Performance Measurement
Using SLB indicators

Workshop on Capacity Building for Service Level Benchmarking (SLB)

18th November, 2013, Chennai

Service Level Benchmarking initiative

- Handbook on Service Level Benchmark is developed by MoUD, which includes
  - Minimum set of **standard performance parameters** for the water and sanitation sector that are commonly understood and used by all stakeholders across the country
  - Define common minimum framework for **monitoring and reporting** on these indicators
  - Set out **guidelines** on how to operationalised this framework in a phased manner
- This framework comprises of 28 SLB indicators

Sector -wise SLB indicators

WATER SUPPLY

9

Indicators

Indicators for Water supply services	Benchmark
Coverage of water supply connections	100%
Per capita supply of water	135 lpcd
Extent of metering of water connections	100%
Extent of Non- Revenue Water (NRW)	20%
Continuity of water supply	24 hours
Quality of water supplied	100%
Efficiency in redressal of customer complains	80%
Cost recovery in water supply services	100%
Efficiency in collection of water supply related charges	90%

Sector -wise SLB indicators

WASTEWATER

9

Indicators

Indicators for Wastewater services	Benchmark
Coverage of toilets	100%
Coverage of sewage network services	100%
Collection efficiency of the sewage network	100%
Adequacy of sewage treatment capacity	100%
Quality of sewage treatment	100%
Extent of reuse and recycling of sewage	20%
Efficiency in redressal of customer complains	80%
Extent of cost recovery in sewage management	100%
Efficiency in collection of sewage charges	90%

Sector -wise SLB indicators

SOLID WASTE	Indicators for Solid Waste Management services	Benchmark
8 Indicators	Household level coverage of solid waste management services	100%
	Efficiency of collection of municipal solid waste	100%
	Extent of segregation of municipal solid waste	100%
	Extent of municipal solid waste recovered	80%
	Extent of scientific disposal of municipal solid waste	100%
	Efficiency in redressal of customer complains	80%
	Extent of cost recovery in SWM services	100%
	Efficiency in collection of SWM charges	90%

Sector -wise SLB indicators

STORM WATER	Indicators for Storm Water Drainage	Benchmark
2 Indicators	Coverage of storm water drainage network	100%
	Incidence of water logging / flooding	0

Online SLB module

Online platform to collect, review and share information related to performance assessment for UWSS sector in various states.

Introduction to online module

- Online measurement and monitoring through web portal, www.pas.org.in

- Web portal – a repository of five year data for 419 cities in the two states – One of largest data base on UWSS sector

- Online data entry modules for both performance indicators and targets

- Online monitoring at city, district and state levels

- On hand information available through customized reports in Excel and PDF

- Graphical and tabular analysis at both state and city levels

- Range of outputs and essential information related to benchmarking

Sector Reports, Good Practices, Improvement Initiatives, etc
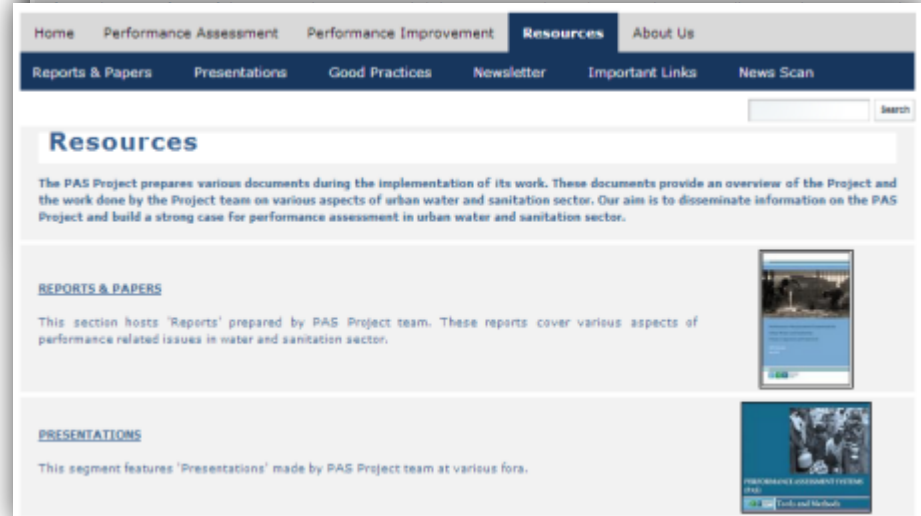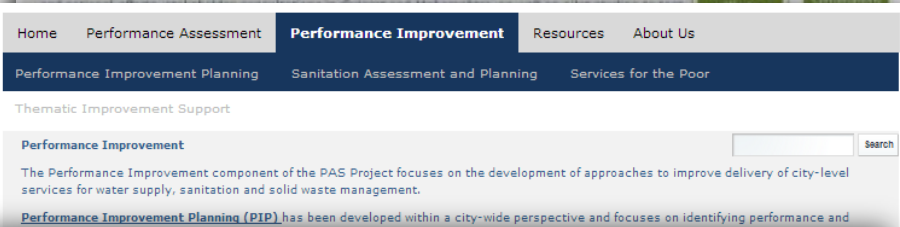
Process of Measurement

Web based measurement and monitoring

Data entry: at city level

Data storage: at state level
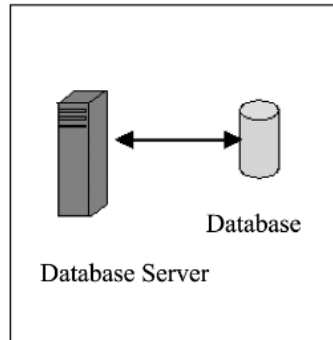
Shared data available at various levels

Database

Database Server

State agencies, data and analysis

Cities – data, results, analysis

Citizens
Access to analysis, results

Stages in Performance Measurement and Monitoring

Performance measurement reports

Online data entry

Access controlled (password for each user)

Validation based on comparative analysis

Final approval of data

Updating data

Review by city and state

City and state profiles
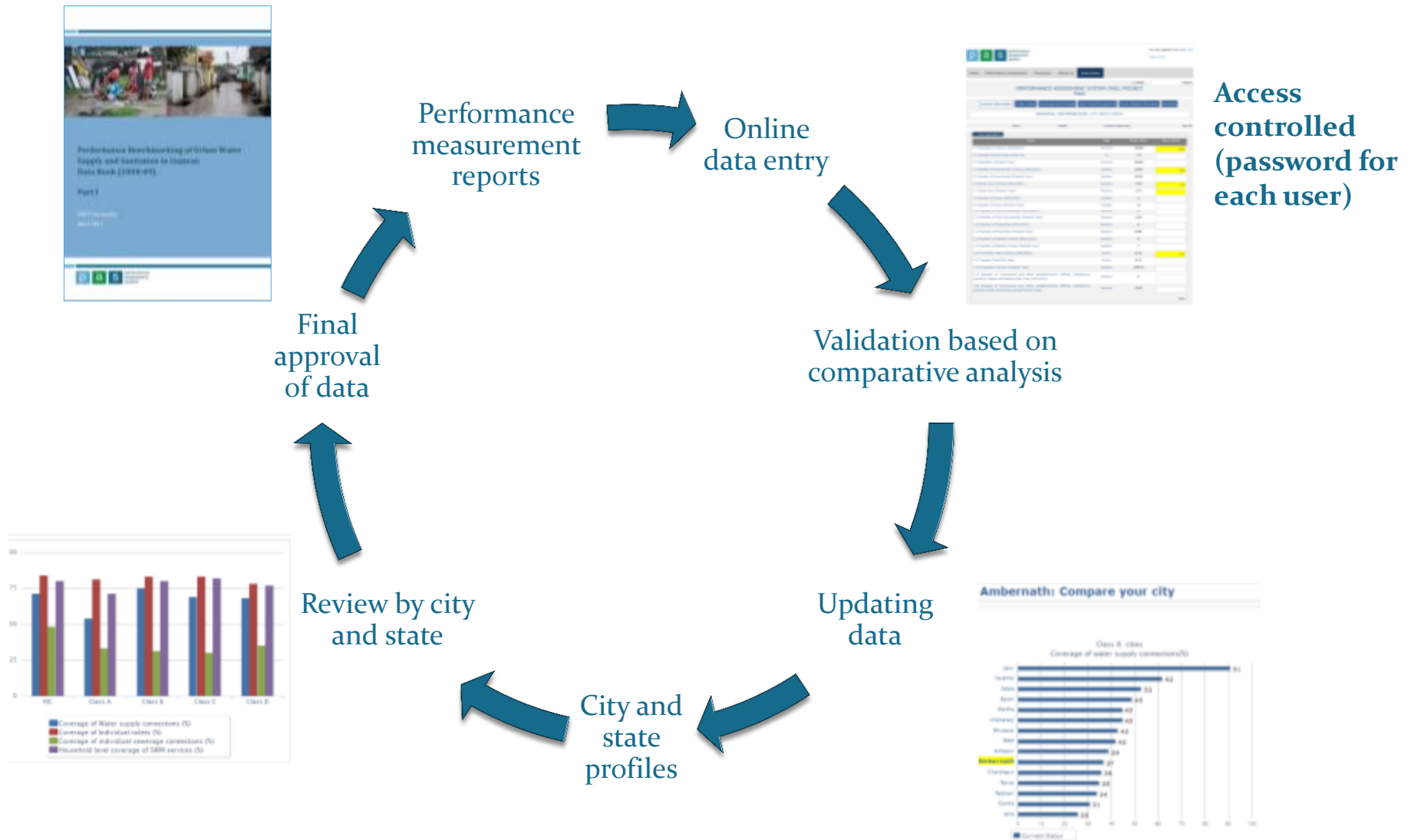
Planned online system for review

State Level (SLB cell)
Monitoring, policy, and recommendations

4

District Collector
Monitoring, Verification of data/results

3

Chief Officer
Monitoring, Verification of data

2

City (SLB cell)
Data entry, verification

1
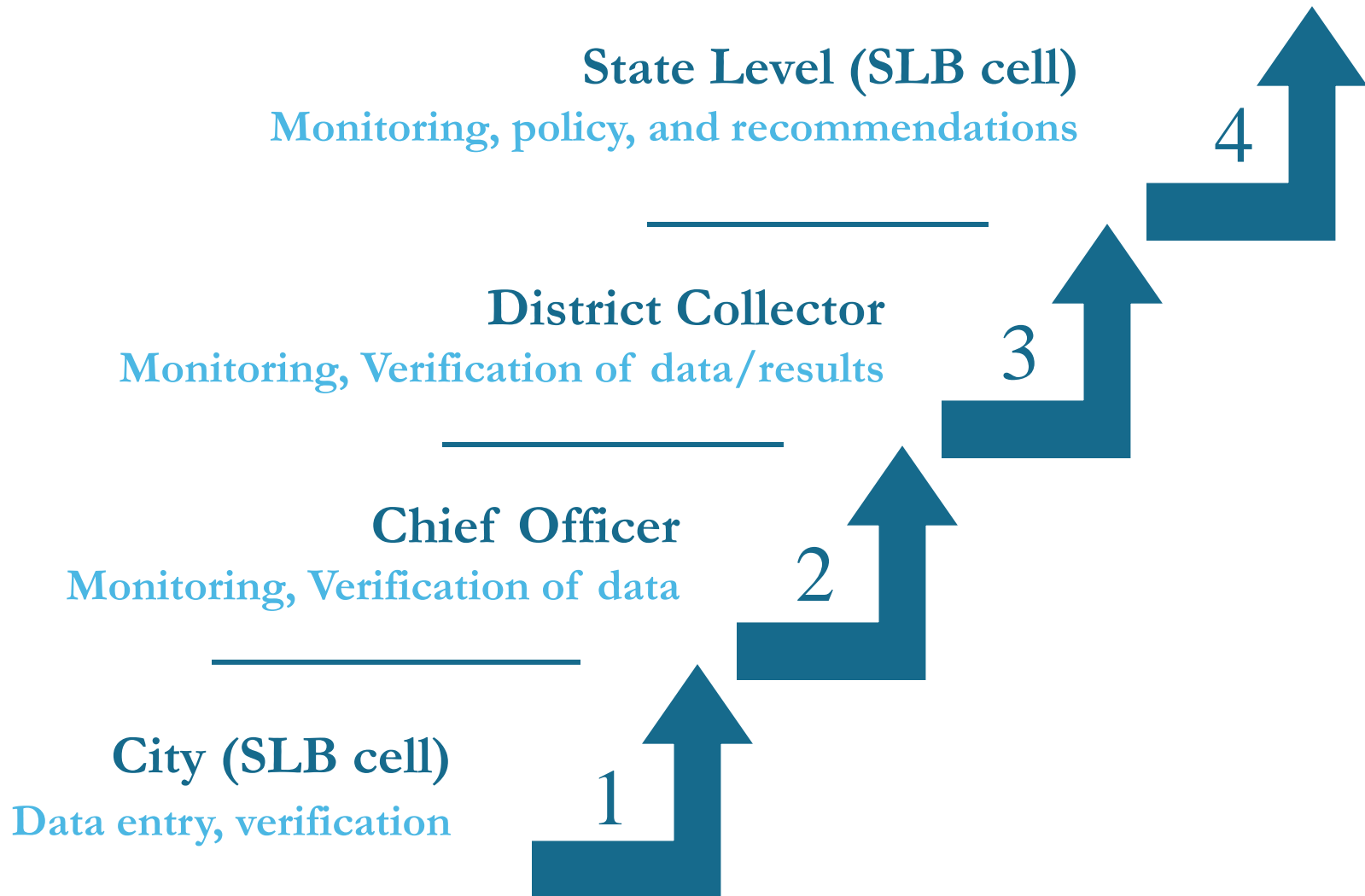
Snapshots of Online data entry

Tools for Measurement

- **Checklist**
- **Target Setting**
- **Reports**

Online data entry for SLB

Unique access for each city

❑ **General instructions on how to fill checklist online**

❑ **Options to download checklist in excel format, and in local language**

❑ **Option to view the approval status**

Online data entry for SLB

□ **Previous year's data displayed alongside current year of data entry**

□ **Options to save each sub section within a sheet; useful in case of connectivity issues during data entry**

Standardized SLB reliability assessment sheet

Reliability assessment for Coverage of Water supply connections

Reliability A

Question	Options	Y/N
What is the basis of estimation of HHs served with individual water supply connections?	1.Through household surveys (1-5 yrs)	Y
	2. Number of residential connections	
	3. Area covered by distribution network	
	4. Road covered by network length	
How are records of HHs served by water supply maintained?	1. Computerized	Y
	2. Only Manual	

❑ Automatic calculate the reliability for an indicator with a set of questions that address the conditions in each reliability band as listed in the Handbook.

❑ Ensures a transparent and consistent comparison across all ULBs.

❑ Where appropriate, state-wide information system improvement efforts will also be supported

Standardized SLB reliability assessment sheet

Reliability assessment for Coverage of Water supply connections

Reliability B

Question	Options	Y/N
What is the basis of estimation of HHs served with individual water supply connections?	1.Through household surveys (1-5 yrs)	
	2. Number of residential connections	Y
	3. Area covered by distribution network	
	4. Road covered by network length	
How are records of HHs served by water supply maintained?	1. Computerized	
	2. Only Manual	Y

❑ Automatic calculate the reliability for an indicator with a set of questions that address the conditions in each reliability band as listed in the Handbook.

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Standardized SLB reliability assessment sheet

Reliability assessment for Coverage of Water supply connections

Reliability C

Question	Options	Y/N
What is the basis of estimation of HHs served with individual water supply connections?	1.Through household surveys (1-5 yrs)	
	2. Number of residential connections	
	3. Area covered by distribution network	Y
	4. Road covered by network length	
How are records of HHs served by water supply maintained?	1. Computerized	
	2. Only Manual	

❑ Automatic calculate the reliability for an indicator with a set of questions that address the conditions in each reliability band as listed in the Handbook.

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Standardized SLB reliability assessment sheet

Reliability assessment for Coverage of Water supply connections

Reliability D

Question	Options	Y/N
What is the basis of estimation of HHs served with individual water supply connections?	1.Through household surveys (1-5 yrs)	
	2. Number of residential connections	
	3. Area covered by distribution network	
	4. Road covered by network length	Y
How are records of HHs served by water supply maintained?	1. Computerized	
	2. Only Manual	

❑ Automatic calculate the reliability for an indicator with a set of questions that address the conditions in each reliability band as listed in the Handbook.

❑ Ensures a transparent and consistent comparison across all ULBs.

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SLB Indicator Reports

- ❑ **Options to view indicator report**
- ❑ **Option to print and save indicator report in PDF**

Approval stages for online data entry

Approval stages for city

Online Entry for Targets as per 13th Finance Commission

Targets for each SLB indicators can be entered by city ; compared to the service levels attained in previous years

As in **Data Entry**, these pages are access controlled

Online monitoring of the targets set by cities can be done by state cell

Online Target Entry

Target Setting for Kadi for FY 2013-2014

The 13th Central Finance Commission (CFC) which submitted its report in 2010 has recommended specific performance based grants for urban local bodies.

One of the conditions to access these grants is the notification of service standards for the sectors of water supply, sewerage, storm water drainage and solid waste management by the state government. The notified service standards are targets to be set for each ULB through a consultative process. The targets have to be entered for each of the indicators listed in the table below for the year 2012-13.

Water supply: KPIs	2009-2010	2010-2011	2011-2012	2012-2013	Target for 2012-2013	Target for 2013-2014
Coverage of water supply connections(%)	85.2	84.1	85.6	91.1	100.0	95.0
Per capita supply of water at consumer end(lpcd)	115.6	116.1	137.8	137.3	135.0	140.0
Extent of metering of water connections(%)	NA	NA	NA	NA	NA	NA
Extent of non-revenue water(%)	33.1	31.5	26.5	24.1	20.0	20.0
Continuity of water supply(hrs per day)	1.0	1.0	1.0	1.0	1.0	1.0
Efficiency in redressal of customer complaints(%)	70.0	70.0	83.0	85.0	85.0	90.0
Quality of water supplied(%)	100.0	100.0	98.4	84.5	100.0	90.0
Cost recovery in water supply services(%)	35.1	54.4	40.2	40.2	45.0	50.0
Efficiency in collection of water supply related charges(%)	54.5	63.4	70.2	70.2	89.0	70.0
Coverage of water supply connections in slums(%)	100.0	100.0	70.0	77.6	80.0	80.0

Wastewater: KPIs	2009-2010	2010-2011	2011-2012	2012-2013	Target for 2012-2013	Target for 2013-2014
Coverage of toilets(%)	98.7	98.7	90.8	90.4	95.0	95.0
Coverage of waste water network services(%)	27.0	26.2	26.0	50.5	50.0	80.0
Collection efficiency of waste water network(%)	3.2	3.2	4.0	NA	15.0	15.0

□ **Previous and current year of status and previous year target for each indicator can be viewed while entering targets for the next year**

ULB level target setting model

Target Model provides guidance for setting annual targets for SLB indicators – as per the 13th FC requirements. It helps to asses feasible targets base on trend analysis as well as ongoing capital works

STANDARDISED SERVICE LEVEL BENCHMARKS
### PERFORMANCE ASSESSMENT SYSTEMS (PAS) PROJECT
TARGET MODEL

USER GUIDE		ULB TARGET		GUIDELINES	
WATER SUPPLY		WASTE WATER	SOLID WASTE	SUMMARY	

CLASS: B

BASIC INFORMATION

	POPULATION	HOUSEHOLDS	SLUM POPULATION SHARE	AREA (sq kms)
CITY: Kadi	77,778	17,831	12%	20

WATER SUPPLY

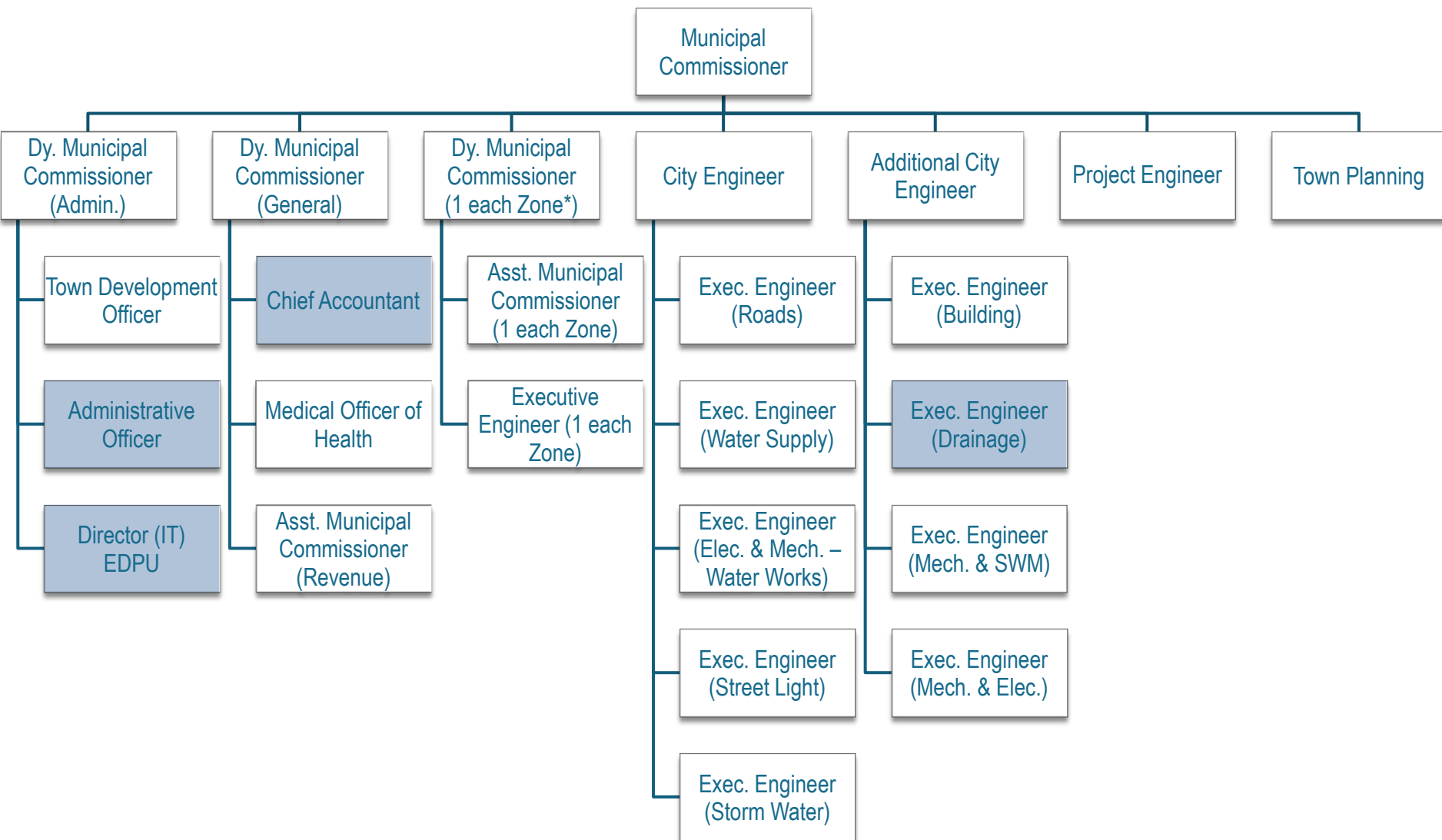| KPIs and action areas	Ongoing Projects	2009-10	2010-11	2011-12	2012-13	Projected for 2013-	SET TARGET FOR 2013-14	
Ongoing distribution network expansion project								
No of HHs served	1,500							
Project cost (Rs in lakh)	4							
Coverage of individual water supply connections (%)		85	84	86	91	96	100	TARGET
Number of households served with individual connections		13,784	14,167	14,857	16,239	17,739	18,389	
Additional number of households connected/ required to achieve			383	690	1,382	1,500	650	
Income generated by increasing coverage (Rs in lakh)						10	1,500	Per connection charges paid by citizens (Rs / connection)
Source augmentation								
Additional water withdrawal (MLD)	2							
If source of water is bulk purchase then specify bulk water charge	4							
Project cost (Rs in lakh)	4							
Per capita supply at consumer end (lpcd)		116	116	138	137	151	150	TARGET
Water production requirement (MLD)		13.0	13.0	14.8	14.8	16.8	15.8	
Residential water consumption including public taps		8.3	8.5	10.4	10.7	12.1	12.0	
Additional water augmentation done/ required to achieve target			0.0	1.8	0.0	2.0	0.0	

Data improvement measures

Information system improvement initiative

- Linking SLB online data collection with existing functional EDP /e-governance departments in cities

- System to periodically record required information and generate SLB indicators (at city/zonal and ward level)

- Currently being attempted in 2 cities Vadodara municipal corporation and Kalyan-Dombivali Municipal corporation

MoU with Vadodara Municipal Corporation
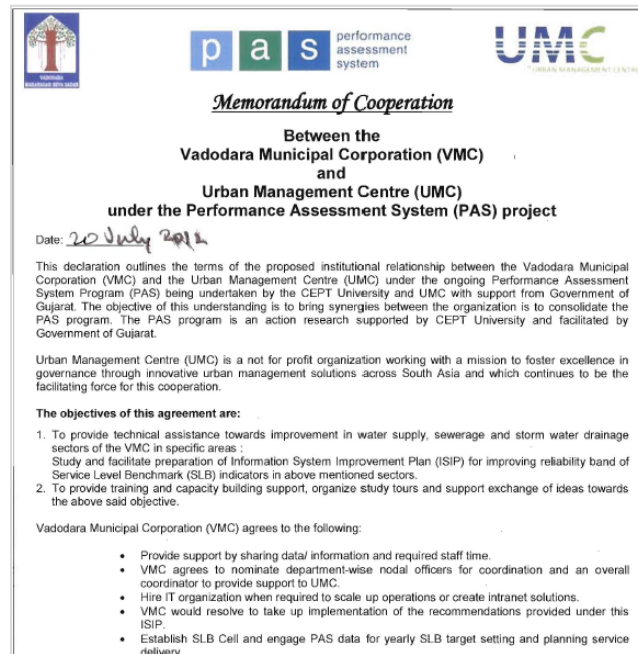
ISIP Initiative – Departments, Staff and Data Sources

MAPPING Relevant Department/officers for Vadodara Sewerage system SLB Data

Municipal Commissioner

- Dy. Municipal Commissioner (Admin.)
  - Town Development Officer
  - Administrative Officer
  - Director (IT) EDPU
- Dy. Municipal Commissioner (General)
  - Chief Accountant
  - Medical Officer of Health
  - Asst. Municipal Commissioner (Revenue)
- Dy. Municipal Commissioner (1 each Zone*)
  - Asst. Municipal Commissioner (1 each Zone)
  - Executive Engineer (1 each Zone)
- City Engineer
  - Exec. Engineer (Roads)
  - Exec. Engineer (Water Supply)
  - Exec. Engineer (Elec. & Mech. – Water Works)
  - Exec. Engineer (Street Light)
  - Exec. Engineer (Storm Water)
- Additional City Engineer
  - Exec. Engineer (Building)
  - Exec. Engineer (Drainage)
  - Exec. Engineer (Mech. & SWM)
  - Exec. Engineer (Mech. & Elec.)
- Project Engineer
- Town Planning

MAPPING SLB Data & Indicators Monitoring within various Departments of VMC

Department/ officer contributing to sewerage indicators

Department	Officer	Coverage of toilets	Coverage of sewerage	Collection efficiency of network	Adequacy of treatment capacity	Quality of treatment	Reuse & recycling	Efficiency in complaints	Cost recovery	Efficiency in collection of charges
Dy. Municipal Commissioner (Admin.)	Administrative Officer									
	Director (IT) EDPU	✓	✓			✓		✓		✓
Dy. Municipal Commissioner (General)	Chief Accountant								✓	
City Engineer	Exec. Engineer (Water Supply)			✓	✓					
Additional City Engineer	Exec. Engineer (Drainage)			✓	✓	✓	✓			
	Exec. Engineer (Mech. & SWM)									

Monitoring under SLB cell

- **State Profile**
- **Know Your City**

State level monitoring

Options to download

- ❑ Data for all years

- ❑ Indicators for all years

- ❑ Targets in gazette format, excel/ PDF

State Profile based on SLB Indicators
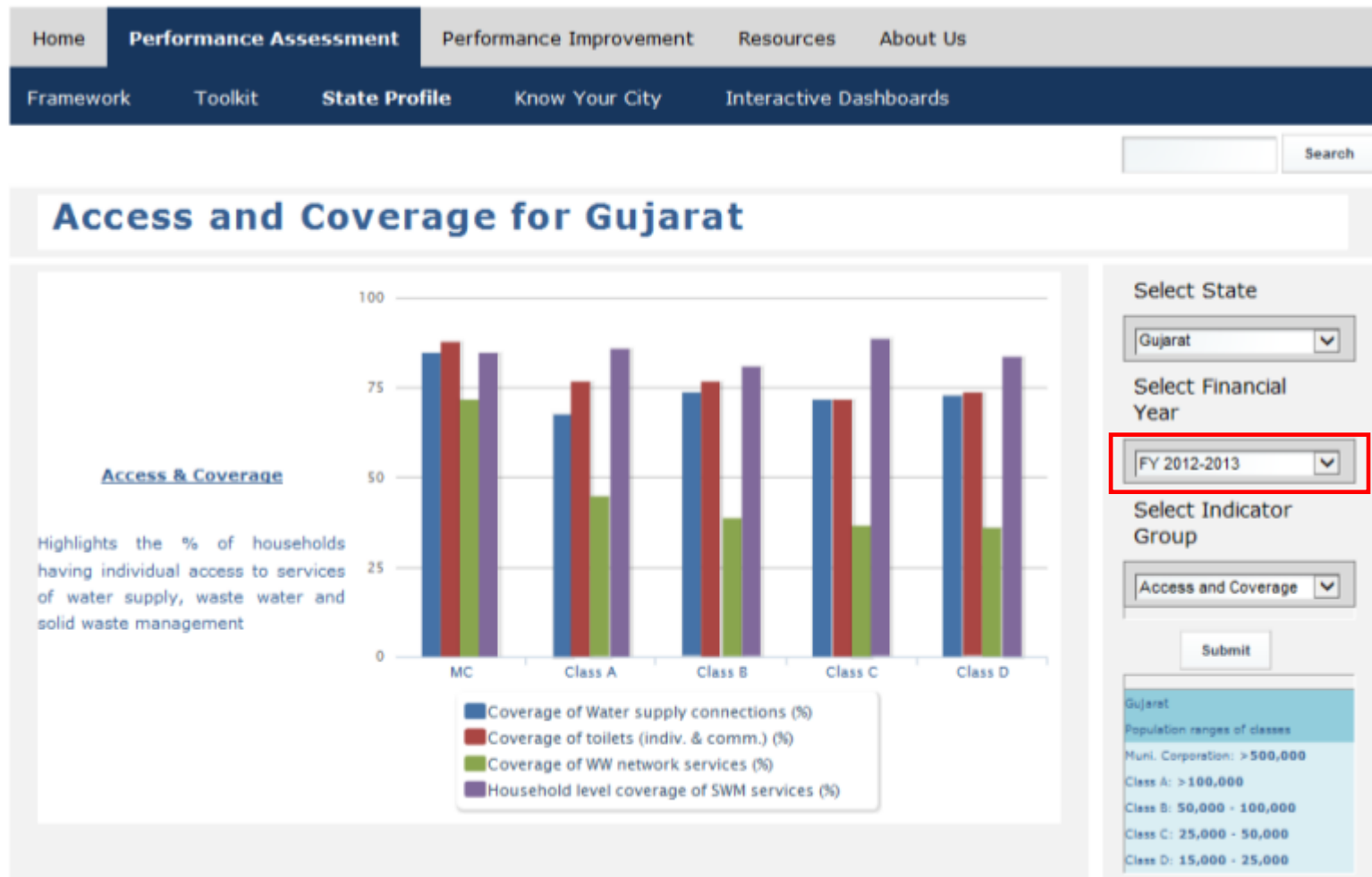
Option to view **year wise** information

State Profile based on SLB Indicators
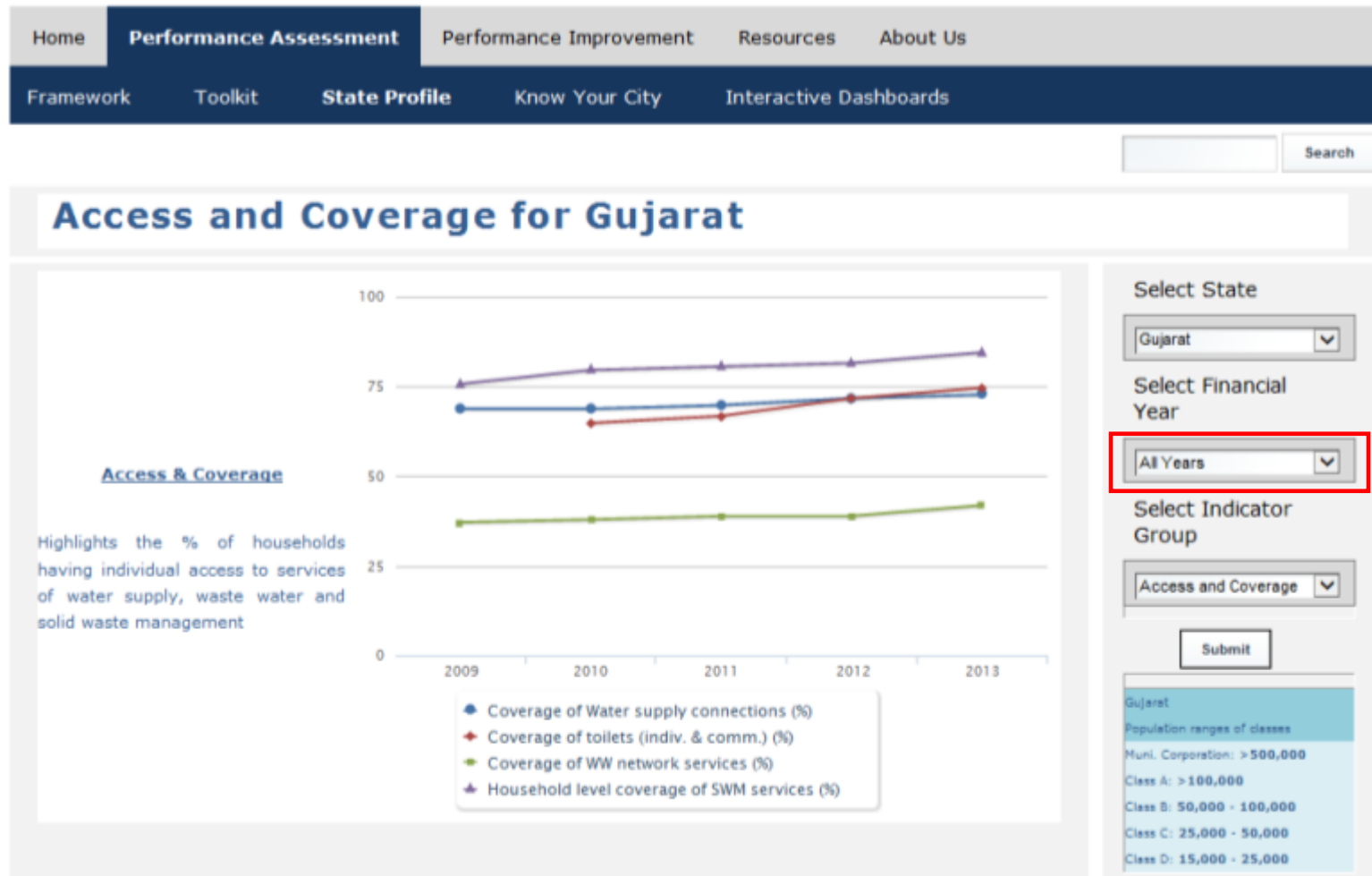
Option to track **historical data**

State Profile based on SLB Indicators
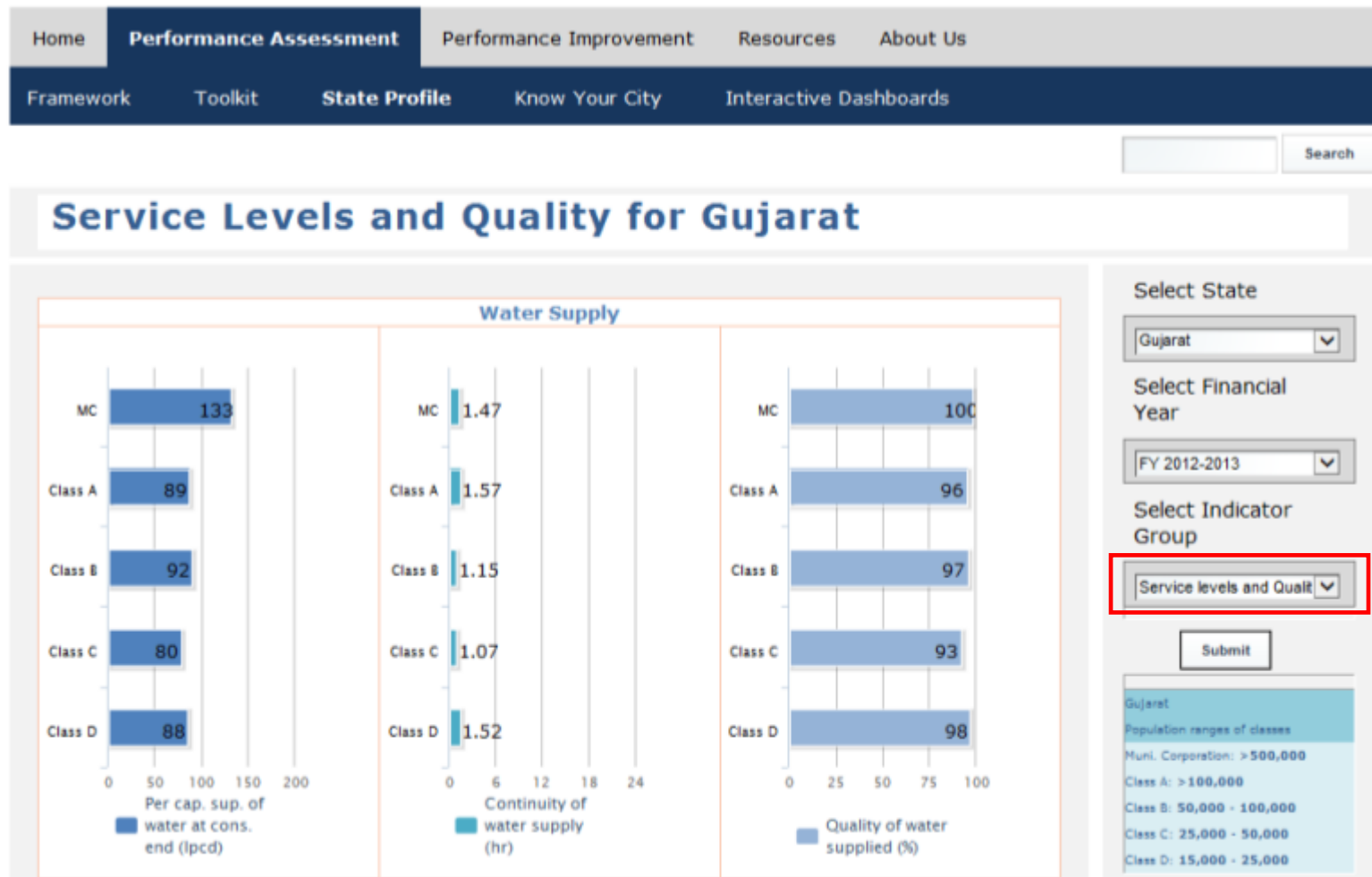
Option to view **Thematic** State profile

City Profile

Overview of the city provides general information across all the sectors

City Profile

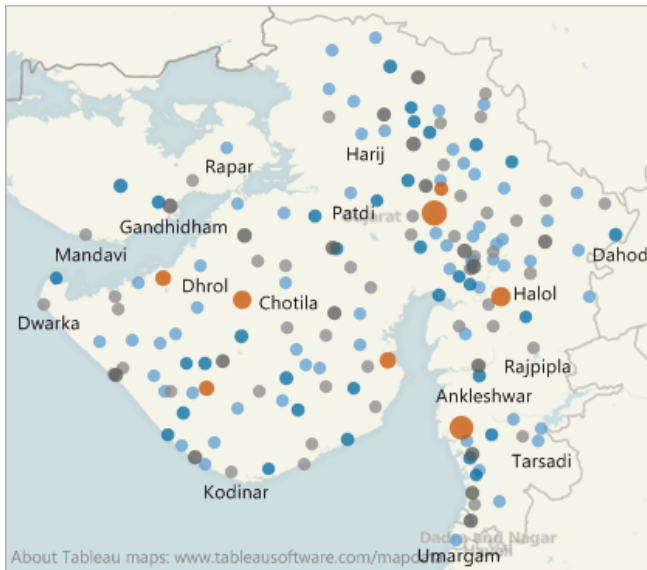**City Profile** gives results based on SLB indicators for each sector
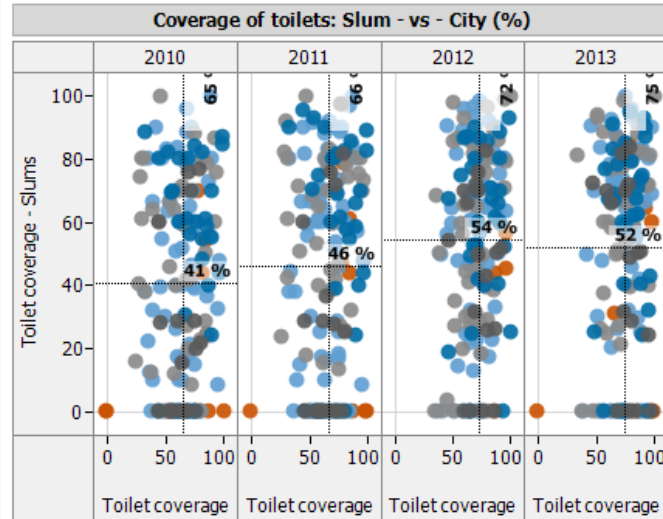
City Profile
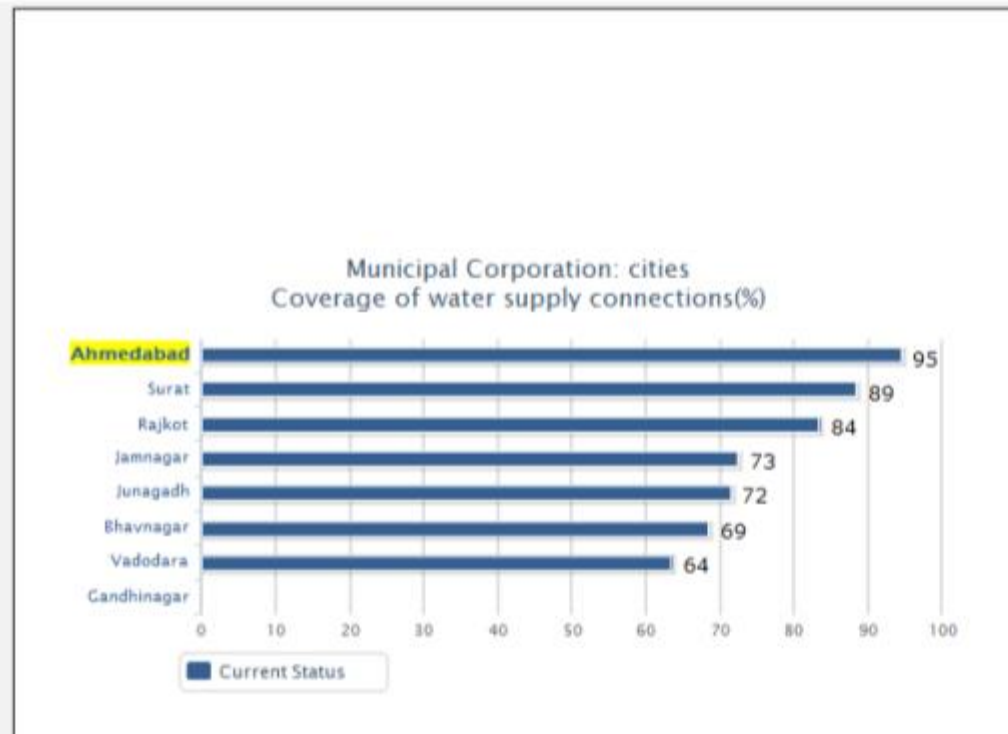
Compare Your City helps each city compare itself with another city based on its respective class or state.

Analysis of Indicators by Interactive Dashboards

Interactive data visualization that provides valuable insight

Analysis of Indicators by Interactive Dashboards

Interactive data visualization that provides valuable insight

Allows drilling down from indicators, charts and maps to read data better

Analysis of Indicators by Interactive Dashboards

Dashboard Showing **Wastewater SLB Indicators** for **Vadodara** (Class: MC)

Access and Coverage
Highlights the % of HHs having access to services of waste water (sanitation and sewerage)

Equity in Service Delivery
Highlights the variations in city level coverage as well as between poor and non-poor HHs in the city

Service Levels and Quality
Highlights the quantity of WW collected and treatment capacity of Sewage Treatment Plant

Efficiency in Service Operations
Highlights extent of WW treatment before disposal, reuse/ recycling of waste-water, and collection of sewerage related charges

Financial Sustainability
Highlights the revenues accrued to expenses incurred in service operations

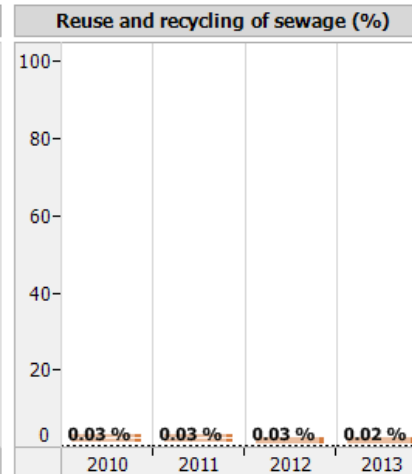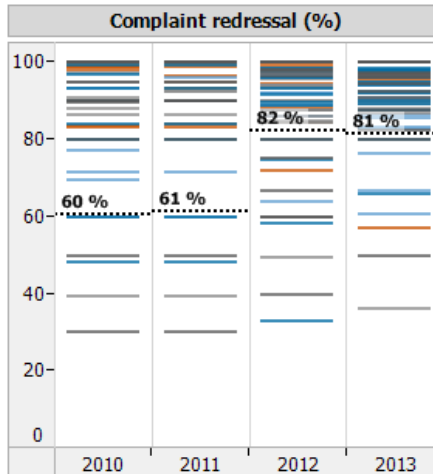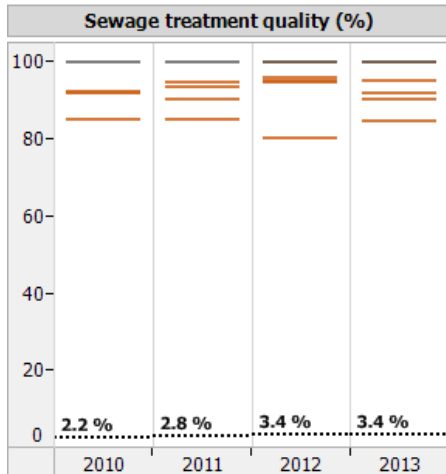| ULB Overview	2010	2011	2012	2013
Area (sqkm)	159	159	159	159
Present Population (1000's)	1,631	1,667	1,713	1,739
Households (1000's)	384	396	407	416
Slum population (1000's)	290	252	252	252
Slum HHs (1000's)	58	50	50	49
Total revenue income (Million Rs)	5,620	5,357	4,556	5,647
Total revenue expenditure (Million Rs)	4,098	4,500	4,121	5,128
Capital receipts of ULB (Million Rs)	2,311	1,624	2,462	1,162
Capital expenditure by ULB (Million Rs)	4,423	3,788	1,088	3,578

Interactive data visualization that provides valuable insight

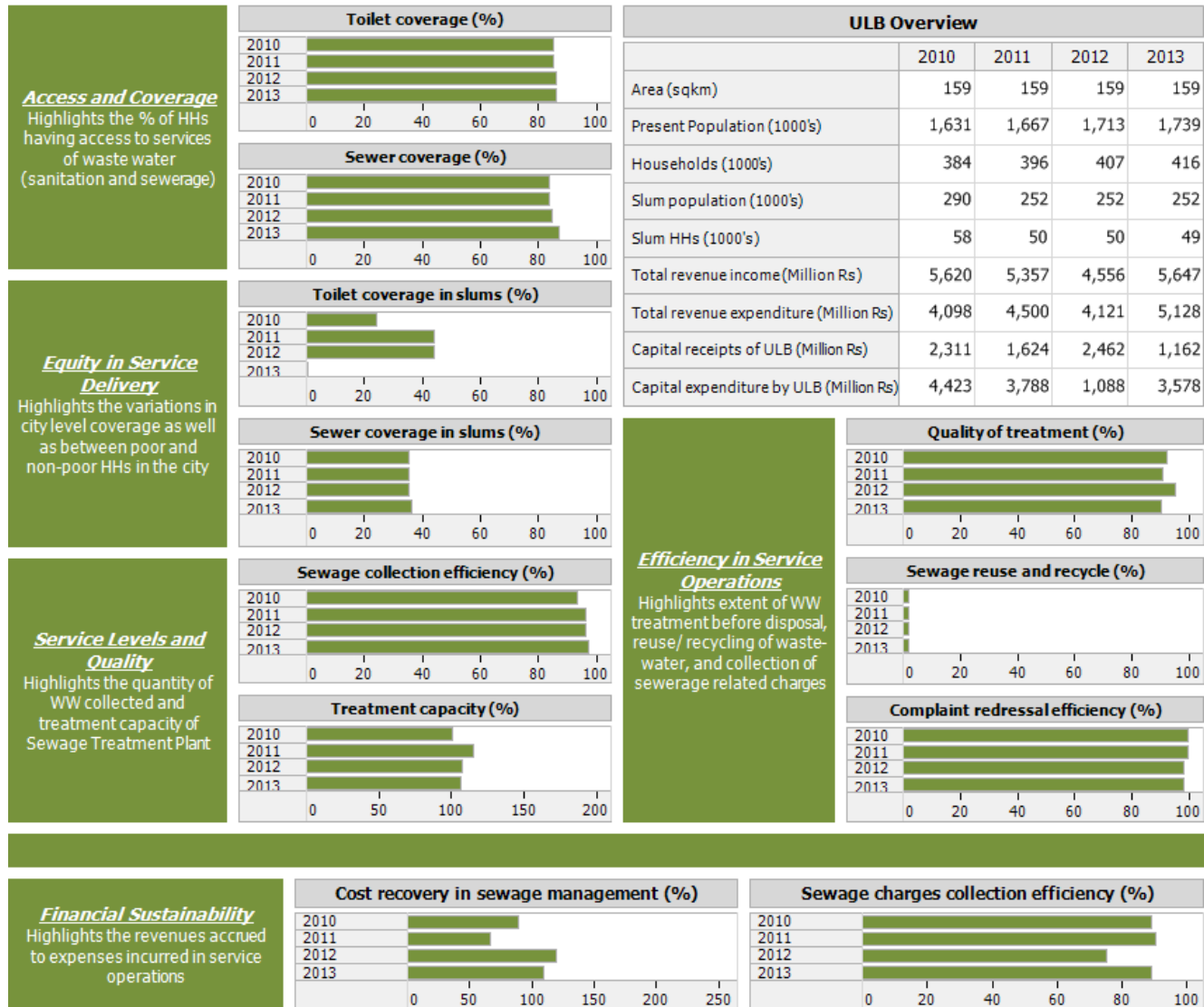Allows drilling down from indicators, charts and maps to read data better

Allows combination of multiple data sources to keep track of performance

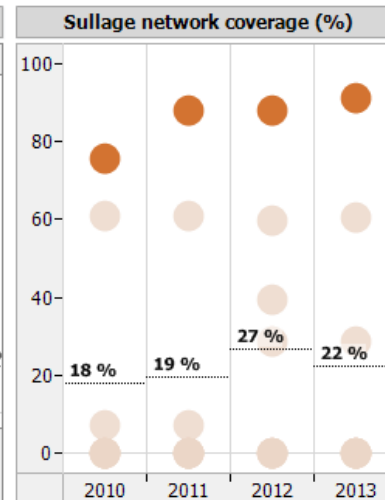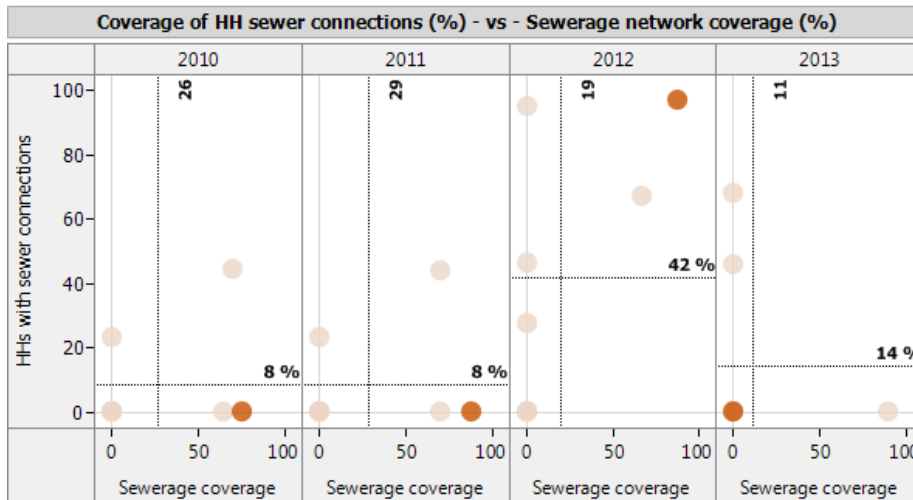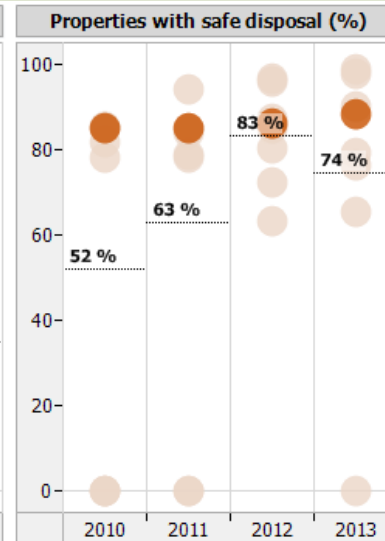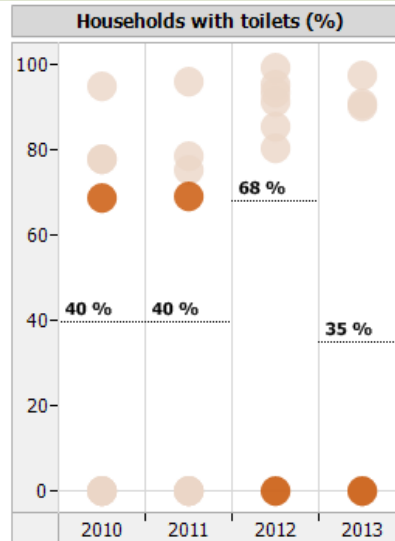# Analysis of Indicators by Interactive Dashboards

Indicators for **Access and Coverage** in **Wastewater Services**

ULB : *Vadodara*, Class: **MC**

- Interactive data visualization that provides valuable insight

- Allows drilling down from indicators, charts and maps to read data better

- Allows combination of multiple data sources to keep track of performance

- Indicates points of action or decision required

Thank You