public and community toilets) (information entered in sanitation sheet cells 7.1 and 7.2)	1. Computerized	If the records of wastewater complaints are computerized and collated. Sorting and tracking can be done then this should be Yes, if not then No.
		2. Only Manual	If the records of wastewater complaints are manual and collated periodically. Sorting and tracking can be done then this should be Yes, if not then No.
	Solid Waste Management (information entered in SWM sheet cells 6.1 and 6.2)	1. Computerized	If the records of solid waste management complaints are computerized and collated. Sorting and tracking can be done then this should be Yes, if not then No.
		2. Only Manual	If the records of wastewater complaints are manual and collated. Sorting and tracking can be done then this should be Yes, if not then No.
	Are the records of types of complaints (low water pressure, no water, sewer blocks, etc) maintained?		
	Water supply (information entered in water supply sheet cells 6.1 and 6.2)		If type wise records of complaints are maintained for water supply system then this should be Yes, if not then No.
	Wastewater (sewage, sullage, septage, public and community toilets), (information entered in sanitation sheet cells 7.1 and 7.2)		If type wise records of complaints are maintained for wastewater system then this should be Yes, if not then No.
	Solid Waste Management (information entered in SWM sheet cells 6.1 and 6.2)		If type wise records of complaints are maintained for solid waste management system then this should be Yes, if not then No.
	Are multiple mechanisms to register complaints (through telephone, in person, by email) available to the consumers in		

Sr. No	Reliability parameters for water supply, wastewater, SWM and SWD	Description	Data validation check
	Water supply (information entered in water supply sheet cells 6.1 and 6.2)		If city has system to register complaints related to water supply system via telephone, in person or by email then only then this should be Yes, if not then No.
	Wastewater (sewage, sullage, septage, public and community toilets), (information entered in sanitation sheet cells 7.1 and 7.2)		If city has system to register complaints related to wastewater system via telephone, in person or by email then only then this should be Yes, if not then No.
	Solid Waste Management (information entered in SWM sheet cells 6.1 and 6.2)		If city has system to register complaints related to solid waste management system via telephone, in person or by email then only then this should be Yes, if not then No.

Annex 2: Data validation checks for target values

To set realistic targets for the next year, city should review the service delivery outcomes of ongoing capital works, city plan and budget allocation. The target value for the next year should also corresponds to the current year values.

Sr.No	Indicators	Benchmarks	Maximum values of current year indicators	Data validation checks for target values entered by the users for the next year
1	**WATER SUPPLY SERVICES**			
1.1	Coverage of water supply connections	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
1.2	Per capita supply of water	135 lpcd		The target value of the indicator can either be greater than or equal to that of the current year.
1.3	Extent of metering of water connections	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
1.4	Extent of non-revenue water (NRW)	20.0%	Need to recheck the valueless than 10%	The target value of the indicator can either be less than or equal to that of the current year.
1.5	Continuity of water supply	24 hours	The indicator value cannot be more than 24 hours	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 24 hours.
1.6	Efficiency in redressal of customer complaints	80.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
1.7	Quality of water supplied	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
1.8	Cost recovery in water supply services	100.0%	The indicator value can be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year.
1.9	Efficiency in collection of water supply - related charges	90.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
2	**WASTEWATER MANAGEMENT (SEWERAGE AND SANITATION)**			
2.1	Coverage of toilets	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
2.2	Coverage of sewage network services	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
2.3	Collection efficiency of sewage network	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
2.4	Adequacy of sewage treatment capacity	100.0%	The indicator value can be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year

2.5	Quality of sewage treatment	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
2.6	Extent of reuse and recycling of sewage	20.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
2.7	Extent of cost recovery in sewage management	100.0%	The indicator value can be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
2.8	Efficiency in redressal of customer complaints	80.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
2.9	Efficiency in collection of sewage charges	90.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
3	**SOLID WASTE MANAGEMENT**			
3.1	Household level coverage of solid waste management services	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
3.2	Efficiency of collection of municipal solid waste	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
3.3	Extent of segregation of municipal solid waste	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
3.4	Extent of municipal solid waste recovered	80.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
3.5	Extent of scientific disposal of municipal solid waste	100.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
3.6	Extent of cost recovery in SWM services	100.0%	The indicator value can be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year
3.7	Efficiency in redressal of customer complaints	80.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
3.8	Efficiency in collection of SWM charges	90.0%	The indicator value cannot be more than 100%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 100%.
4	**STORM WATER DRAINAGE**			
4.1	Coverage of storm water drainage network	100.0%	The indicator value cannot be more than 200%	The target value of the indicator can either be greater than or equal to that of the current year, but it cannot exceed 200%.
4.2	Incidence of water logging/flooding	0.0 numbers	-	The target value of the indicator can either be less than or equal to that of the current year

Citation suggestion for this document:

Center for Water and Sanitation.(April, 2023). Ahmedabad: Guidelines for Online Tool for PAS/SLB Checklist and Target SettingCWAS – CRDF – CEPT University. Retrieved from https://cwas.org.in/cwas-resources/pas-slb-e-data-guidelines-for-online-tool-for-slb-checklist-and-target-setting

CENTER FOR WATER AND SANITATION

The Center for Water and Sanitation (CWAS) is a part of CEPT Research and Development Foundation (CRDF) at CEPT University. CWAS undertakes action-research, implementation support, capacity building and advocacy in the field of urban water and sanitation. Acting as a thought catalyst and facilitator, CWAS works closely with all levels of governments - national, state, and local to support them in delivering water and sanitation services in an efficient, effective and equitable manner.

CWAS CENTER FOR WATER AND SANITATION | CRDF CEPT RESEARCH AND DEVELOPMENT FOUNDATION | CEPT UNIVERSITY