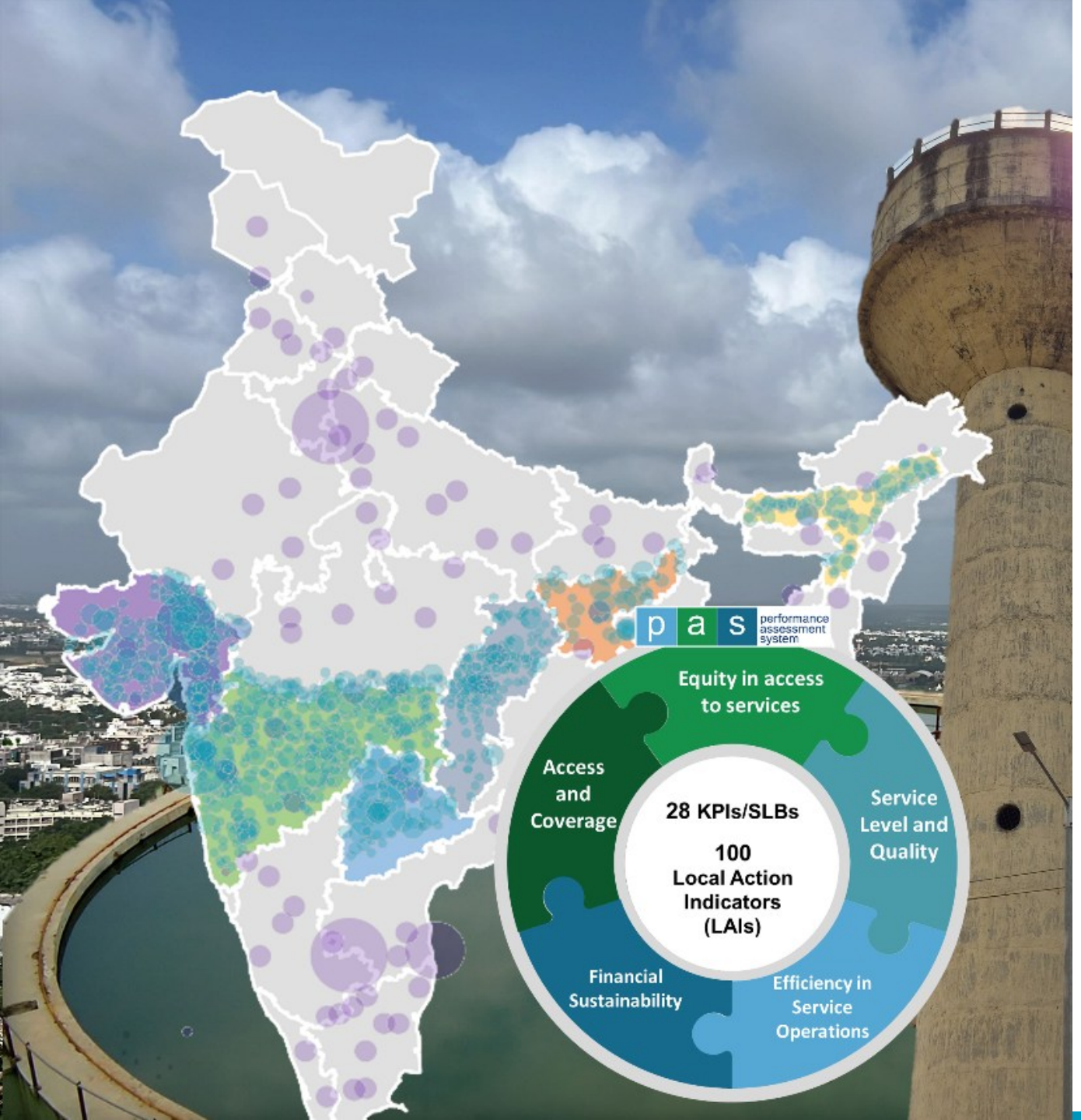


p a s @ 1 5

From measurement to improvement – Fifteen years of the Performance Assessment System Program in India

February 21, 2025

Global South Academic Conclave 2025 – WASH and Climate

Meera Mehta | Dinesh Mehta

Center for Water and Sanitation, CRDF, CEPT University

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

PAS was born out of a need for usable information and accountability in urban WASH

In 2005-2009
Major urban projects in India with substantial investments for infrastructure creation…

…but little was known about impact on service access and quality

Data available with cities… but paper based disaggregated, non-digital, and not reported

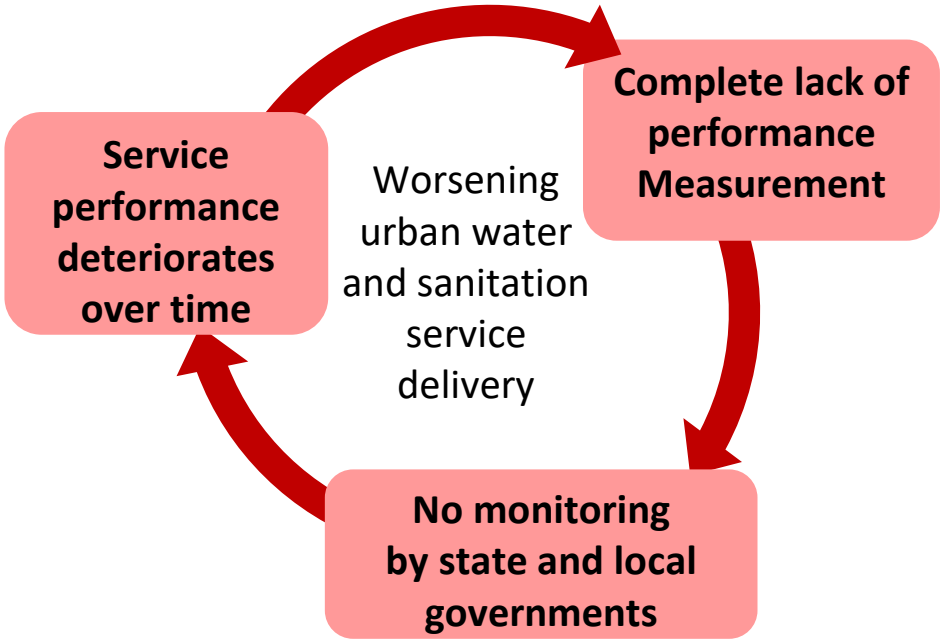
You cannot improve what you cannot measure!

pas performance assessment system

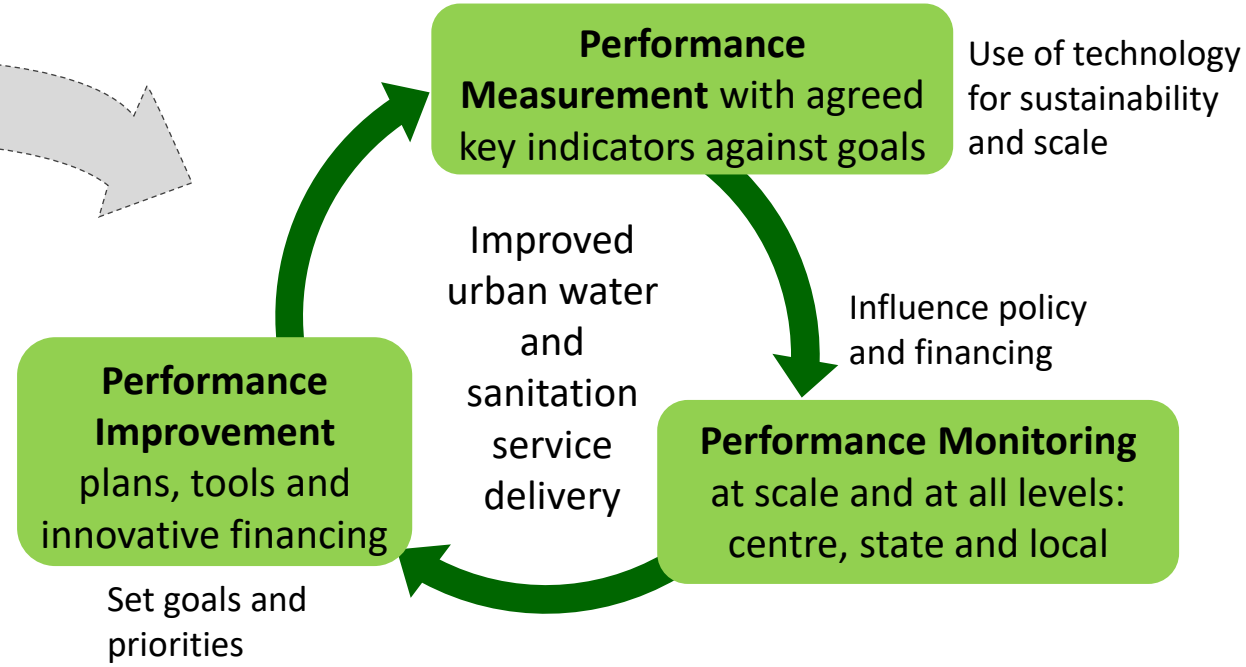
Our research through the Gates Foundation's first WASH grant in India aimed to measure and transform urban water and sanitation services

PAS approach – moving to a virtuous cycle

PAS intended to bring about a change in "laying pipes" to "improving services"



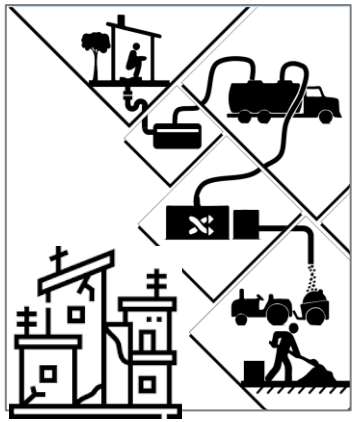
Measure and monitor performance to reward and learn from success and demonstrate results



PAS Indicators - Aligned with national SLB initiative

TOTAL	WATER SUPPLY	WASTEWATER	SOLID WASTE	EQUITY	STORM WATER
32 Key Indicators **100** Drill down Indicators	9 SLB Indicators; 35 Drill down Indicators	9 + 6 SLB Indicators + SAN Benchmarks; 32 Drill down Indicators	8 SLB Indicators; 12 Drill down Indicators	4 Key Indicators; 15 Drill down Indicators	2 SLB Indicators

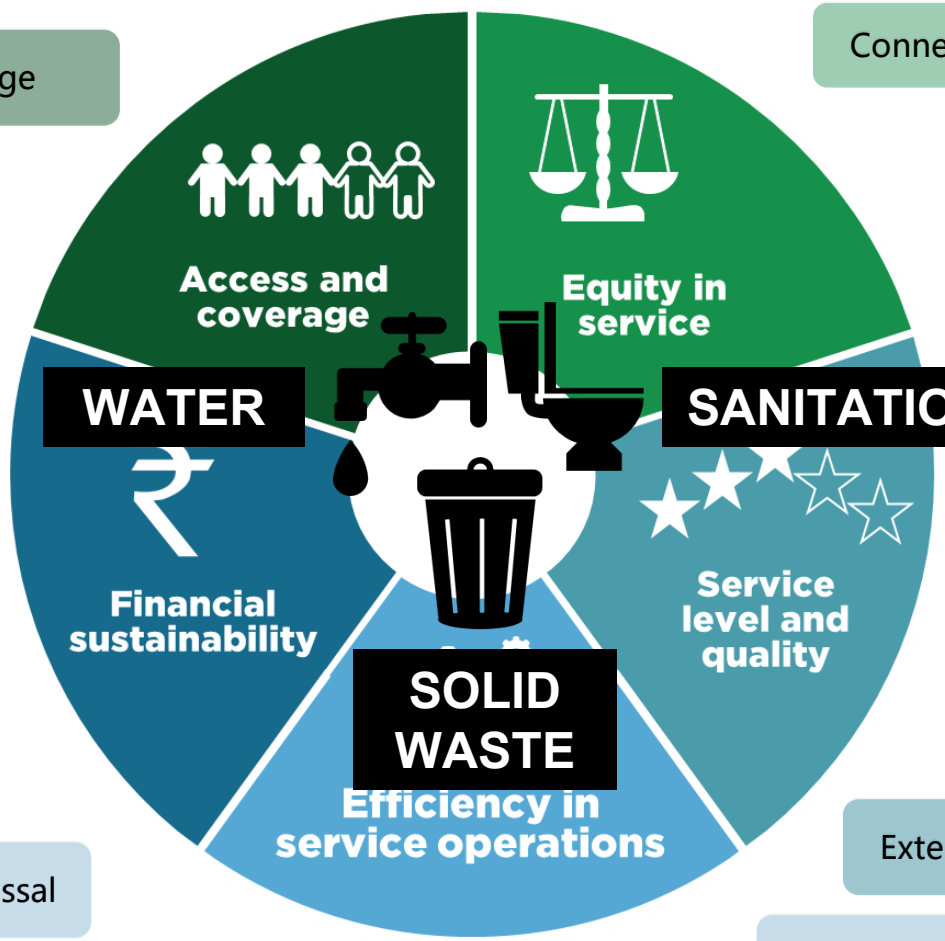
Aligned with national SLB initiative



Framework suited to local context

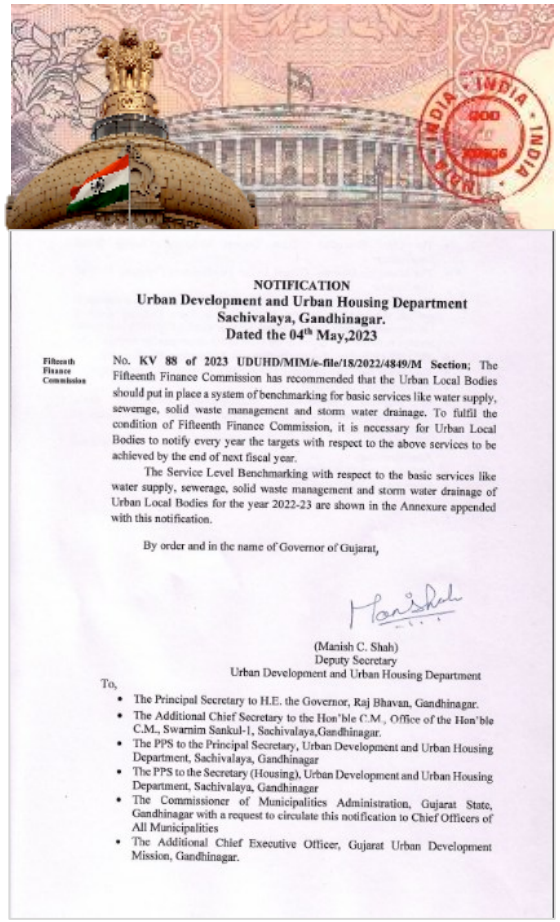
Added lens of equity, slums and on-site sanitation

PAS framework – key themes, indicators and data points for WASH



- Access to toilets
- Network/service coverage
- Door to door collection for solid waste
- Cost recovery
- User charge collection efficiency
- Property tax
- Tariff structure
- Complaint redressal
- Metering
- Treatment quality
- Toilets, network/services in slums
- Connection charges for slum
- % funds for pro-poor
- Mandate for gender budgeting
- Treatment capacity
- Collection efficiency of sanitation system
- Per capita supply of water
- Extent of segregation of solid waste
- Extent of reuse

Financial incentives for sustaining PAS Institutionalized through intergovernmental fund transfers



NOTIFICATION
Urban Development and Urban Housing Department
Sachivalaya, Gandhinagar.
Dated the 04th May,2023

Fifteenth Finance Commission

No. KV 88 of 2023 UDUHD/MIM/e-file/18/2022/4849/M Section: The Fifteenth Finance Commission has recommended that the Urban Local Bodies should put in place a system of benchmarking for basic services like water supply, sewerage, solid waste management and storm water drainage. To fulfil the condition of Fifteenth Finance Commission, it is necessary for Urban Local Bodies to notify every year the targets with respect to the above services to be achieved by the end of next fiscal year.

The Service Level Benchmarking with respect to the basic services like water supply, sewerage, solid waste management and storm water drainage of Urban Local Bodies for the year 2022-23 are shown in the Annexure appended with this notification.

By order and in the name of Governor of Gujarat,

(Manish C. Shah)
Deputy Secretary
Urban Development and Urban Housing Department

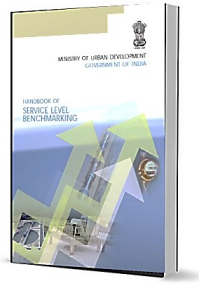
To,

- The Principal Secretary to H.E. the Governor, Raj Bhavan, Gandhinagar.
- The Additional Chief Secretary to the Hon'ble C.M., Office of the Hon'ble C.M., Swarnim Sankul-1, Sachivalaya,Gandhinagar.
- The PPS to the Principal Secretary, Urban Development and Urban Housing Department, Sachivalaya, Gandhinagar
- The PPS to the Secretary (Housing), Urban Development and Urban Housing Department, Sachivalaya, Gandhinagar
- The Commissioner of Municipalities Administration, Gujarat State, Gandhinagar with a request to circulate this notification to Chief Officers of All Municipalities
- The Additional Chief Executive Officer, Gujarat Urban Development Mission, Gandhinagar.

- **The 13th, 14th and 15th Finance Commission endorsed operationalizing of SLB Process. It introduced a performance-based grant**
- State Government must notify or cause all ULBs to notify by the end of a fiscal year the service standards and targets
- A notification must be published in the state gazette to ensure compliance

13th FC:	14th FC:	15th FC:
~10 Billion USD	**~10.5 Billion USD**	**~14 billion USD**
35% performance grant	**20% performance grant**	**performance linked grants**

Government ownership and commitment for PAS

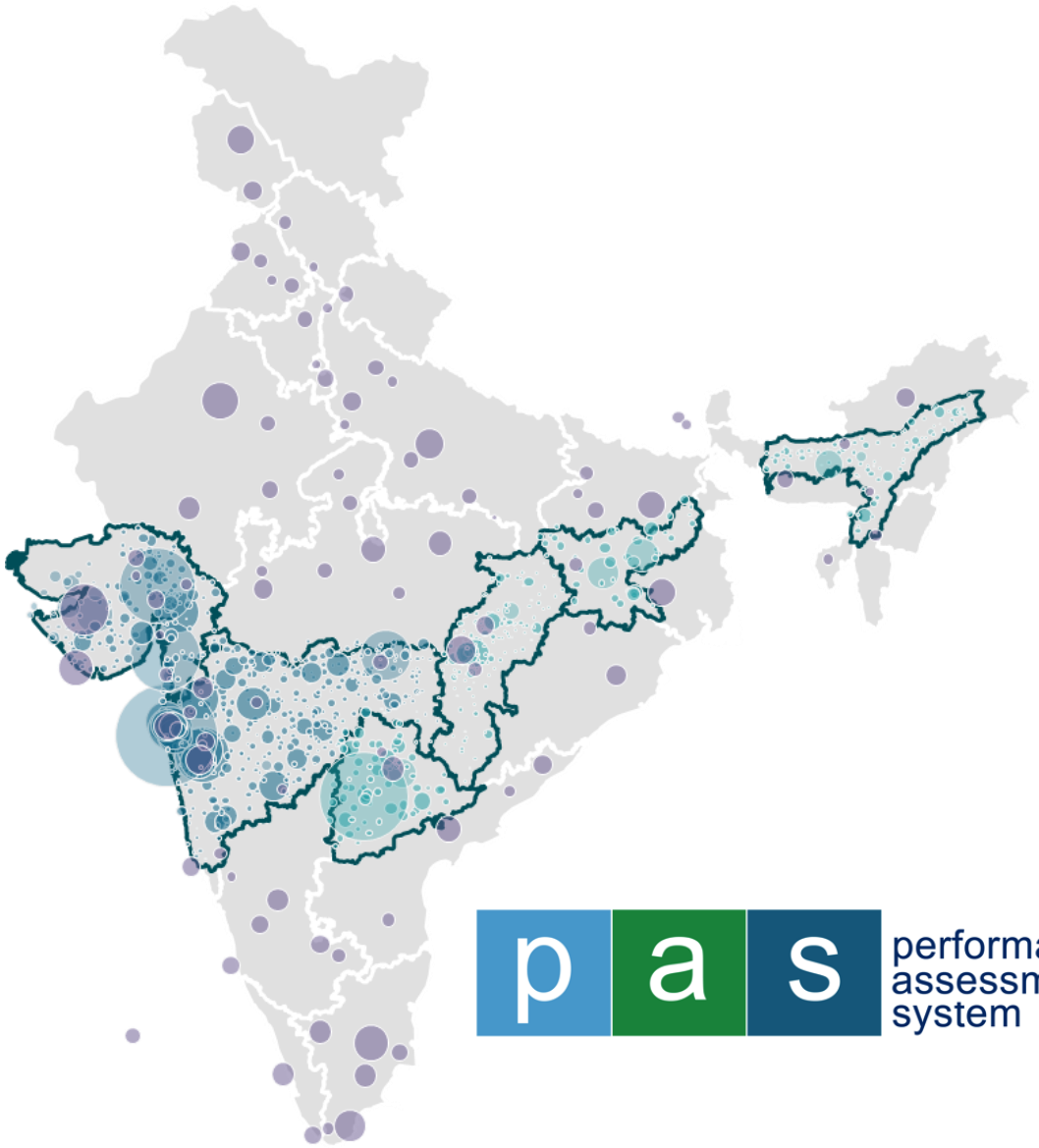


PAS aligned to national service level benchmark initiative

National technical partner for capacity building

MoUs with states governments for support in assembling and publishing their data in Gazette

Achieving scale in India - Since 2009, sustained and growing



pas performance assessment system

2009 – 414 cities

67 M population

Development of PAS-SLB module for the usage in Gujarat and Maharashtra state

2014 – 469 cities

79 M population

Ministry of Urban Development, GOI endorses PAS online tools Replication in Chhatisgarh

2016 – 904 cities

111 M population

Replication of PAS online tool in Telangana, Jharkhand and Assam

2020 – 871 cities

117 M population

Replication of PAS online tool in 100 SMART cities

2022 – 804 cities

115 M population

Linked with City Finance Portal of Government of India

2025 – 809* cities

116 M population

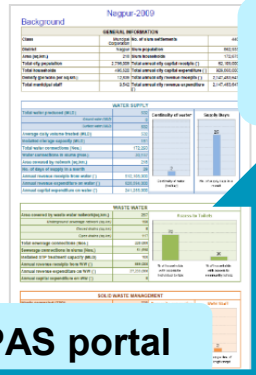
*Replication of PAS online tool in Sikkim is in progress

Journey from paper-based system to digital Enabled through a digital platform

Raw data available with cities

Industry-academic partnership for web portal

- Inbuilt validation checks
- Scientific system for calculating indicators
- Supporting local languages



City and State profiles

Performance Measurement with indicators on PAS portal

Training

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

Data collection

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

Data validation

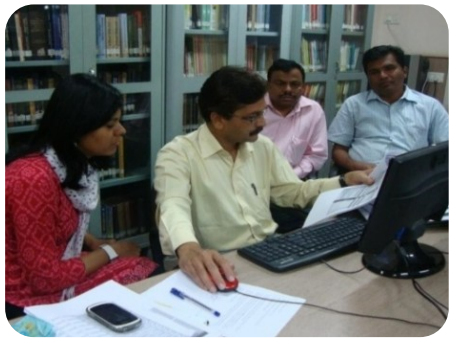
- Inbuilt validation rules during data entry and at submission
- After submission, 'sector experts' appointed by state government will do desk validation

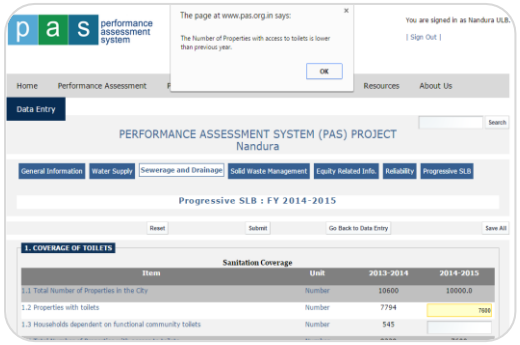
Results publication

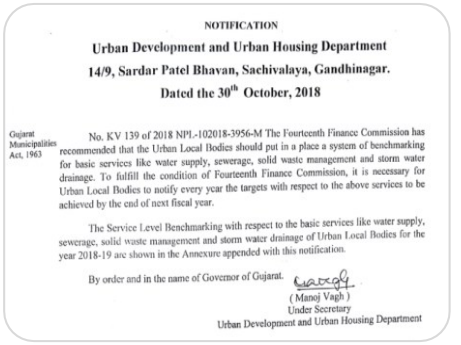
- SLB Gazette publication by state
- Analysis results published on website

Data verification

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







NOTIFICATION

Urban Development and Urban Housing Department

14/9, Sardar Patel Bhavan, Sachivalaya, Gandhinagar.

Dated the 30th October, 2018

Gujarat Municipalities Act, 1963

No. KV 139 of 2018 NPL-102018-3956-M The Fourteenth Finance Commission has recommended that the Urban Local Bodies should put in a place a system of benchmarking for basic services like water supply, sewerage, solid waste management and storm water drainage. To fulfill the condition of Fourteenth Finance Commission, it is necessary for Urban Local Bodies to notify every year the targets with respect to the above services to be achieved by the end of next fiscal year.

The Service Level Benchmarking with respect to the basic services like water supply, sewerage, solid waste management and storm water drainage of Urban Local Bodies for the year 2018-19 are shown in the Annexure appended with this notification.

By order and in the name of Governor of Gujarat,

(Manoj Vagh)
Under Secretary
Urban Development and Urban Housing Department

Training and building capacity of stakeholders

PAS Insights → **Tools, training modules, resource materials,** → **Action Research Projects** → **Scaling lessons from city to state, national global level …**

15,000+

City officials trained for using SLB-PAS online module over 15 years

2,500+

City officials, sector professionals and students trained on use of tools

- ✓ Target Setting model, Tariff Setting model
- ✓ SaniPlan –Improvement Planning
- ✓ IFSM Toolkit , PSP toolkit
- ✓ ODF City Model
- ✓ SaniTab, SaniTrack, SaniChatBot
- ✓ Urban Water Security Toolkit

3,500+

Local government officials, parastatals, ATIs, academics, elected representatives and other sector professionals trained on thematic areas

- ✓ Municipal water management, 24X7, NRW
- ✓ Drinking water security, Rain water harvesting and Groundwater management
- ✓ City Sanitation, FSSM and private Sector Participation, CWIS
- ✓ Innovative finance for urban services
- ✓ Equitable services in slums
- ✓ Information System improvement Planning
- ✓ Energy Transition and Climate change

2,500+

City officials trained under Swachh Bharat Mission, AMRUT, SMART cities and SBM-NULM convergence

1,700+ City officials trained as Swachhta Knowledge Partner in Gujarat

650+ Capacity building of Sanitation Workers

500+ Professionals trained form other countries

Gradual but consistent strengthening of data quality

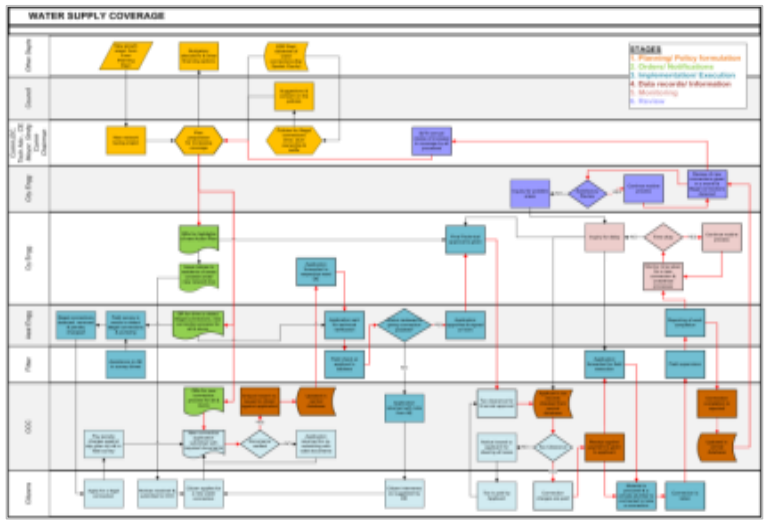
The performance measurement is only as reliable for meaningful management decisions as the systems that generate the data to compute the performance.

Reliability A: Data records are updated regularly based on best available procedure

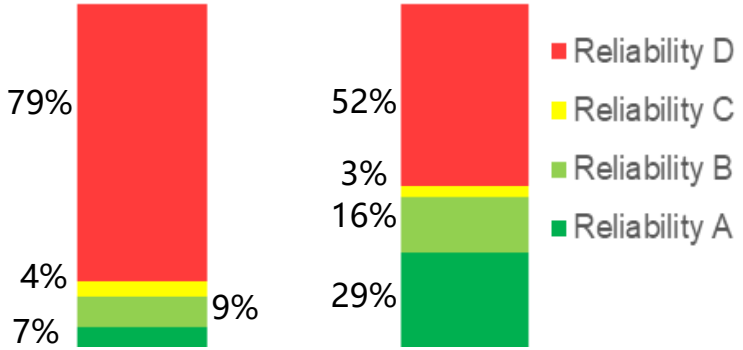
Reliability B: Data records maintained as appropriate with at least periodic updating

Reliability C: Data is extrapolated from a limited sample

Reliability D: Data is estimated without measurement or documented evidence

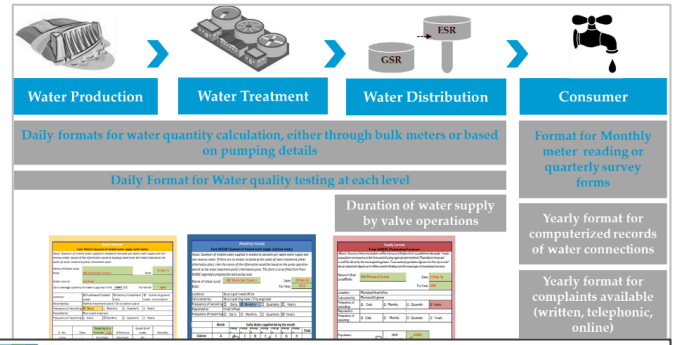


Standardised reliability assessment for key performance indicators in online SLB-PAS module

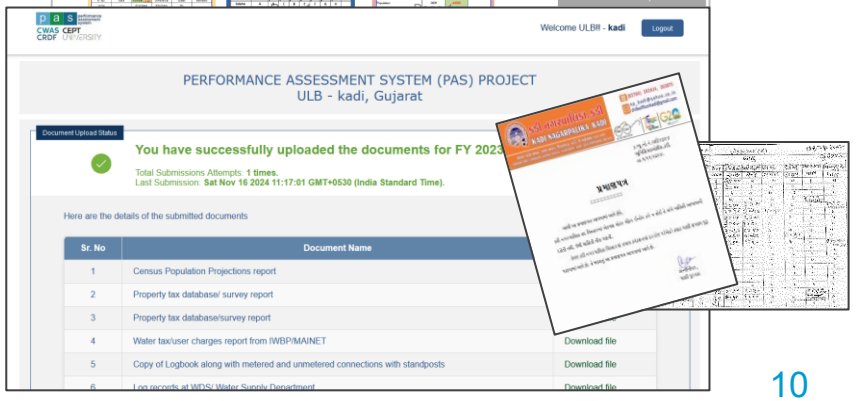


Over the past decade reliability of data is seen to be increasing

Develop methods and tools to improve reliability of key performance indicators

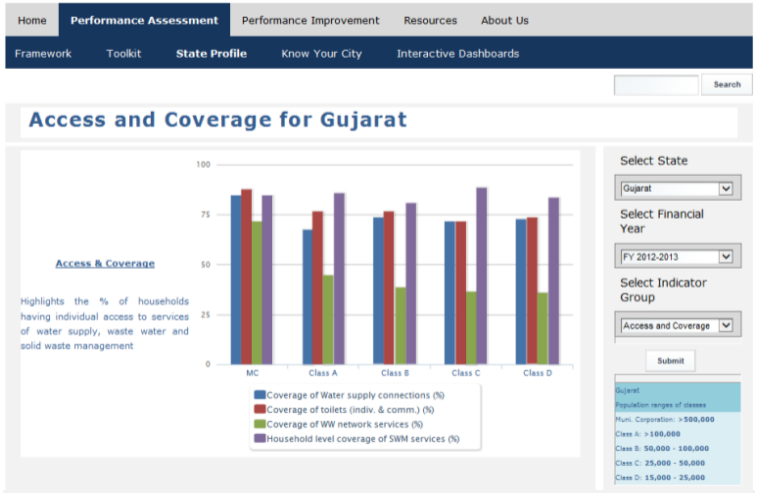


Support to selected cities for preparation of information system improvement plans and in e-governance

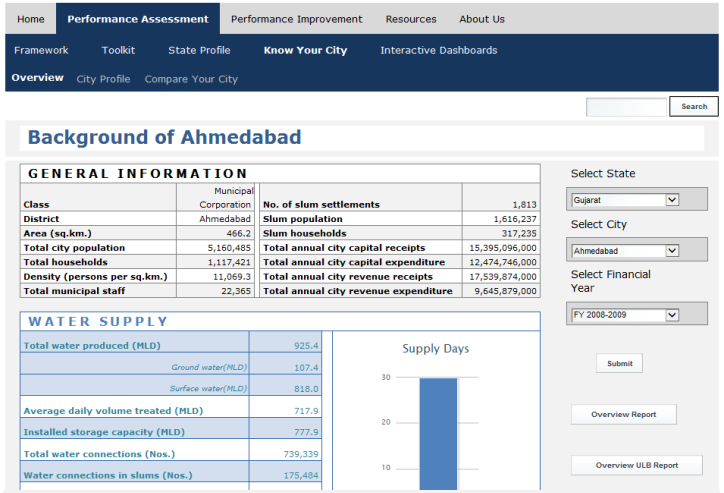


Enabling upload of documents supporting validity of data filled on portal

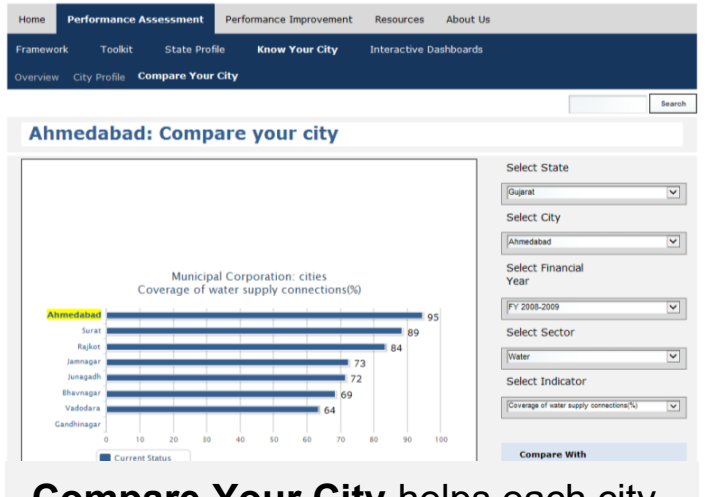
Various dashboards



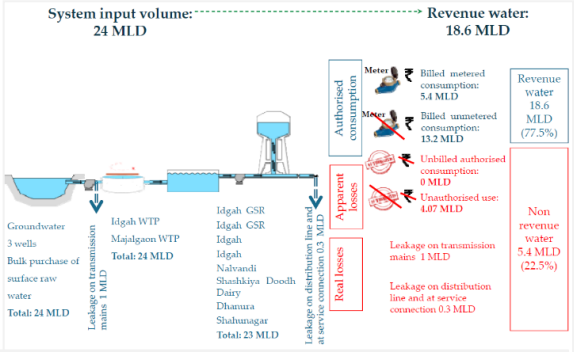
Option to view **year wise** information



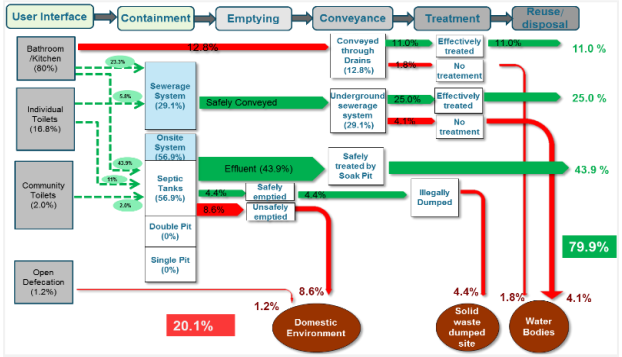
Overview of the city provides general information across all the sectors



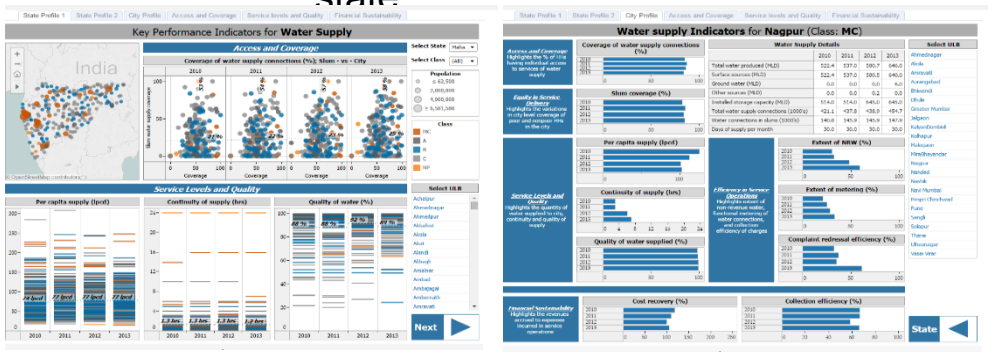
Compare Your City helps each city compare itself with another city based on its respective class or state



Water supply schematic diagram

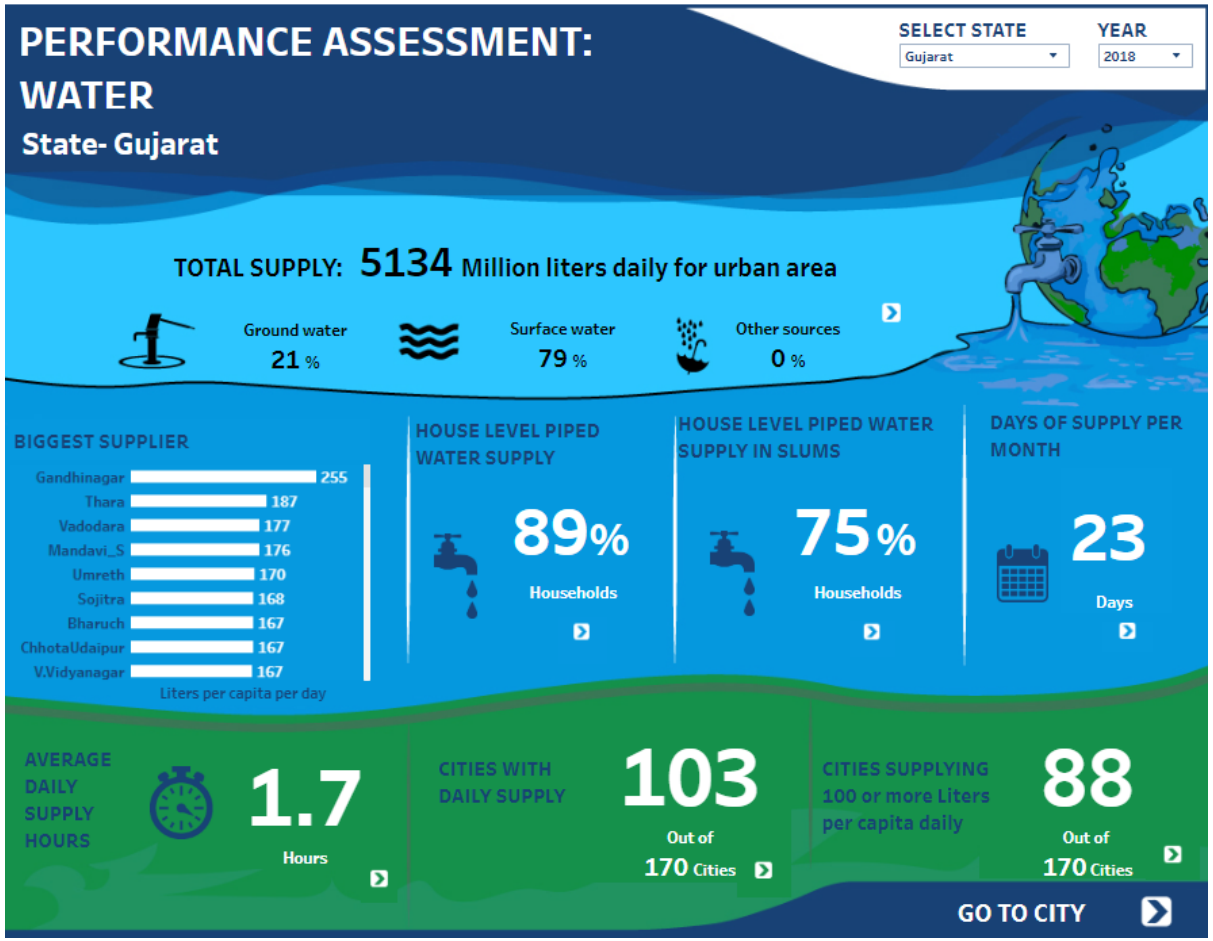


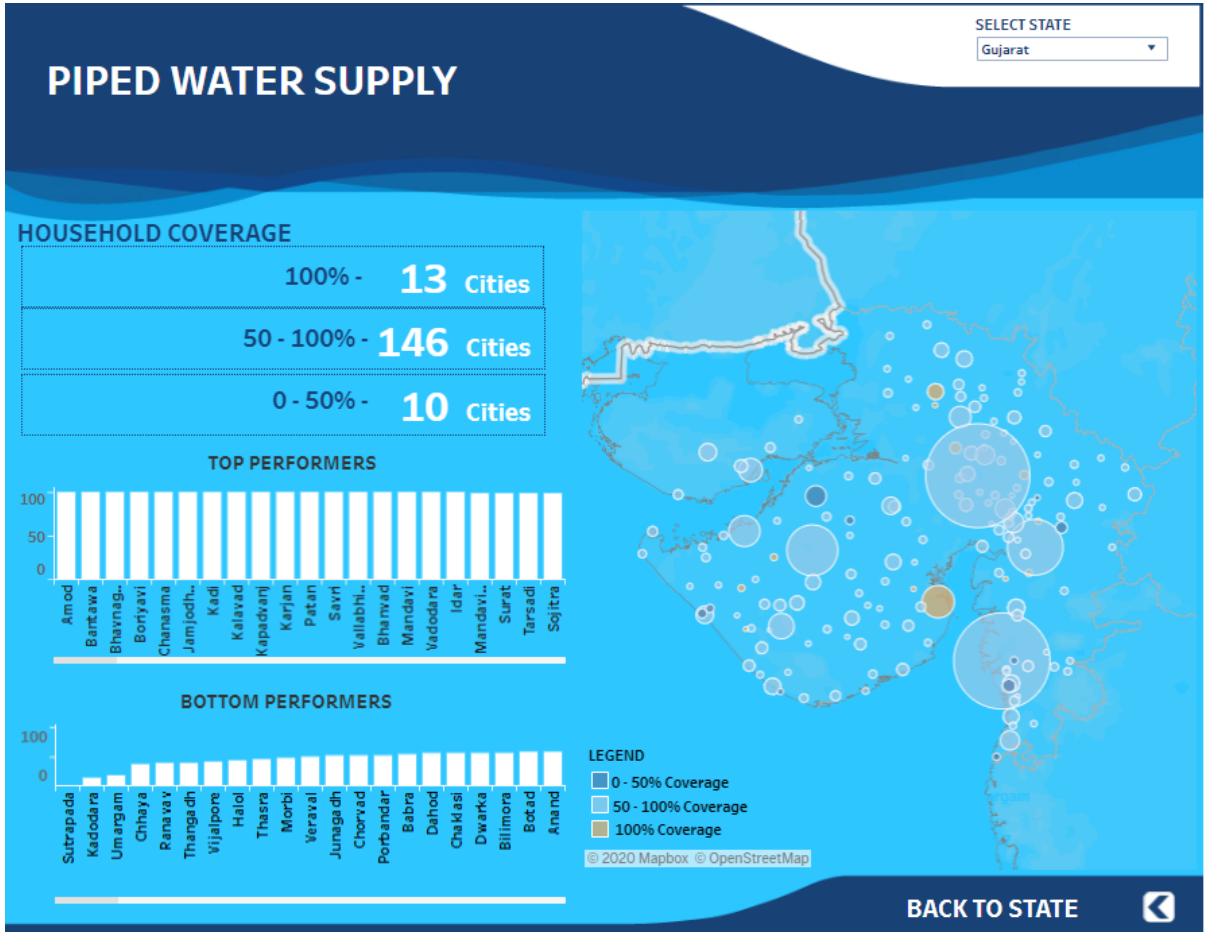
Wastewater diagram



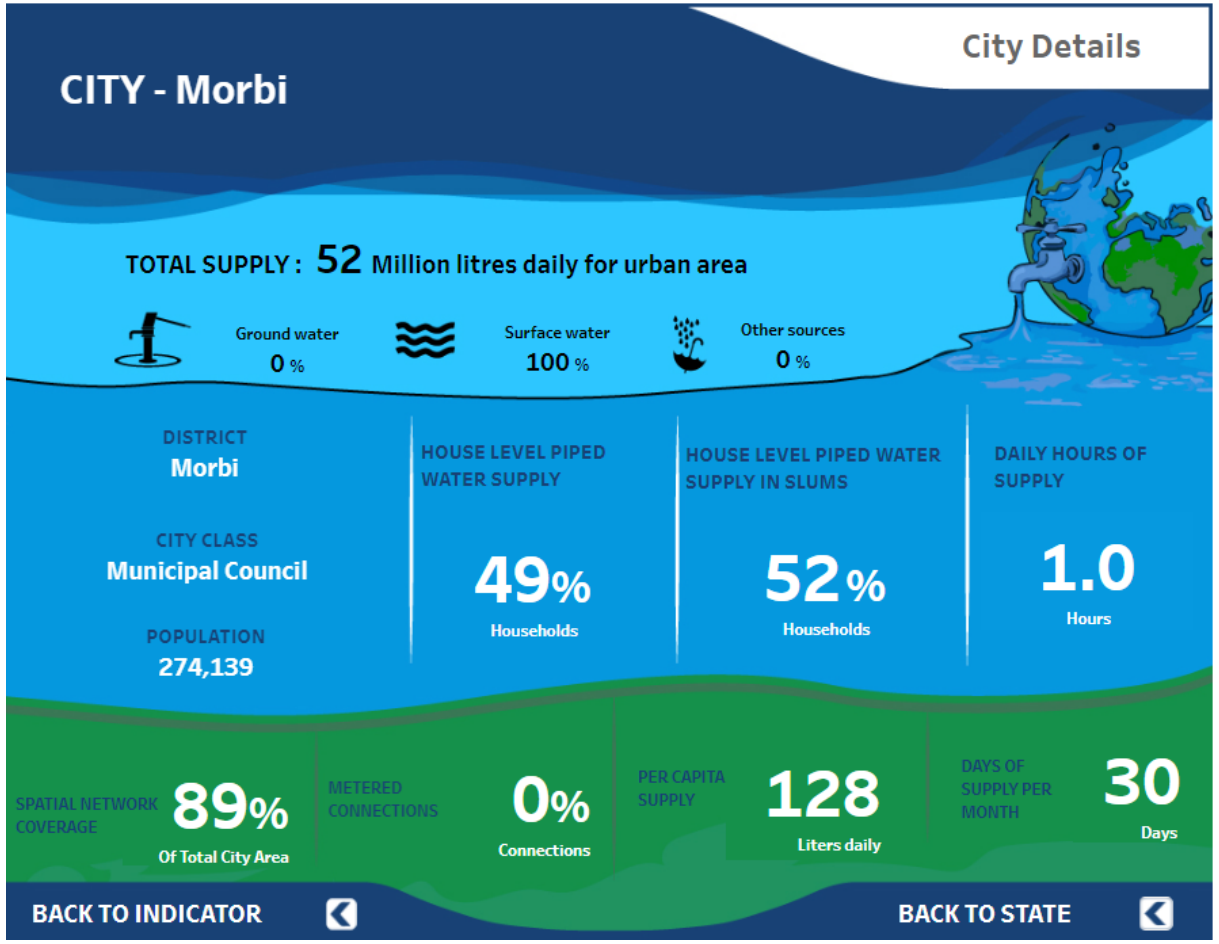
Interactive dashboards

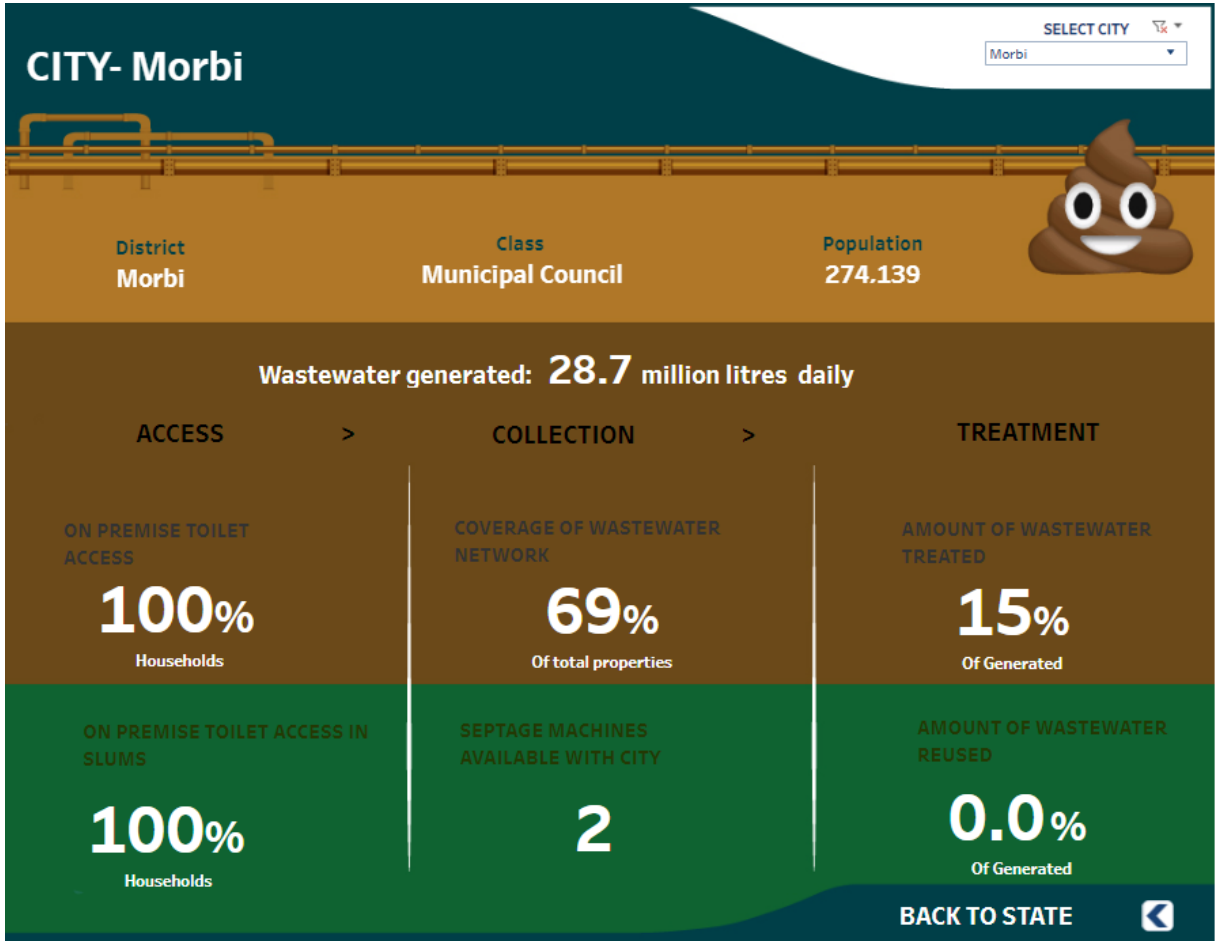
Interactive dashboards: State





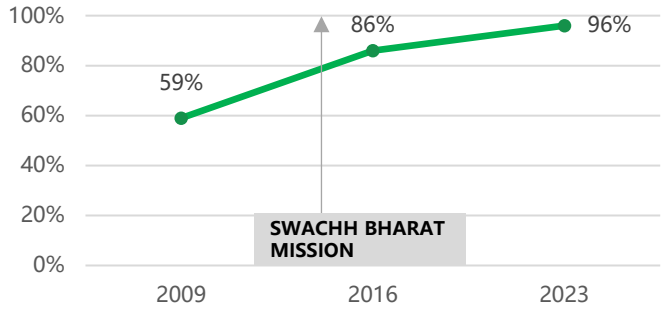
Interactive dashboards: City



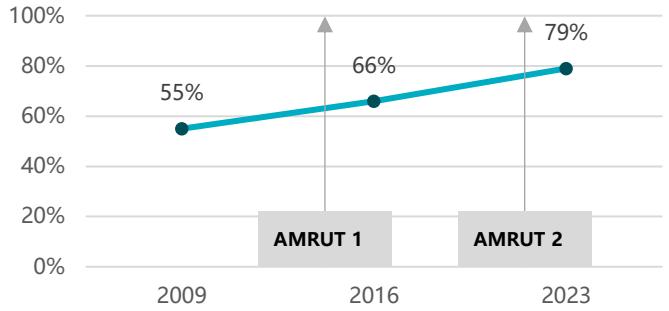


PAS@15 - From no data on services to “seeing” the improvement

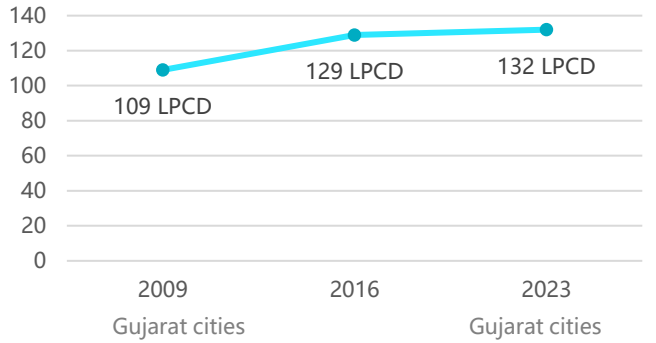
SBM and improvement in coverage of individual household toilets



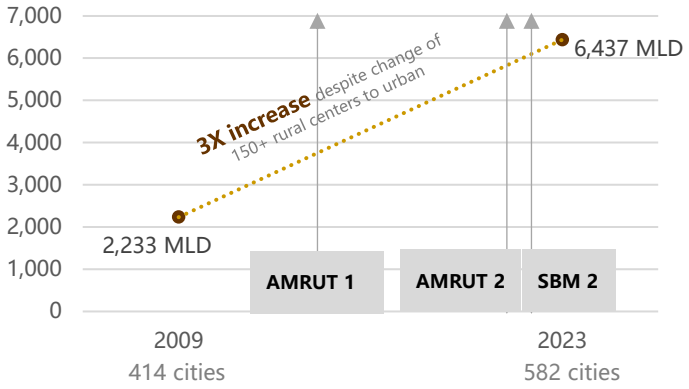
AMRUT and impact of “Har Ghar Jal” on coverage of water supply



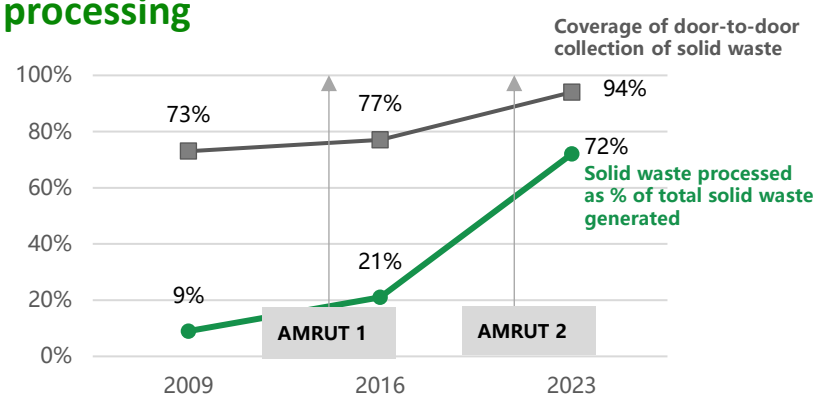
Impact of Sardar Sarovar Dam and Narmada network on water supply quantity in Gujarat cities (litres per capita per day)



Impact of AMRUT and SBM on treatment infrastructure - MLD wastewater treated at secondary STP in Gujarat and Maharashtra



SBM and AMRUT – Impact of “Garbage Free Cities” on solid waste collection and processing



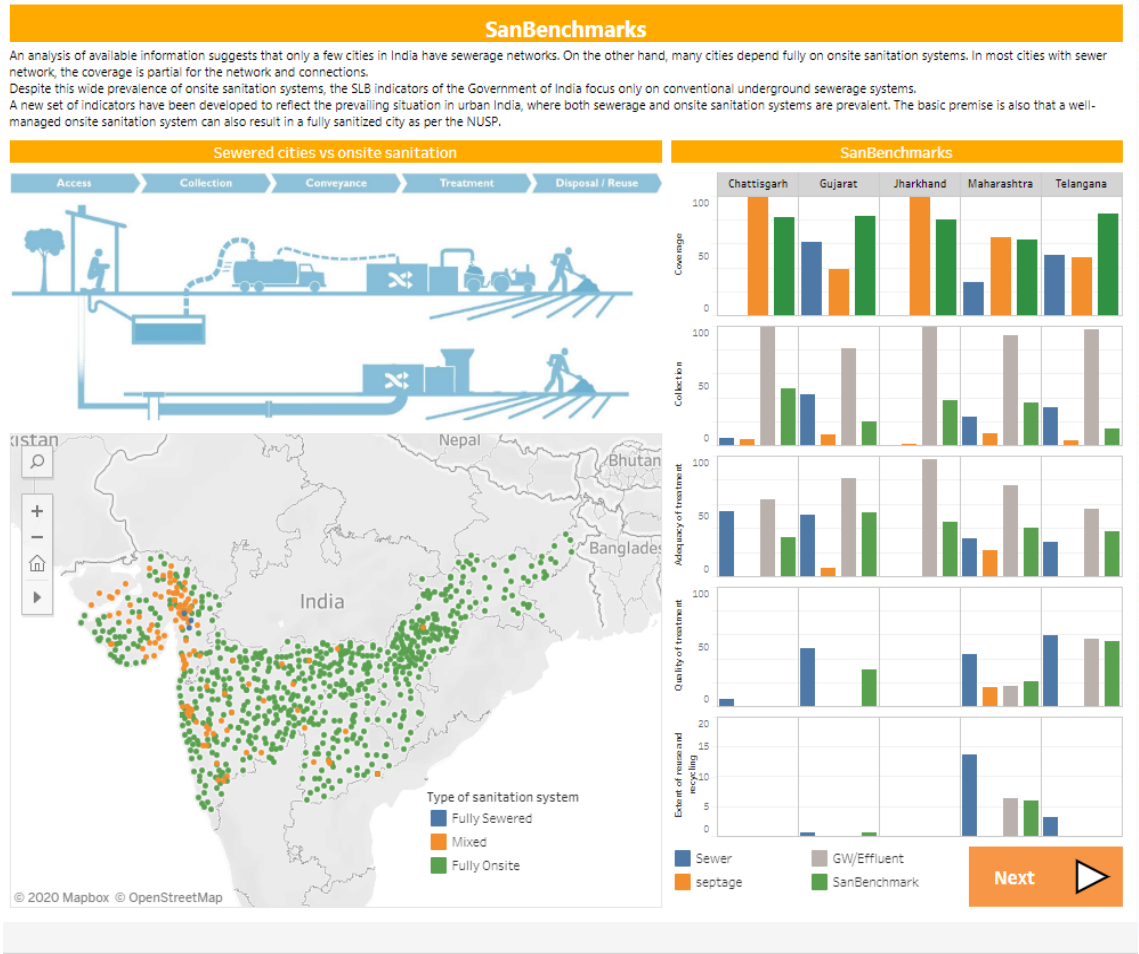
The next targets for India?

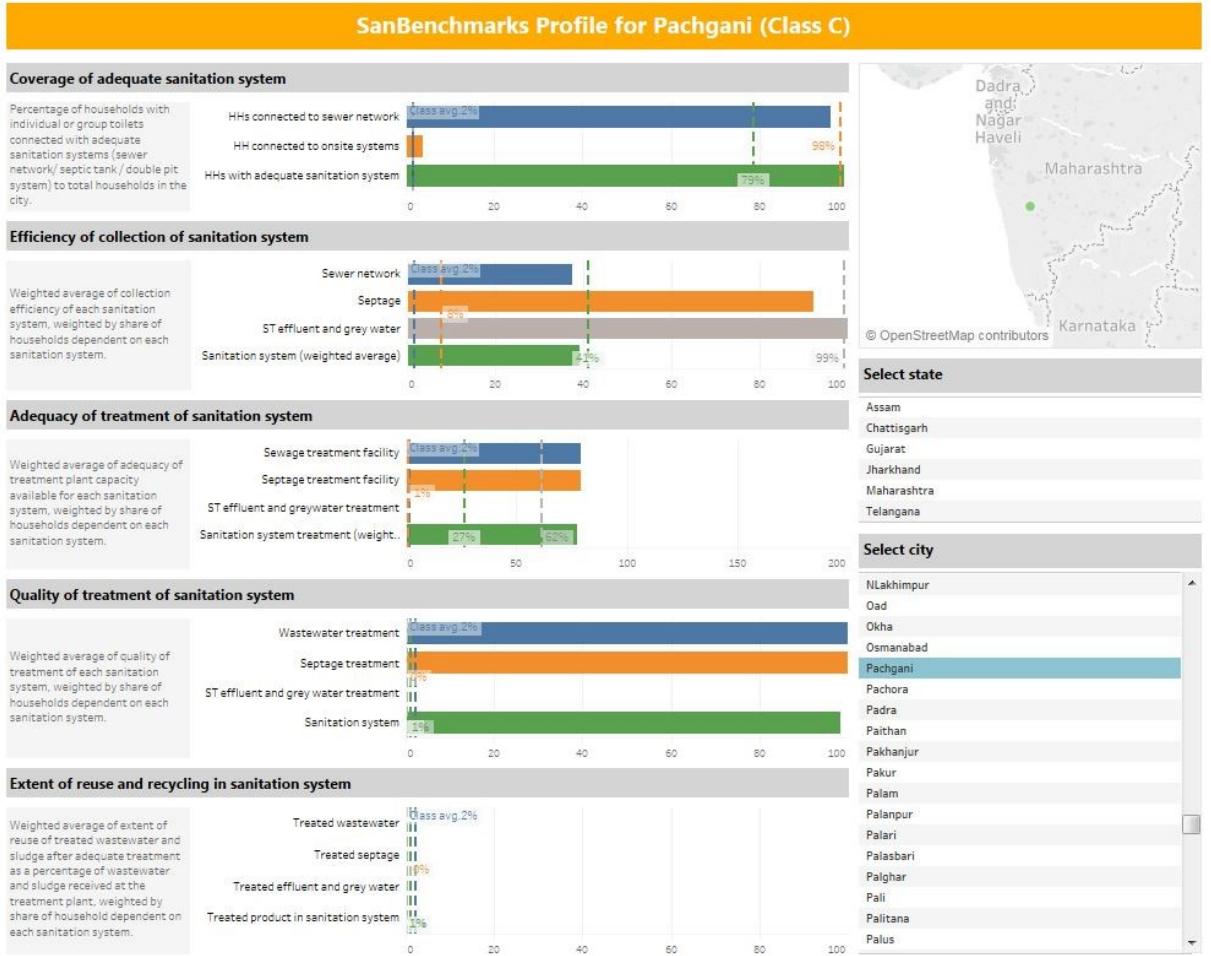
Further focus needed on Data Systems Strengthening and Service Efficiency

- Water metering still at 3%
- Non-Revenue water still “guesstimated” in the range of 30-40%
- Sewerage connections (although improved at 54%) need to catch up to water supply!

Data from PAS states Gujarat, Maharashtra, Chhattisgarh and Jharkhand between 2009 – 2023
Number of cities - 414 (2009) to 802 (2023) | Population coverage - 67.0 million (2009) to 115.8 million (2023)

SAN Benchmarks: State and City Dashboards

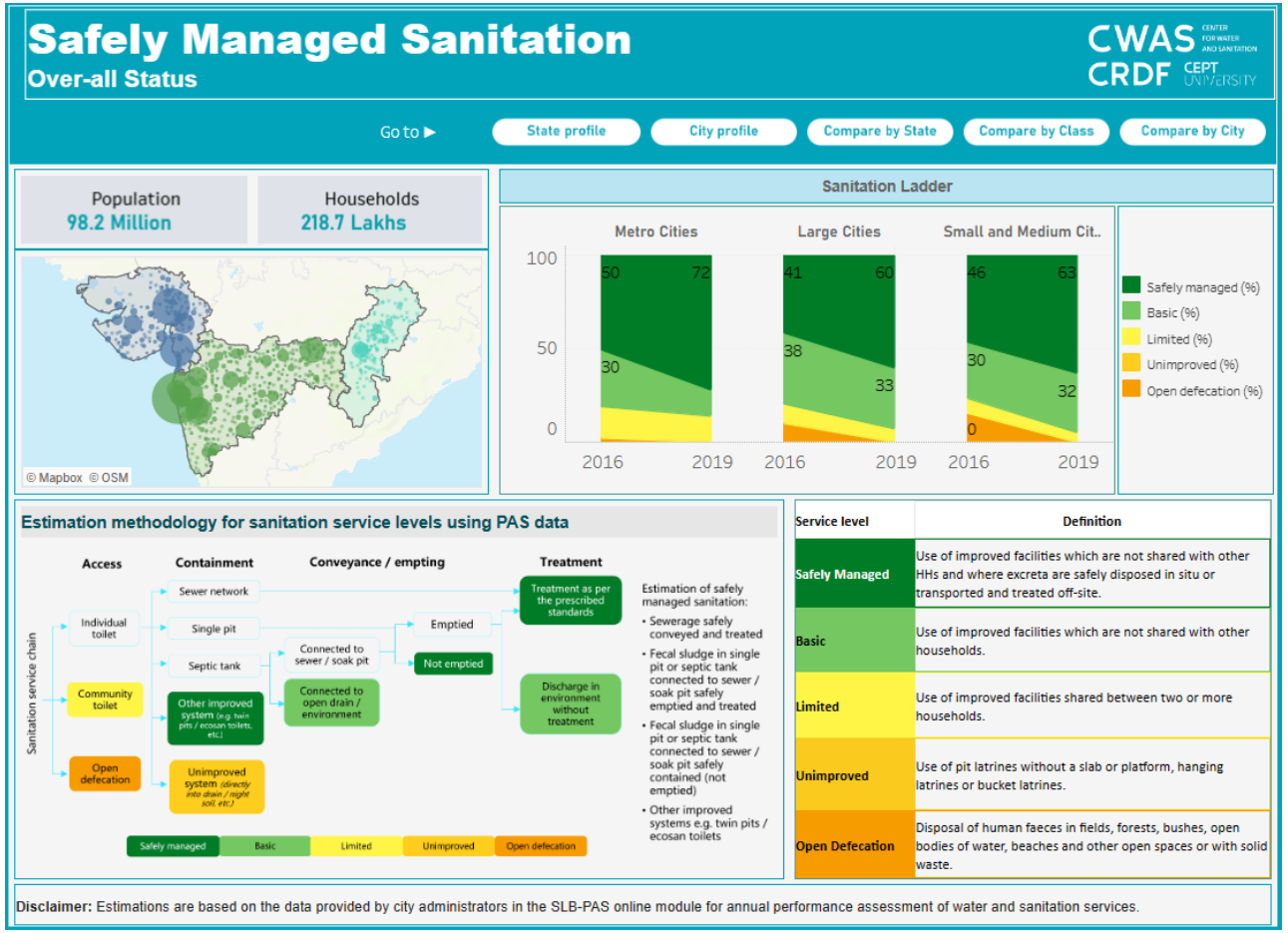




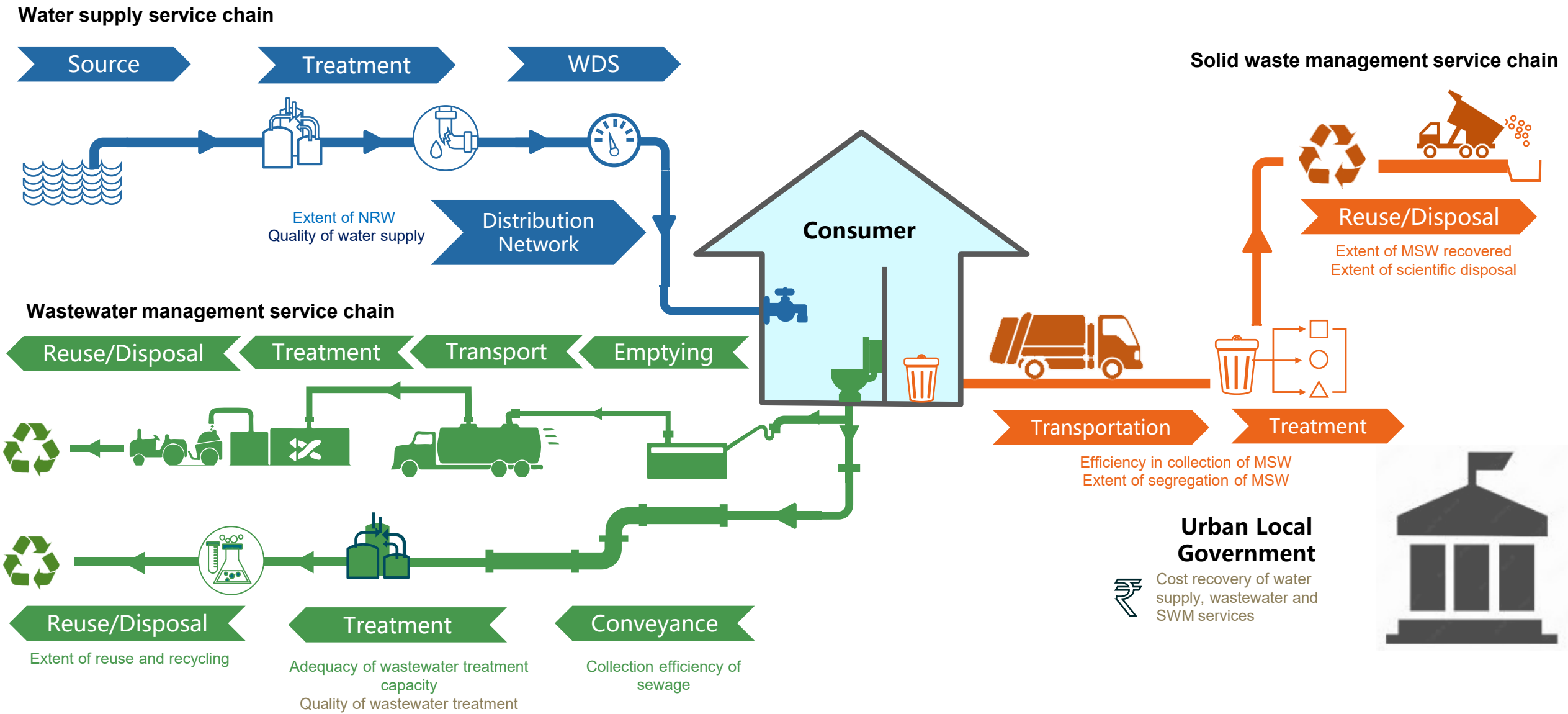
a) Interactive dashboard page of PAS website https://pas.org.in/web/ceptpas/interactivedashboards
Select the second last dashboard on this page "Sanitation assessment through SanBenchmarks (2017)"
b) Direct link to Dashboard on Tableau public
https://public.tableau.com/profile/pas.india#!/vizhome/SanBenchmarksv2/CompareStates

Monitoring SDGs at local level

- Estimation of SDGs at local level is necessary to analyzed the existing gaps and accordingly identify the improvement actions at city and state level to achieve the targets.
- Based on the PAS database, methodology of estimation of safely managed sanitation using PAS data has been prepared.
- Safely managed sanitation of 700+ cities of Maharashtra, Gujarat and Chhattisgarh states has been estimated.
- Interactive dashboard shows results at state, class and city level. It enables comparison between cities, improvements over time and suggest actions at city level to achieve 100% safely managed sanitation services.



System integration - Water and Sanitation Data System Analysis across the service chain



Use and recognition from a range of stakeholders

Government agencies

National, state and local governments have used PAS for various policy interventions and improvement actions

Gujarat: Guidelines for ODF; Assess impact of capital investment on service level improvement in sewerage system; State of environment report, 2012.

Maharashtra: State level strategy for making cities ODF; Septage management guidelines; Policy guidelines SWM.

Chhattisgarh: Impact assessment of SWM. Prepared investment plan for water

City Level: To prepare service level improvement plans in more than 30 ULBs

Regulators

To assess regulatory compliance

CAG -Performance audit of delivery of three basic civic services for selected ULBs in Gujarat and Maharashtra.

Researchers

Data used by academicians and students

Many academicians and students of planning or technology colleges have used this information for research purpose

Use and applications of the data on the PAS Platform

Accessing inter-governmental grants

PAS data for publishing in Gazette and in filling data on City Finance Portal in compliance with 13/14/15 FC

Swachh Maharashtra Mission

SLB-PAS data for support in policy-guidance, programme strategy, monitoring and compliance

National Regulatory Compliance

CAG used PAS information to conduct performance audits in Maharashtra

MoHUA endorsed study by Safe Water Network, which utilized PAS for City Water Index.

Global Policy

Inputs in post-2015 deliberations on JMP-WASH and UN Wastewater Group

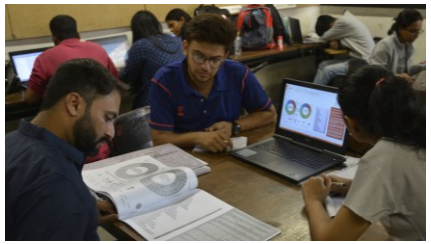
Unlocking investments and project formulation

ADB and World Bank used PAS data for project identification.

Consultants used PAS data in assignments like City Development Plans

Independent Research

PAS data regularly used by academicians and students of planning and technology colleges



Not just measurement …
PAS has led to WASH improvement programs and research at CWAS

Pre SBM and AMRUT

2010

Non-Revenue Water

10 cities in Gujarat

2011-12

WASH in Slums

Slum Free Cities - Study for Ahmedabad Municipal Corporation

Pro-poor Benchmarking with UNESCO-IHE

Slum Settlement Studies across Gujarat and Maharashtra

2013

24X7 Water supply

15 cities in Maharashtra

2013-14

Open Defecation Free cities

15 cities in Maharashtra

Faecal Sludge and Septage Management

Wai, Sinnar

2014

Financial Sustainability of cities

Municipal finance Assessments for 15 cities in Maharashtra

SBM and AMRUT

2016

Support to the Swachh Maharashtra Mission

Scaling lessons in sanitation across all 400 cities under the Swachh Bharat Mission

2017

Innovative Finance for Urban Sanitation

Financing FSSM, Sanitation credit, Development impact

2018

City Wide Inclusive Sanitation

Demonstrating safe and inclusive services, innovation and accountability for sanitation across Maharashtra

2021

Strengthening Finances of Municipal Governments

Chapter in NFSSM Alliance publication on Municipal Strengthening

SBM 2.0 and AMRUT 2.0

2021-22

ESG and Creditworthiness assessments for Indian cities

2022

Urban Water Security

Community engagement and demonstration projects across Kachchh and rural Maharashtra

2022-24

Climate Mitigation and Adaptation for WASH

Making WASH services in Maharashtra cities climate responsive

Partnership with the Majhi Vasundhara Mission in Maharashtra

Climate resilient SWM in Gujarat

2023

Last mile connectivity for Water supply

Study for MoHUA under AMRUT

2024

Capacity building as Swachhata Knowledge Partner

Empaneled by MoHUA, partner to Govt of Gujarat for SBM 2.0

Aligning with government programs and priorities

स्वच्छ भारत 2.0 एक कदम स्वच्छता की ओर

अमृत 2.0 Atal Mission for Rejuvenation and Urban Transformation

SAFAIMITRA SURAKSHA CHALLENGE 19 Nov 2020 - 15 Aug 2021

SWACHH SURVEKSHAN 2023

National Urban Livelihoods Mission Ministry of Housing & Urban Poverty Alleviation

Work with all three tiers of Governments to influence policies and implementation

Not just core WASH services, flexible to evolving development agenda

Municipal Borrowing

Creditworthiness assessments for Indian cities – combining PAS with other data sources

Sustainability reporting

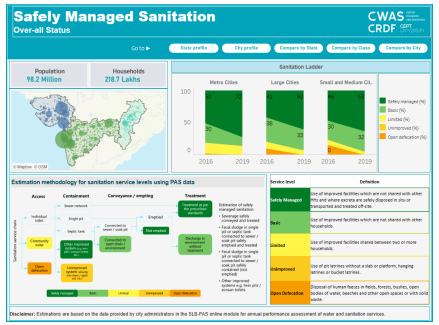
ESG assessments for Indian cities – combining PAS with other data sources

Climate monitoring

Climate Indicator Framework integrated with PAS - Focusing on adaptation and mitigation

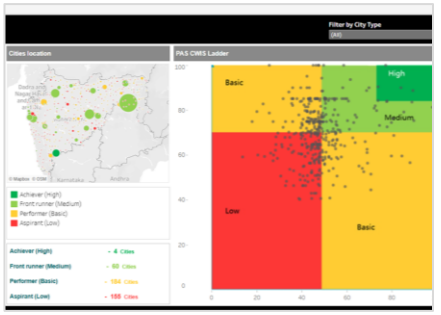
Localizing SDG

Using PAS for monitoring SDG 6.2 at local level



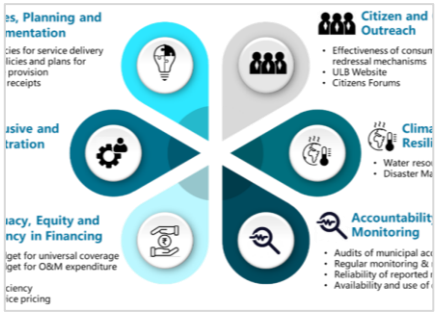
CityWide Inclusive Sanitation

Monitoring performance of cities on CWIS across service outcomes and system functions



Water Governance Framework

Climate Indicator Framework integrated with PAS - Focusing on adaptation and mitigation



What sets PAS apart?

Inclusive and suited to local contexts – equity, onsite sanitation, local languages

Efforts for improving data reliability

Assessing safe and sustainable services across the full service chain

Government ownership and responsibility

Focus on Financial sustainability of services

Scalable, consistent and sustainable

PAS partnerships

Thank you

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

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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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