



PAS@15

Lessons from 15 years of Performance Assessment of Water and Sanitation Services in India

Meera Mehta, Dinesh Mehta

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**With support from team at the Center
for Water and Sanitation, CRDF, CEPT
University**

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Need for Performance Assessment System (PAS) in India

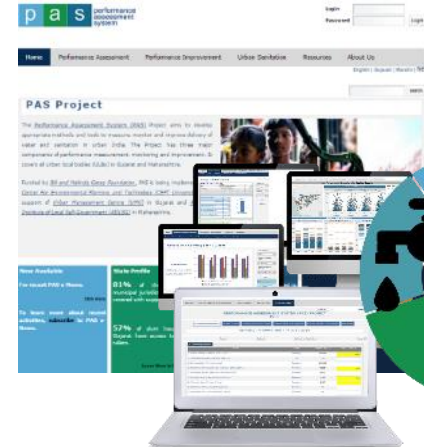
Indian Context

- Intermittent Water Supply
- Less than 10% of connections metered
- WASH services provided by local governments not utilities
- Capital investments funded by national and state governments



Changing mindset of Engineers: From infrastructure creation to service delivery

Moving from paper-based systems to “digital system”



PAS approach – moving to a virtuous cycle



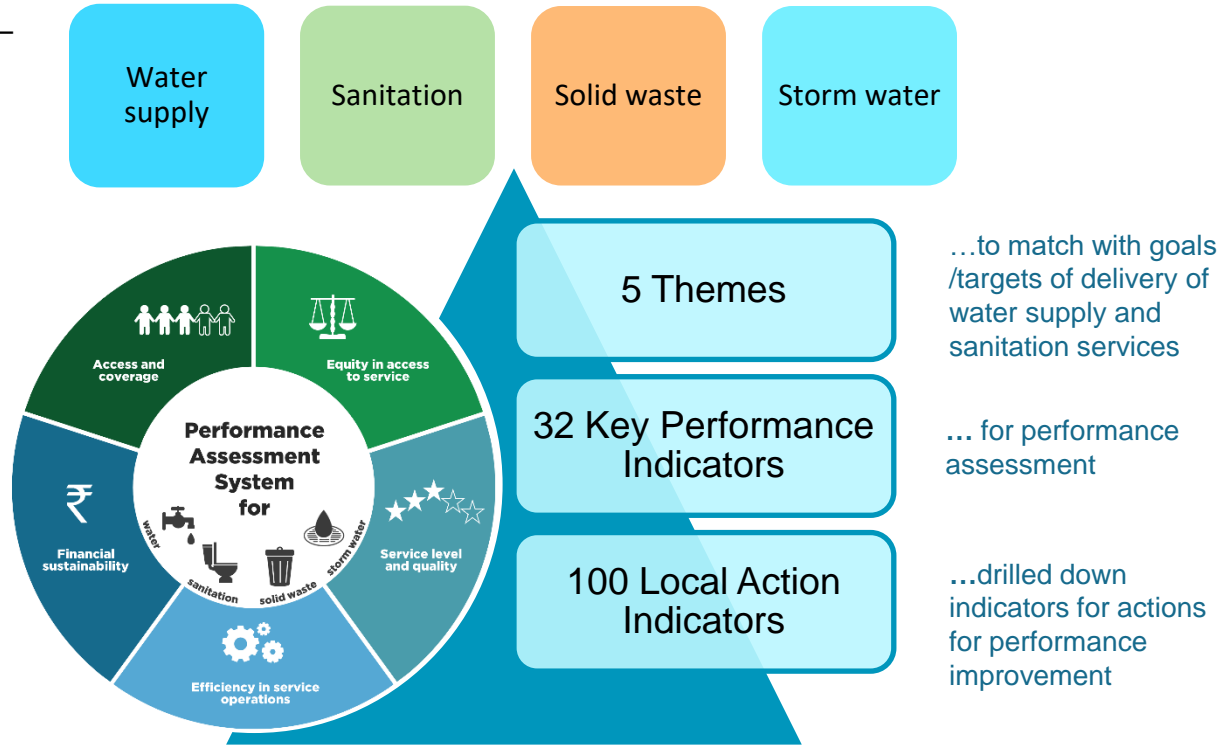
Measure and monitor performance to reward and learn from success and demonstrate results



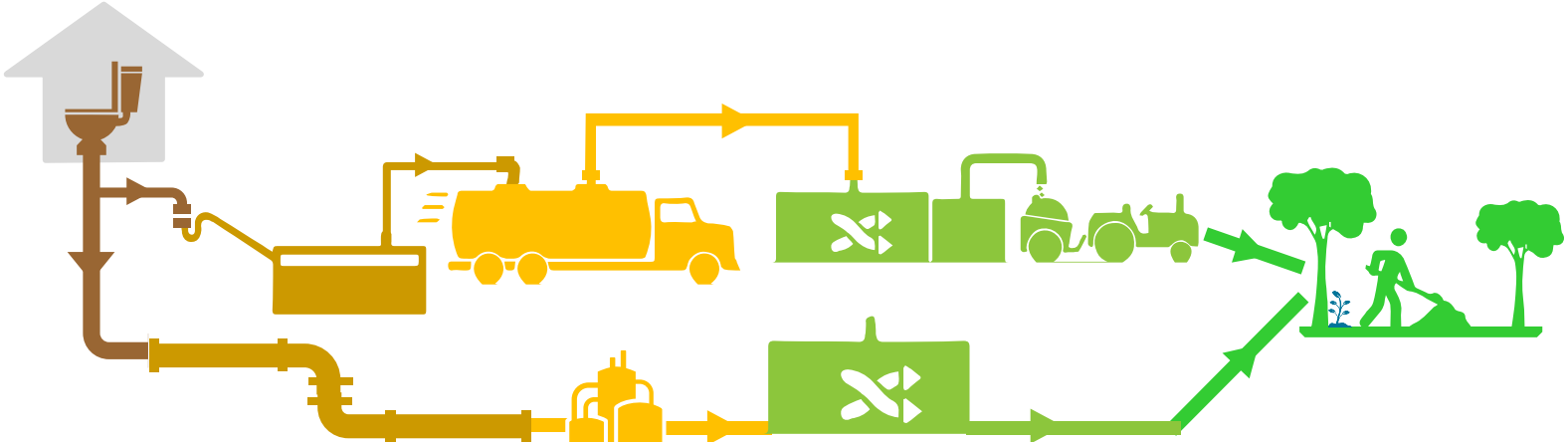
Service level benchmarks: PAS - SLB+ Framework

Advice from Experts

- Better to be roughly right than be precisely wrong
- Setting up Benchmarking Pilots are easy – Scaling up to cover all utilities is a challenge
- Build up on existing monitoring system
- Keep it SIMPLE, EASY to understand and implement
- Create financial incentives for use of Benchmarking



Adapting SLB Framework for the Indian context



Indicators for onsite sanitation systems

1. Coverage of toilets

2. Coverage of adequate sanitation systems (Septic tanks + sewer connections)

3. Collection efficiency of sanitation system (Desludging+ sewerage + grey water)

4. Adequacy of treatment capacity of sanitation system (FSTP + STP)

5. Quality of treatment of sanitation system (FSTP+STP)

6. Extent of reuse and recycling in sanitation system (FSTP + STP)

Indicators to track equity in service delivery

Coverage of toilets, water supply connections, door to door solid waste collection in slums

Coverage of sewerage connections in slums

Process of data collection and validation

Training

- State govt. appoint agency for data collection and validation
- Organised and conduct training for city officials

Data collection

- State govt. instruct cities to enter data online
- City officials enter data from their offices
- Agency : Follow up with cities

Data validation

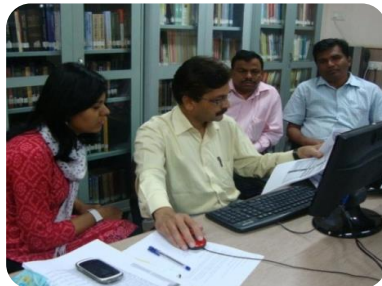
- Inbuilt validation rules during data entry and at submission time
- After submission, sector experts appointed by state government will do desk validation

Results publication

- SLB Gazette publication by state
- Analysis results published on website

Data verification

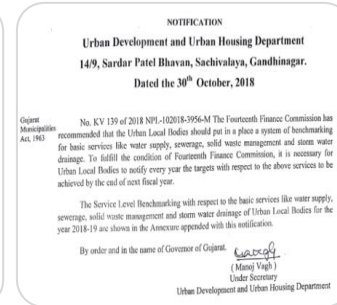
- Field Verification in selected cities
- Prepare data improvement plan / strategies



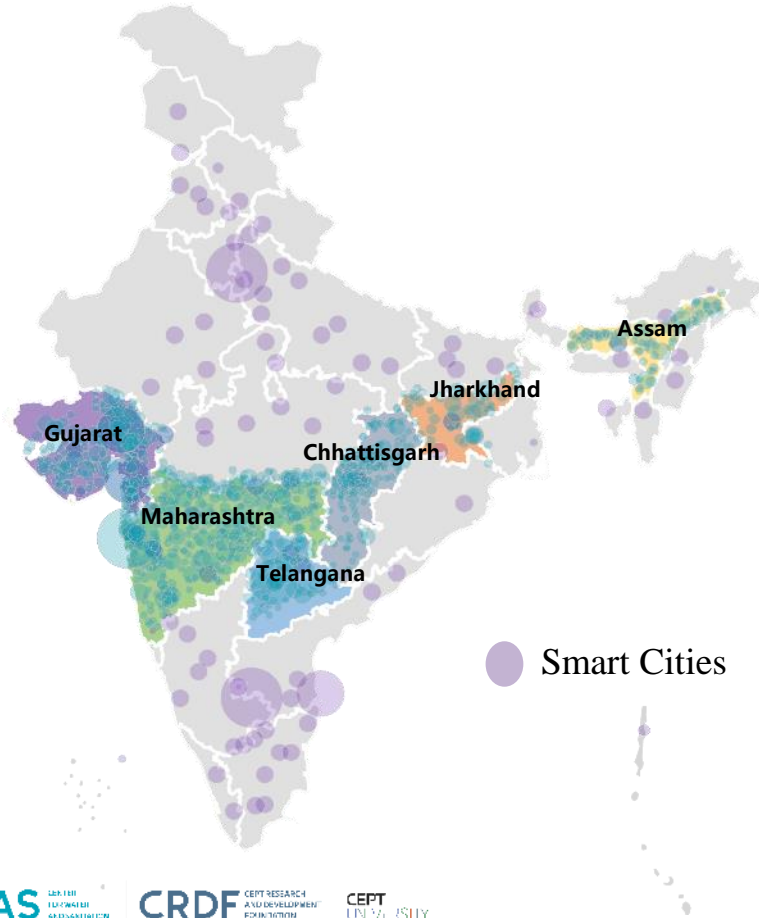
Performance Assessment System (PAS) PROJECT
Nandura

Progressive SLB - FY 2014-2015

Sl. No.	Sl. No.	Sl. No.	Sl. No.	Sl. No.
1.1	1.2	1.3	1.4	1.5
Total Number of Properties in the City	Number	10000	10000	10000
Properties with SLBs	Number	7754	7754	7754
Properties dependent on functional community toilets	Number	545	545	545
Total Number of Properties with access to SLBs	Number	8358	8358	7660



15 years of PAS: From 400 to 4000 cities



2009 – 416 cities

68 Mn population, 2 states

2018 – 900+ cities

96 Mn population, 6 states

2022: 1000+ cities

100 Mn population, Linked with India's **Smart city mission and city finance portal**

2023- 4000++

In discussion with Government of India -15th Finance Commission mandate

Lessons from 15 years of PAS



1. Digital systems are needed for achieving scale



Information exists with cities...

Journey from a paper based to online system



Industry-academic partnership



...but paper based and fragmented
– not collated, analyzed or reported



Digital platform working at scale

- Online module for self reporting
- Inbuilt validation checks
- Scientific system for calculating indicators
- Comparative dashboards
- Local language supported

Maintained in isolation and usually not shared



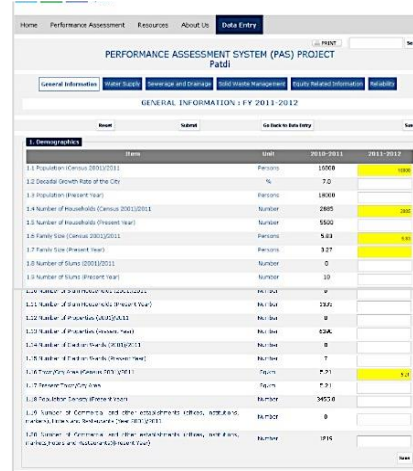
Develop an E-platform that enables analysis

Raw Data



Raw data tables and spreadsheets showing various metrics and information, including a table titled 'Rajal Municipal Corporation Water Distribution in All Zones' and another table with columns for 'Sl. No.', 'Name', 'Address', 'Phone No.', 'Email', and 'Status'.

Information: Performance Measurement with indicators on PAS portal



Performance Assessment System (PAS) portal screenshot showing 'GENERAL INFORMATION : FY 2011-2012' and a table of indicators. The table lists various indicators such as Population, Growth Rate, and Family Size, with values for 2010-2011 and 2011-2012.

Indicator	2010-2011	2011-2012
1.1 Population (Census 2011/2011)	15008	15008
1.2 Growth Rate of the City	7.0	7.0
1.3 Population Increase Year	14000	14000
1.4 Number of Households (Census 2011/2011)	2940	2940
1.5 Number of Households (House Year)	5500	5500
1.6 Family Size (Census 2011/2011)	5.43	5.43
1.7 Family Size (House Year)	3.27	3.27
1.8 Number of Slump (2011/2011)	0	0
1.9 Number of Slump (House Year)	10	10
1.10 Number of Population (Census 2011/2011)	9	9
1.11 Number of Population (House Year)	134	134
1.12 Number of Population (House Year)	0	0
1.13 Number of Population (Census Year)	634	634
1.14 Number of Population (House Year)	0	0
1.15 Number of Population (House Year)	7	7
1.16 Population (House Year)	231	231
1.17 Population (House Year)	131	131
1.18 Population (House Year)	14510	14510
1.19 Number of Complaints (Other establishments, shops, markets, restaurants, hotels, etc.)	0	0
1.20 Number of Complaints (Other establishments, shops, markets, restaurants, hotels, etc.)	1718	1718

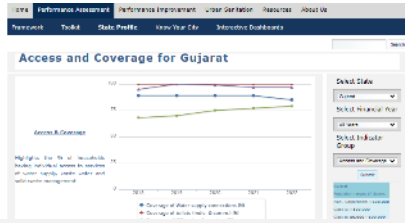


Knowledge: City and State UWSS profiles



Dashboards for different user groups, and enable time series comparisons across cities

- Time series comparisons across
- Review the year wise improvement of the ULB using [know your city](#) tab
- State can assess thematic performance on [state profile](#) tab.
- Identify areas for improvement- using [interactive dashboards](#)



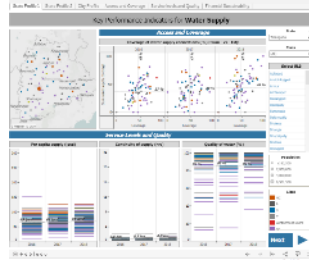
State profile: State can assess thematic performance at state and city level



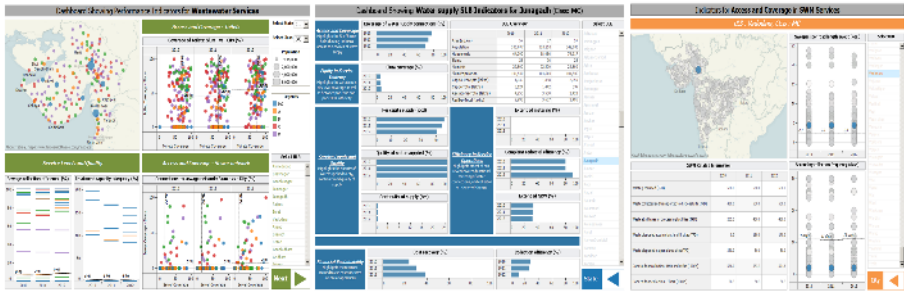
Customized dashboard



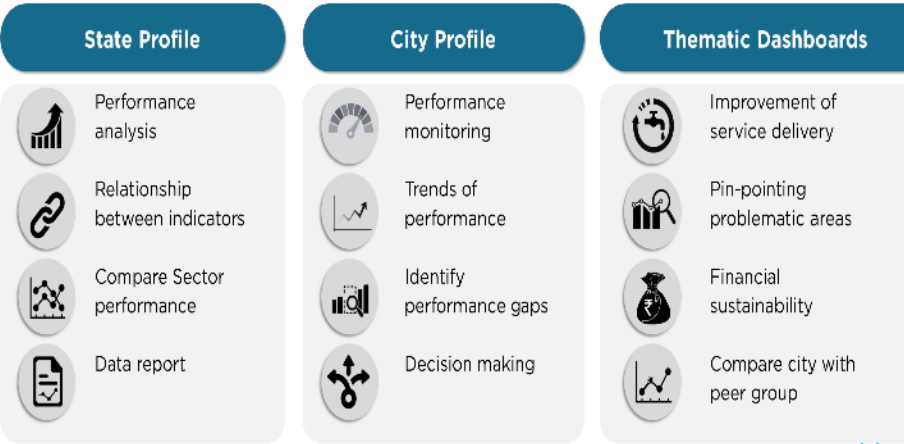
Know your city and Compare Your city : city can compare itself with another city based on its respective class or district



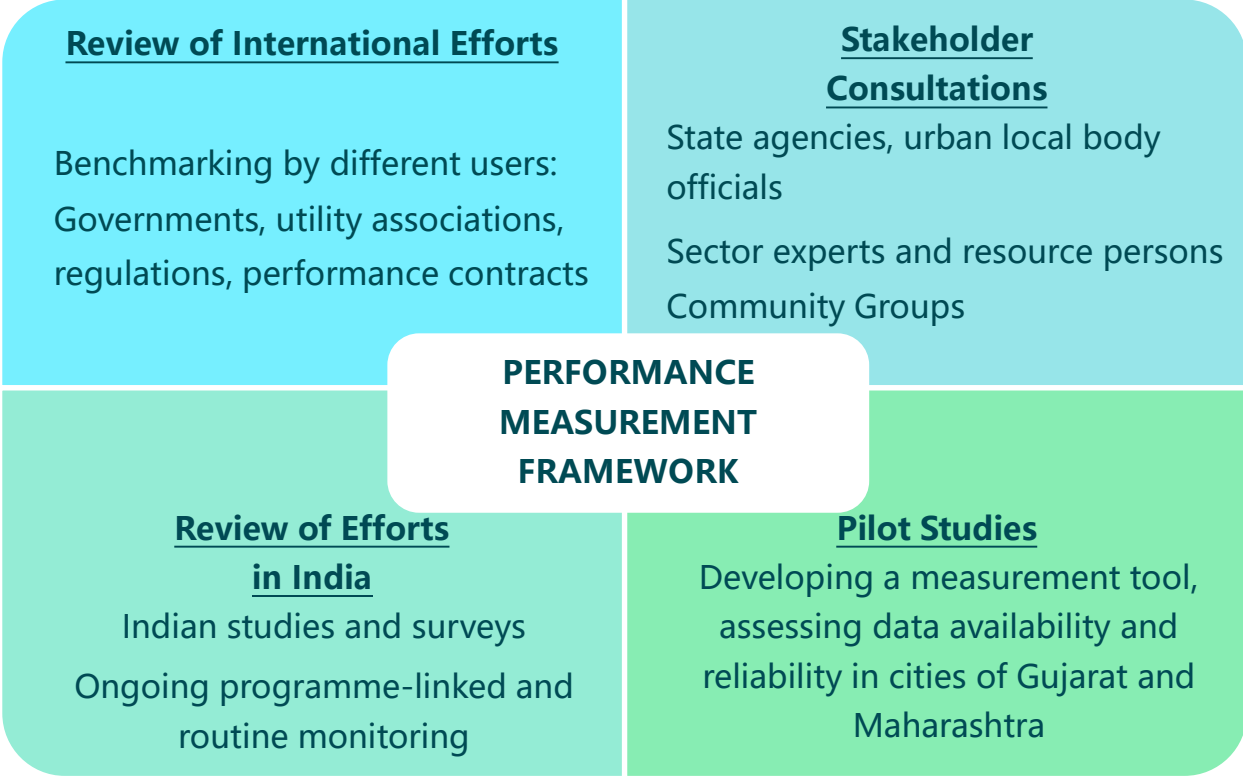
Interactive dashboard



Steps to interact with data at city level



2. Consultative process on approach and implementation

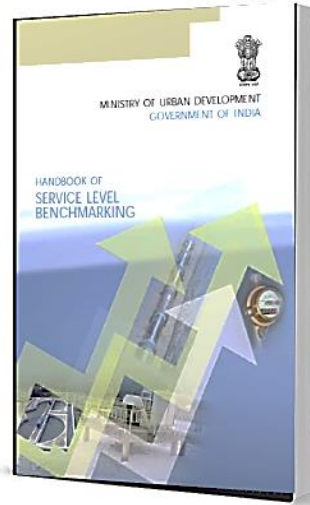


The process of performance measurement framework development and implementation has been consultative, involving engagement with state agencies, cities officials, sector experts, resource persons, and community groups

3. Government ownership and commitment

Working with all levels of government:

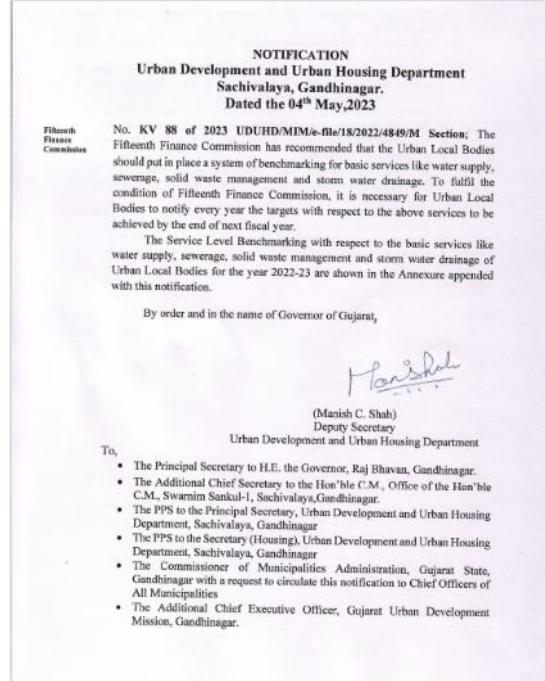
- a) the **central government** which funds various programmes, suggested key service outcomes,
- b) **state governments** regulate urban local bodies, and they both fund, and monitor services,
- c) **city level** where the urban local governments have the responsibility to both build infrastructure and deliver services as well as collect taxes and charges related to water and sanitation.



PAS was aligned to national service level benchmark initiative

- MoU with the Government of India for Regional Workshops for training across India
- MoUs with State governments for support to state and city governments for assembling and publishing their data through the PAS module
- Results published in State Gazette
- Support to various users and regulatory agencies of the government

4. Financial incentives for sustaining PAS - Institutionalized through intergovernmental fund transfers



- The 13th, 14th and 15th Finance Commission of the national government endorsed operationalizing of SLB Process. It linked national government grants to cities to service level benchmarks
- State Governments notify by the end of a fiscal year the service level benchmarks and targets and inform the Ministry of Housing and Urban Affairs

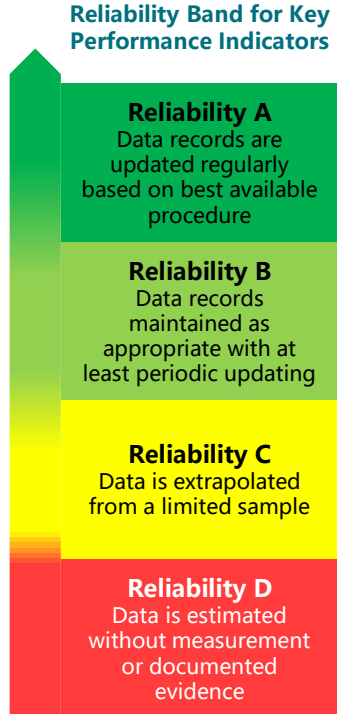
13th FC:
(FY 2010-15)
USD 2.8
Billion

14th FC:
(FY 2015- 20)
USD 10.9
Billion

15th FC:
(FY 2021-26)
USD 15.1
Billion

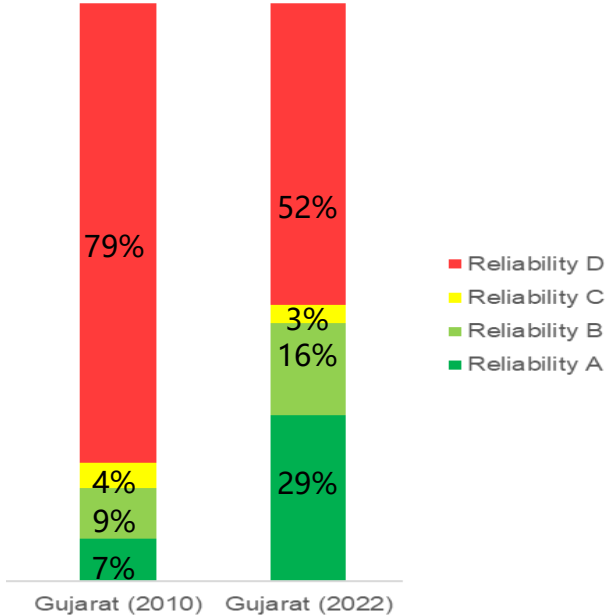
5. Gradual but consistent strengthening of data quality

Systematic Approach for Data Reliability Assessment

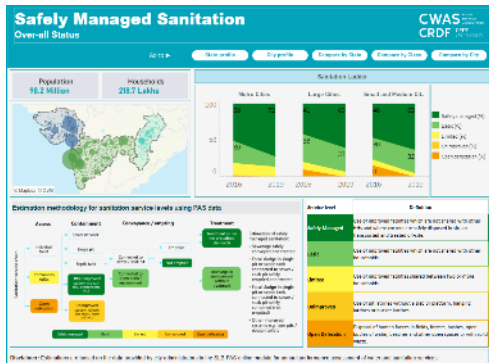


- Automatically calculates the reliability for an indicator with a set of questions that address the conditions in each reliability band as listed in the SLB Handbook.
- Ensures a transparent and consistent comparison across all cities.
- It also informs cities about the quality of their existing data systems, and encourages cities/state to focus on data system strengthening.

Over the past decade reliability of data is seen to be increasing



6. Enable information to be used for a variety of city level assessments

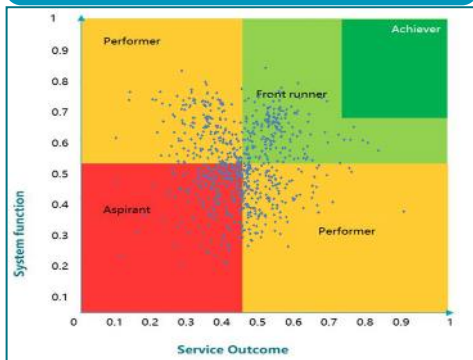


Monitoring safely managed services (SDG 6.2)

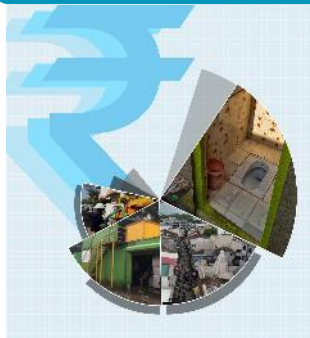
ESG assessment for cities



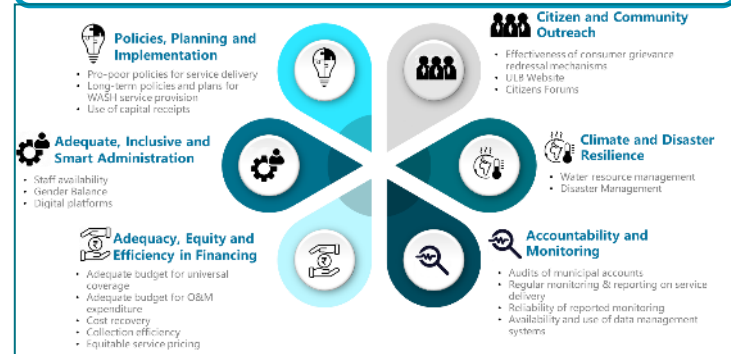
PAS-CWIS performance ladder



Credit worthiness of cities



Assessment of water governance

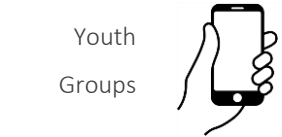


7. Capturing community feedback with IVR system



Civil society

Bring in citizen voices especially for the vulnerable population in slums.



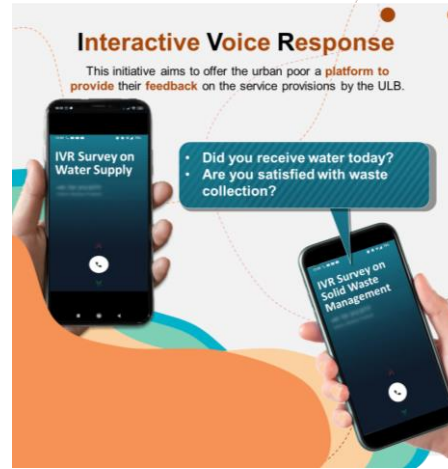
Youth Groups

Platform to enable citizen reporting on service indicators like coverage and quality – a *feedback platform*

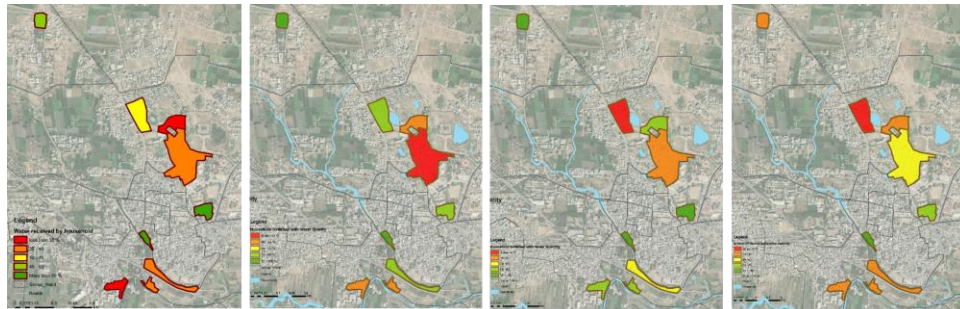


Women Self Help Groups

Feedback mechanism for local government: Performance improvement plan at local level to reduce disparities in service levels



Identifying slum wise issues of WASH services



Water received

Satisfied with water quality

Satisfied with water quantity

Availability of Waste collection vehicle

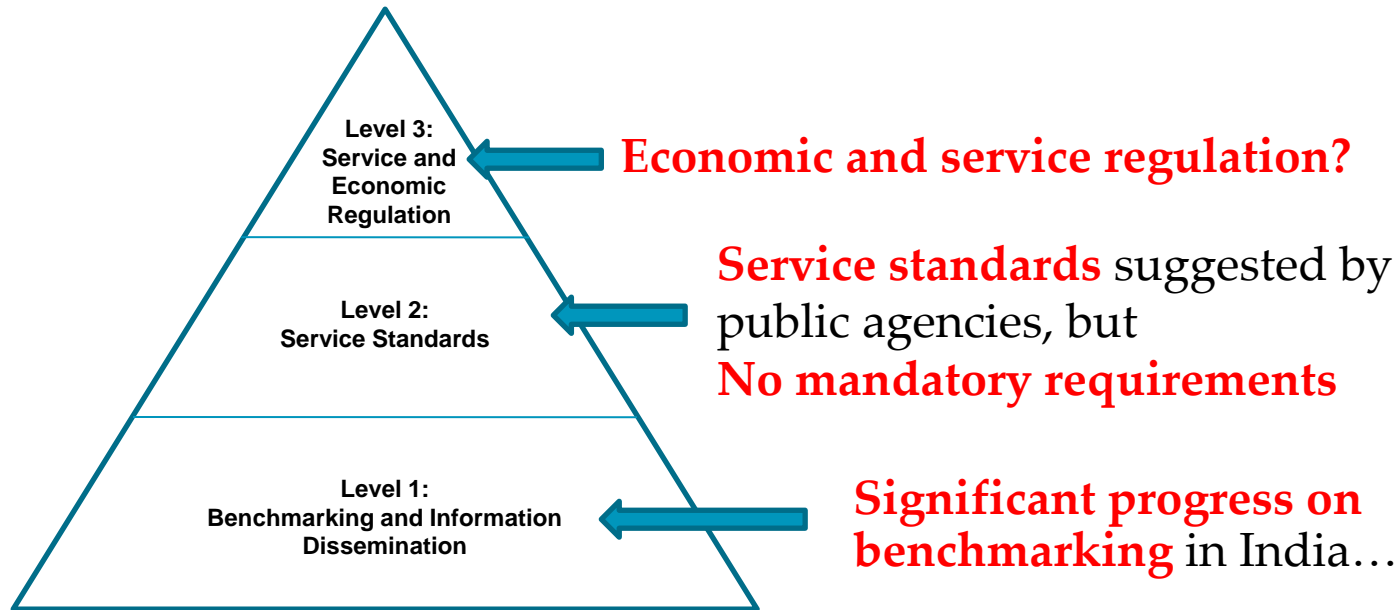
Success

- ULB meets with slums to enhance services
- Waste collection services made available as a quick solution – 4% rise in responses for satisfaction
- 5% to 9% increase in water received and satisfaction with water quantity responses

Challenges

- Difficult to implement where service delivery is irregular
- Fatigue in respondents due to frequent reporting
- Only one mobile in family - change in perception if responded by male/female alternatively
- Improving water quantity and changing water supply timing is difficult

The Ladder from Benchmarking to Regulation



Source: Adapted from PWC (2011), "Bringing Water to Your Doorstep: Urban water reforms for the next decade", Report for the Second Annual India -H2O Conference., p. 29

In Conclusion

- Scaling up benchmarking activities require patience. It takes time for consultative process with utilities/service providers for them to see value in it
- In a developing country context, it is necessary to have adequate funding for benchmarking activities.
- Government ownership is crucial. Linking benchmarking with financial incentives is necessary
- Need to have a versatile approach for varied uses
- Strengthening data systems for services is gradual, but needs to be a consistent process



Thank you

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About us

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.



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meeramehta@cept.ac.in
dineshmehta@cept.ac.in