10 years of Performance Assessment System

Workshop Report

June 20-21, 2019

CEPT University, Ahmedabad

10 Years of Performance Assessment System (PAS@10)

Consultative Workshop

June 20–21, 2019

Ahmedabad

Contents

Background

The Center for Water and Sanitation (CWAS) at CEPT University (Centre for Environmental Planning and Technology) has been working on water- and sanitation-related action research since 2009. CWAS began its work when CEPT University received a grant from the Bill and Melinda Gates Foundation (BMGF) for setting up a Performance Assessment System (PAS) for urban water supply and sanitation in two states in India.

Over the past 10 years, PAS Programme on CEPT University has developed methods and tools to measure and monitor service levels and improve delivery of water and sanitation services. This is aligned with the Government of India's (GoI) Service Level Benchmarking (SLB) framework. The publication of SLBs has been stipulated as one of the requirements by the 13th and 14th Central Finance Commissions (CFC) for award of performance grants to urban local bodies (ULBs). Service level monitoring and improvement are also the envisaged outcomes of the GoI's various urban Programmes such as Atal Mission for Rejuvenation and Urban Transformation (AMRUT), SMART cities, and Swachh Bharat Mission (SBM). Many states have now institutionalised the process of collection of information for SLBs.

In 2009, the SLB-PAS system was initiated in over 400 cities in Gujarat and Maharashtra. Now it is used by over 900 cities in six states of India. This has created one of the largest urban water supply and sanitation databases in India and is used regularly by various governments and other institutions.

The PAS Programme has completed ten years. To reflect on what has been achieved, the impact it has made, and the lessons that can be drawn from this decadal journey, a consultative workshop was organised on June 20 and 21, 2019, in CEPT University, Ahmedabad. Around 100 participants from diverse institutions including national, state and city governments, consulting firms, researchers, academicians, and various CWAS partners participated.

Participants reflected on the journey and expressed their views on the robustness and rigorousness of the PAS Programme. They mentioned the diverse uses of the PAS database. It was also stated that PAS is placed at a strategic position of being able to replicate in the entire country at a time when water and sanitation are amongst the priority sectors for the government at all levels. The participants also advocated expanding the scope of PAS beyond water and sanitation services.

Session 1: Inaugural Session

The inaugural session of the workshop started with welcome addresses by Dr Meera Mehta (Executive Director, CWAS), Dr Bimal Patel (President, CEPT University), and Dr Suren Vakil (Vice-Chairman, CEPT Research and Development Foundation).

Dr Meera Mehta welcomed Mr C.K. Koshy, IAS (retd Additional Chief Secretary, Government of Gujarat). She mentioned that he has, along with Mr Sukthankar, IAS (retd Chief Secretary, Government of Maharashtra), been part of the Project Advisory Committee that has guided the PAS Programme for over 10 years. She also welcomed Mr Kunal Kumar, IAS (Joint Secretary and Mission Director, Smart Cities, Ministry of Housing and Urban Affairs (MoHUA, GoI) and government officials from other states where the PAS Programme has provided support for regular performance assessment. In her address, she briefly described the scale, sustainability, and impact of the PAS Programme. Started in two states covering 400+ cities, PAS has sustained over 10 years and is now implemented in six states covering 900+ cities in India. Therefore, it is really a milestone for us as we pause to reflect and explore future directions.

> *"Typically, a city government is often more interested in creating infrastructure than assessing service provision. PAS has helped to bring a change in the mindset of city officials but this process takes time."*
> *– Dr Meera Mehta*

She also emphasised the need for information to make cities equitable and liveable. She thanked the BMGF for its continued support. She also acknowledged the support from CEPT and from Dr Bimal Patel, who have helped to put the PAS Programme within a wider framework of a Center for Water and Sanitation.

Dr Bimal Patel, President of CEPT University, welcomed the participants. He said that CEPT University focuses on issues of habitat and built environment. "We think about how built environments are planned, designed, constructed, and managed." Besides teaching programmes in five faculties at undergraduate, postgraduate and doctorate levels, research initiatives are now organised under the umbrella of the CEPT Research and Development Foundation (CRDF).

> *"CWAS is one of the most stellar Centers in the CRDF and has done exemplary work over the past decade. It has engaged with real-life problems and has tried to add and improve the practice in the field."*
> *– Dr Bimal Patel*

Dr Suren Vakil congratulated the centre for completing 10 years of the PAS Programme and wished many more years of continued excellence to CWAS. In India, we need to get to a stage where every citizen has access to clean and safe water supply in their homes 24 hours a day, and reuse wastewater after treating it according to required standards. He mentioned that it is good to see that in India we have begun the process of improved services for both water and wastewater as well as reuse. We are starting to see progress along this line at an increased pace. Cities are putting specific targets in the public domain, which is very encouraging. The PAS Programme has helped them to track their service level improvement targets of water and sanitation.

Professor C.K. Koshy reminisced about how time has flown. "These 10 years have been very eventful years. We are celebrating 10 years of PAS Programme when water has come to the centre stage of national programmes." India is looking to focus on water and developing policy and Programmes for integrated water approaches.

> "PAS Program is situated in an extremely strategic vantage point at a time when India is looking at conserving and ensuring efficient use of water. It has created and sustained one of the largest databases available in India for urban water supply."
> – C.K. Koshy, IAS (retd)

He mentioned that there are three distinctive features that make this journey memorable: (a) PAS was ahead of time in looking at urban water and sanitation as services in a way that was never looked at before at this scale in India; (b) PAS Programme was conceptualised and implemented by putting it to very rigorous academic standards. Thus, the emerging results and systems are credible, robust, and easy to use by policy planners; and (c) PAS Programme is known for its sustained use and impact. Today the PAS online system and its dashboards are used in six states and over 900 cities in the country, placing it in a strategic position of being able to be replicated. He suggested that any programme should leave legacy but Dr Meera Mehta and Dr Dinesh Mehta have gone further.

> "A legacy is left when the project fades out but now, more than ever, there is no need for legacy because PAS will live for a long time." – C.K. Koshy, IAS (retd)

Dr Dinesh Mehta briefly presented 'Journey of PAS Programme for over a decade'. He mentioned that the world talks about Cape Town and when it would run out of water, but a large number of cities in India are running out of water. The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) of the GoI was a Rs 50,000-crore mission, but how much water is actually getting into the tap at a household level is not known. The PAS Programme was conceptualised in 2008 to assess performance of municipal service delivery in water and sanitation sectors. What is heartening to note is that the issue of water has once again become a centre of government programmes. "We are now talking about 'Nal se Jal' and making cities water-positive."

He explained that, initially, the team faced many challenges in data collection because of the lack of a proper system of data management at city level. The PAS Programme has helped cities to shift from "non-availability of data or very less data on hard copies" to "online data availability". He described the PAS Programme's efforts in developing indicators to capture non-networked sanitation contexts and equity aspects in service provision.

> "Based on the interaction with various city and state officials and learning from day-to-day experience, the team has developed an online performance assessment system that can be mainstreamed and sustained in the government with its own resources." – Dr Dinesh Mehta

He also spoke about the support provided by the PAS Programme for preparing performance improvement plans and information system improvement plans, as well as various tools

developed to support help cities for service improvements.

In his keynote address, Mr Kunal Kumar, IAS, Joint Secretary, Smart Cities Mission, MoHUA, talked about the need for data systems at city, state, and national levels to drive urbanisation and manage urban areas in a better way. He mentioned that data systems need to be embedded in government systems. In addition, a change in mindset is needed about how we look at governance and development. The PAS Programme changed the mindset of city officials; it is now much more than just a technical dataset. He explained the importance of datasets in the era of urbanisation, saying that such the datasets will help cities take real time decisions and manage systems in a better way. The water situation in Chennai, for instance, happened gradually over time. However, as there was no mechanism to measure it in real time and monitor it regularly, it came as a shock to all.

"In the situation of frequently changing city officials and multiple agencies in urban areas, PAS can be an integrator and provide uniform datasets for cities. Data will tell a neutral story." – Kunal Kumar, IAS

In recent times, many missions – such as the Smart cities, SBM, AMRUT, and the Pradhan Mantri Awas Yojana – have been launched. Under these, city and state officials have to submit mission-related data showing the existing situation of the city. He mentioned that the India Urban Observatory platform aimed at creating a single data platform under the MoHUA. Through this platform, data will be collected for cities without repeatedly creating datasets for different missions in a fragmented way. This can be used by multiple stakeholders to measure and visualise service levels in urban areas.

Session 2: WASH Monitoring at State Level

The objective of this session was to share experiences of the state level water and sanitation monitoring systems, and how the PAS Programme has supported assessment and improvement of WASH services. The session included presentations from state officials followed by a panel discussion.

Mr Ameet Kumar, IAS, Director of the State Urban Development Agency (SUDA), Jharkhand, presented the various initiatives taken for improvement of water and sanitation services. He mentioned that the state government had carried out gap analysis of water supply and sanitation service levels using the PAS datasets.

> *"Jharkhand state is far behind than the national average in liquid waste management but this has helped it to adopt new technologies. Now the state government has proposed FSSM in cities with low water supply and population density." – Ameet Kumar, IAS, Jharkhand*

He also highlighted the interventions taken by Jharkhand's government in the water and sanitation sector under various projects proposed under AMRUT, Namami Gange, and SBM Missions. A few best practices of Jharkhand state – such as the online system for revenue collections and integrating property tax data with water supply, wastewater and solid waste management services – were also presented. A pool of *Rani Mistris* (women masons) created to supplement the shortage of trained masons was described. Jharkhand has been awarded as the 'Best Performing State'; it was number 1 and number 2 in Swachh Sarvekshan (SS) monitoring, in 2018 and 2019, respectively.

Mr Bhuvan Sharma, Mission Manager, Project Management Unit (PMU) of SUDA, Chhattisgarh, briefly described the key features of the online SLB-PAS system and the usefulness of the PAS dataset. Data recorded by ULBs is generally not well structured, and the

PAS Programme has supported the state government in collection of data on water and sanitation in uniform formats. He explained that the PAS online module has interlinkages of water and sanitation sectors; cities, thus, need to keep their datasets properly linked. The state has set up a Performance Improvement Unit (PIU) in every division. PIU officers support ULBs to collect and fill data, followed by data analysis and gap identification. They also support cities to identify measures to improve their performance.

> *"SLB-PAS data is used to identify areas of improvement and prepare water and sanitation related policies and programmes for cities in Chhattisgarh. The SUDA organises regular capacity-building workshops for PIU officers and city officials with support from the state SLB Cell and CEPT team." – Bhuvan Sharma, Chhattisgarh*

Chhattisgarh has topped in SS 2019, and 112 cities out of 160 have been declared open defecation free (ODF++). He also showcased the success of the city of Ambikapur, which has developed a zero waste landfill model and has received a '5 star' rating, the highest, under the Garbage Free Cities Star Rating.

Mr K.V. Ramana Chary, Municipal Commissioner, Siricilla Municipality, Director of Municipal Administration, Telangana, described how the state and city governments have used the PAS-SLB datasets to develop detailed project reports (DPRs), and regional plans for water and sanitation services. He explained that the state government supports all ULBs to provide information for water

supply, toilets, waste management, parks, and streetlights in their cities.

> *"To distribute funds amongst cities based on their need, the state government has checked the current water supply and sanitation status of cities using PAS-SLB datasets and distributed funds accordingly."* – K.V. Ramana Chary, Telangana

He thanked the PAS Programme team for supporting the ULBs in Telangana for publication of SLBs and to avail the 14th Finance Commission performance grants. Municipal commissioners and other officials were trained in the use of the online SLB-PAS module over the last three years. He explained the overall service levels of water and sanitation through PAS-SLB indicators and highlighted that this data is also used for assessing the last mile connectivity in water supply.

Mr M. Sankaranarayanan, Director, Directorate of Municipal Administration (DMA), Maharashtra, focused on the phenomenal change in the system, from no data availability to access to organised data based on the PAS-SLB online system. Maharashtra is one of the first two states in the country to have adopted this and published service levels for water and sanitation services online even before it became a requirement as per the 13th Central Finance Commission. He thanked the All India Institute of Local Self Government (AIILSG), a PAS Programme partner, for providing technical support for the implementation of the PAS online system across all cities in Maharashtra.

The use of this data is not limited to performance measurement and monitoring; it can be extended for the preparation of improvement plans, such as city sanitation plans, solid waste management DPRs, and faecal sludge management plans. He also

highlighted a few cases of data-driven initiatives taken by some cities in Maharashtra. He discussed the examples of Municipal Corporations of Navi Mumbai, Pimpri Chinchwad and Pune, which have developed city level information and monitoring systems to operate and monitor various urban services.

> *"Time series performance dataset of urban Maharashtra is used for preparing policies and new schemes for water and sanitation sectors. DMA as well as Comptroller and Auditor General refer service level data provided by cities in online SLB-PAS system for auditing and monitoring purposes."* – Behere Bhalchandra, Maharashtra

Mr Vijay Anadkat, ex-team leader, PMU, Gujarat Urban Development Mission, presented highlights of various ongoing schemes, and performance assessment activities of the water and sanitation sector in Gujarat. He described how Gujarat has progressed in database management with the support of the PAS Programme at CEPT University and its partner, Urban Management Centre (UMC).

> *"Earlier cities shared data in hard copies with the state government of Gujarat, which was time consuming and difficult to collate and analyse. However, now the PAS Programme has supported setting up an online system and developed skills of city officials through capacity building activities."* – Vijay Anadkat, Gujarat

The PAS Programme also supported many cities in Gujarat for preparation of performance improvement plans and information system improvement plans. The PAS-SLB data was also helpful to the government for the formulation of septage management and wastewater reuse policies. He also said that PAS-SLB data is

referred by the state officials for preparing budgets and identifying sector priorities. CEPT University also provides advisory support to the state government in preparing various state documents such as the State Vision Plan, Roadmap for Development, and preparation of public health by-laws.

Panel Discussions

Participants expressed their views on the usefulness of having online performance assessment systems for water and sanitation in urban areas. The discussants in the panel highlighted how these systems can be strengthened. The key highlights were:

Staff capacity assessment and human resource management are crucial for performance assessment of services: Participants cited the non-availability of staff and lack of capacity as major issues in building a data-driven system at local levels. It was felt that just as each city has a Data Coordinator under the Smart Cities Mission, all cities need to have at least a designated data manager. Performance assessment of the city should also include staff availability and their capacity.

Need to link with e-governance system: It was also suggested that the SLB-PAS system should be integral to the e-governance system in the city. This will lead to better decision making and improved data reliability.

Need for integrated water management: With more instances of water crisis across cities, it is important for cities to ensure adequate water supply to all citizens. For this, cities need to also focus on rainwater harvesting and conservation, treated wastewater reuse, improving the condition of its own sources of water, implementing projects such as rivers and lake interlinking, and cleaning and protecting the city's water bodies. Officials from Telangana mentioned that various projects have been implemented which focus on cleaning and revival of perennial river and lake linking projects to supply sufficient water to urban and rural areas. It would be good to capture information about, and the impact of, such efforts in the PAS-SLB system.

Cluster based approach for service level improvement: It was also pointed out that for any service improvements, it is important to explore approaches using clusters of small cities. This will help save land, and infrastructure costs can be shared amongst cities. There may also be opportunities for co-treatment for solid waste and for faecal sludge and septage management. For example, smaller cities that generate comparatively less construction and demolition (C&D) waste in Chhattisgarh could send their waste to larger cities for processing.

Session 3: Urban Data Systems

The objective of this session was to understand different urban data systems from various experts working with governments to support and improve data systems for urban governance in India. The session had presentations from consultancy firms, philanthropic foundations, non-governmental organisations, and startups, followed by a panel discussion.

Mr Abhishek Dubey (Associate Director, PwC) made a presentation on urban data systems. Under the Smart City Mission, city data officers have been appointed in each participating city. The command and control centre of each smart city will integrate all data systems in the city and provide good situational analyses. He also mentioned that as such officers start to support data analysis and its use, they will be able to support decision makers and the preparation of plans and policies. Sensitivity to good data and good data policies is important and will help in data quality improvement. There is a need to start treating data as an economic resource.

> *"Open data allows private start-ups and other stakeholders to use innovative techniques and systems to help improve service efficiency." – Abhishek Dubey, PwC*

He briefly presented the Data Smart City Strategy of the MoHUA, which is based on three pillars: People, Process, and Platform. India Urban Observatory will be the main data analysis and management hub of the MoHUA. It is envisaged to create a 'Culture of Data' in cities, and leverage data to derive insights and assess trends in urbanisation.

Dr Poornima Dore (Head, Data Driven Governance, Tata Trust) explained the need to maximise the benefits of India's growth story by harnessing the power of data. The main objective of Tata Trust's data-driven governance is to support and empower urban and rural governments and associated stakeholders to move towards a culture of data-reliant decision making. She highlighted

Tata Trust's ongoing projects in the areas of rural governance, urban governance, accountability and capacity building, where data systems are being used.

> *"Data-driven governance is possible only if the institutions are strengthened and integrated with government systems." – Dr Poornima Dore, Tata Trust*

Ms V.R. Vachana (Associate Manager, Janaagraha) described the study carried out to evaluate urban governance under the Annual Survey of India's City-Systems (ASICS). It showed the poor state of service delivery in cities and identified key issues in governance. It also underlined the key levers of transformative change in Indian cities. She suggested that state governments will need to take leadership for city-systems reforms, and not rely only on central schemes and missions.

> *"The ability of an Indian city to deliver a good quality of life largely depends on how good the city systems are." – V.R. Vachana, Janaagraha*

Mr Ronak Sutaria (Founder and CEO of Respirer Living Sciences Pvt Ltd) presented the company's work on real-time air quality monitoring systems.

> *"Real-time open data can bring people together and they feel connected with the data." – Ronak Sutaria, Respirer Living Sciences Pvt Ltd*

He explained the status of air quality in different cities of India along with the associated reasons. He showed that only 5 per cent cities have real-time air quality monitoring systems and highlighted three key challenges: (a) availability and continuous field evaluation of accurate sensor data; (b) access to analytics for citizens, and other users such as public health officials and research scientists; and (c) the need for buy-in for mitigation policies from administrative, legal, and regulatory agencies.

Panel Discussion

In the panel discussion, chaired by Mr V.K. Phatak, panellists discussed the challenges and issues related to data collection, usability and the 'right approach' for data assessment and the need to move towards data driven governance/management.

The key highlights of the discussion were:

Capacity building of decision makers is necessary to look beyond data: Cities need to use data for their own decision making. If decision makers ask the right questions and demand analysis before financial allocation or policy/programme implementation, then data systems will also improve.

Need for a common data-sharing platform for the central, state and local governments: It was discussed that data is power for the government and nobody wants to share this power. Due to lack of coordination between different government departments, work on data collection is very often repeated for similar data. This also leads to inconsistencies. Thus, there is a need for common platforms for data by various governments and across services.

Data security and open data have to move together: In a democratic and vibrant city, basic services and environment-related data needs to be made available to all citizens. This is also required as per the GoI's Open Data Policy that calls for proactive sharing of data by different government agencies, both at the national and sub-national levels, in standardised human- and machine-readable formats. Easy availability of basic civic data to the citizens will also help them to engage in a meaningful conversation with local governments.

Session 4: Performance Assessment System Programme: Partners

The objective of the session was to understand the experiences of the PAS Programme partners, academicians, and other users associated with the PAS Programme.

Dr Mona Iyer, Professor at Faculty of Planning, CEPT University, talked about the role of PAS Programme in academia. She underlined that the PAS online system and various other tools developed under the PAS Programme by CWAS have been used by the students over the past 10 years. Students' reports and papers are disseminated through research programmes and academic conclaves. It also helps the academicians at CEPT University to bring professional experience in their classroom teaching. In addition, many CEPT University faculty members have also used the PAS-SLB datasets across five states for their own research.

> *"PAS data has been extensively used in studio exercises and various student dissertations and projects related to water and sanitation. It helps to engage students in real problem solving exercises."*
> *– Dr Mona Iyer, CEPT University*

Mr Rakesh Tripathi, Technical Lead, TCS, shared his experience of developing an online system for performance assessment of water and sanitation services. He stated that PAS-SLB platform provides a unique online tool for systematic data collection with a large number of inbuilt data validation checks. He explained the online system in detail. The PAS platform also enables comparisons across cities of different size classes in a state.

Mr Arvind Singh, Senior Programme Manager, Urban Management System (UMC), shared the journey of getting cities associated with PAS in Gujarat. In the first year, during pilot tests, cities did not have any data or were not willing to share the data with the team. Over time,

> *"The performance assessment system is already available on an online platform. This makes it possible to add new cities to come on-board and start using monitoring themselves."* – Rakesh Tripathi, TCS

multiple visits were made to the cities to gain their trust and to understand their data recordkeeping and monitoring systems. Based on that, detailed checklists and guides were prepared.

> *"Data collection process in Gujarat evolved over time, initially by visiting every city, then calling them in Gandhinagar and now they are filling data from their offices. The team provided support only for data validation."* – Arvind Singh, UMC

The role of the PAS Programme team has changed over a period "from data collectors to validators and as facilitators between state and cities". Initially in the SBM of the GoI, there was no data related to the situation regarding access to toilets and solid waste management services in cities at state level, except for the data and indicators available under the PAS online platform. Based on analysis of this data, the PMU for the SBM was able to prepare strategies for access to toilets and solid waste treatment.

Mr Pashim Tiwari, Technical Director, AIILSG, talked about the experience of data collection in the states of Chhattisgarh and Jharkhand. These states were very proactive in understanding the process and using data for performance improvement of services. He highlighted the three important aspects of

data: integrity, urgency of reporting, and the need for continuity.

> *"Data is used to respond to different needs when it is available in the public domain and regularly over a period of time."*
> *– Pashim Tiwari, AIILSG*

Ms Utkarsha Kavadi, Director, Regional Centre for Urban and Environmental Studies (RCUES) at the AIILSG, Mumbai, spoke about her experience of implementing the PAS Programme in Maharashtra. As in Gujarat, in Maharashtra also it was difficult to get the data out of hidden files and papers in initial years. Using the SLB-PAS data, many city sanitation plans and performance improvement plans were prepared for cities in Maharashtra at the request of the Government of Maharashtra and local governments. SLB-PAS data has also been

> *"There is a large amount of data that has been captured in the last 10 years under the PAS-SLB platform. This has made it possible to implement missions such as Swachh Maharashtra." – Utkarsha Kavadi, RCUES, AIILSG*

used extensively to prepare strategies for making cities ODF, ODF+ and ODF++ under the Swachh Maharashtra Mission.

Key highlights from the discussion:

SLB-PAS dataset has always been very useful for situation analysis of the sectors. In addition, students, researchers, and faculty members have used this wealth of data in many research projects and activities.

The PAS Programme has supported regular access to city level services related data. This helps with plans for betterment of cities and for formulation of policies and programmes at the state level. Particularly, both state and city governments have understood the importance and usefulness of such time series data for developing policies and projects in various missions such as Smart cities, SBM, and AMRUT.

Implementing the PAS Programme is easier when digital governance is common. In Jharkhand and Chhattisgarh, it was relatively easier as these states have adopted digital governance at a local level and the local officials are used to such data sets.

Session 5: Reflections from Partners and Deliberations on the Way Forward

The objective of this session was to share lessons and experiences of PAS partners and deliberate on actions for strengthening the PAS Porgramme and PAS-SLB online system.

The session was initiated with reflections by the three main partners of the PAS Programme: Center for Water and Sanitation at CEPT University, UMC, and AIILSG. Under this Programme, Performance Assessment has been a journey from data collection in the initial years to supporting regular monitoring, policy and programme preparation and implementation. Professors Dr Meera Mehta and Dr Dinesh Mehta reminisced about the journey of the PAS Programme and the support provided by various levels of governments and various stakeholders. They also thanked their partners, AIILSG and UMC, for their continued support and being supportive and accommodative through this 10-year journey.

Ms Manvita Baradi, Director, UMC, emphasised the integration of performance assessment in the decision-making process at various levels. She talked about how implementation and monitoring of programmes and projects are strongly influenced by institutional hierarchy, and that this needs to be taken into account.

Ms Utkarsha Kavadi, AIILSG, emphasised that the process is not about data collection but also improvement of service delivery. The challenge lies in analysing data, and in developing and improving the online data systems. She also emphasised involvement of stakeholders in data collection, crowdsourcing information from citizens, and creating simple formats to record and maintain data.

Group discussions by participants helped to clarify the way forward for the next 10 years.

The key takeaways from these discussions include:

The PAS online system should be used at the national level and taken to all the states. The online system is currently being used widely across India by five states and over 900 cities. It has the potential to be used at the national level across more states and cities for monitoring the performance of water and sanitation services in urban areas.

It is important to provide support to state governments to use service data. This helps in identifying priorities, preparing projects, designing performance-based funding programmes, and supporting policies and innovation in service delivery.

Explore the possibility of additional indicators in PAS-SLB. Additional indicators could be related to aspects such as governance, energy efficiency, groundwater management, rainwater management, human resource management, etc.

It is important to support monitoring for WASH Sustainable Development Goals (SDGs). National, state, and city governments can use PAS-related information for monitoring SDGs at the city, state and national levels.

There is potential to explore the use of PAS portal in rural areas and for governance assessments. Discussions highlighted the possibility of using PAS portal for peri-urban and census towns in rural areas, and for wider monitoring of municipal governance and strengthening activities.

Conclusions and the Way Forward

Participants reflected on the journey of the PAS Programme and appreciated the use of robust and rigorous approaches. They also emphasised the possibilities of the diverse uses of the PAS database. There was an overall consensus that the PAS Programme is placed in a strategic position, that it can be replicated in the entire country at a time when water and sanitation are among the priority sectors for the government. In this context, participants acknowledged the impact of PAS and advocated the expansion of its scope beyond the five states to the country level and to new opportunities of looking at governance and monitoring SDG 6 for urban areas.

Participants also appreciated the exhibition showcasing the work of the PAS Programme and of CWAS over 10 years. This workshop has provided an opportunity for knowledge sharing and dissemination. There was appreciation of the opportunity for cross-learning with peer groups. The state officials affirmed how useful the PAS Programme and PAS-SLB datasets have been for their planning and budgeting processes.

The CWAS team has initiated discussions with the MoHUA to explore the possibilities of using the PAS platform in all 100 cities of the SMART Cities Mission and in the India Urban Observatory. This will pave the way for the PAS online portal to be used pan India over time. CWAS also plans to explore the possibilities of using the PAS Portal for assessing urban governance and measuring SDG targets 6.1 and 6.2.

The workshop ended on this positive note: to recognise the achievements of the PAS Programme; and to strongly advocate its further expansion to all smart cities, all states and in new areas of monitoring SDG Goal 6 for WASH and efforts at municipal strengthening and improving urban governance.

PAS@10 Open House Exhibition

Refer below link to view these posters online:

https://pas.org.in/Portal/document/ResourcesFiles/PAS@10_Exhibition_Posters.pdf

Workshop Agenda

Date: June 20, 2019

Time	Sessions
10.00 – 10.30	Registration
Session 1: Inaugural session	
10:30 – 10:45	**Welcome and introduction:** Dr Dinesh Mehta/Dr Meera Mehta, CWAS Mr Suren Vakil, Vice-Chairman, CRDF Dr Bimal Patel, President, CEPT
10:45 – 10:55	**Remarks from PAS Advisory Committee Member:** Mr C.K. Koshy, IAS (retd), Additional Chief Secretary, Government of Gujarat
10:55 – 11.15	**Journey of PAS:** Dr Meera Mehta/Dr Dinesh Mehta, CWAS
11.15 – 11.45	**Keynote address:** Mr Kunal Kumar, IAS, Joint Secretary and Mission Director, Smart Cities, Ministry of Housing and Urban Affairs, Government of India
11:45 – 12:00	Tea Break
Session 2: WASH Monitoring at State Level	
12:00 – 13:15	**Chair: Ms. Jaladhi Vavaliya, Sr. Programme Lead, CWAS** *Panel:* Mr Ameet Kumar, IAS, Director, State Urban Development Agency, Jharkhand Mr Bhushan Sharma, Mission Manager, State Urban Development Department, Chhattisgarh Mr. K.V. Ramana Chary, Municipal Commissioner, Siricilla Municipality, Telangana Mr Behere Bhalchandra Shaligram, Deputy Director, Directorate of Municipal Administration, Maharashtra Mr Vijay Anadkat, Ex- team leader, Gujarat Urban Development Mission
13:15 – 14:00	Lunch
Session 3: Urban Data Systems	
14:00 – 15:45	**Chair: Prof V.K. Phatak, Dean, Faculty of Planning, CEPT** *Presenters:* Dr Poornima Dore, Head, Data Driven Governance, Tata trust Mr Abhishek Dubey, Associate Director, PwC Ms V.R. Vachana, Associate Manager – Advocacy, Janaagraha Mr Ronak Sutaria, Founder and CEO, Respirer Living Sciences Pvt Ltd
15:45 – 16:00	Tea break

Session 4: Performance Assessment Systems: Partners	
16:00 – 17:30	Chair: Dr Meera Mehta *Panel:* Mr Pashim Tiwari, Technical Director, AIILSG Ms Utkarsha Kavadi, Director, RCUES, AIILSG Mr Arvind Singh, Senior Programme Manager, UMC Mr Rakesh Tripathi, Technical Lead, TCS Dr Mona Iyer, Associate Professor, CEPT
17:30 – 18:30	Open House: Exhibition
19:00 onwards	Dinner

Date: June 21, 2019

Sessions 5 : Reflections from Partners and Deliberation on the Way Forward	
10:30 – 11:00	PAS team reflections: CEPT – Dr Dinesh Mehta/Dr Meera Mehta, Ms Jaladhi Vavaliya, Mr Dhruv Bhavsar UMC – Ms Manvita Baradi / Ms Meghna Malhotra AIILSG – Ms Utkarsha Kavadi
11:00 – 12:00	Deliberation on the Way Forward
12:00 – 12:30	Tea break
12:30 – 13:00	Wrap up and Close of workshop
13:00 onwards	Lunch

List of Participants

	List of Participants	Organisation
1	Aakash Agrawal	Omidyar Network
2	Aasim Mansuri	Senior Programme Lead, CWAS
3	Abhay V. Rao	Manager, Dasra
4	Abhishek Dubey	Associate Director, PwC
5	Abhishek Kochure	Senior Project Officer, AIILSG
6	Aditi Dwivedi	Research Associate, CWAS
7	Amee Mori	SBM, Gujarat
8	Ameet Kumar, IAS	Director, SUDA, Jharkhand
9	Anagha Nabar	Research Associate, CWAS
10	Anil Dutt Vyas	Professor, Manipal University, Jaipur
11	Anirudh Shiyal	Regional Director , AIILSG
12	Anurima Mukherjee Basu	Assistant Professor, FP, CEPT
13	Arvind Kumar Singh	Senior Programme Manager, UMC
14	Arwa Bharmal	Research Associate, CWAS
15	Ashish Sontakke	Adani Ltd
16	Ashwini Kumar	Associate Professor, FP, CEPT
17	Behere Bhalchandra Shaligram	Deputy Director, DMA, Maharashtra
18	Bhuvan Sharma	Mission Manager, PMU, UDD, Chhattisgarh
19	Bimal Patel	President, CEPT University
20	Binaca Shah	IIM-A
21	C.K. Koshy, IAS	Former Additional Chief Secretary, Gujarat
22	Chandan Kumar	Urban Reform Specialist, Ranchi MC, Jharkhand
23	Darshan Parikh	Operations Director, CRDF
24	Deepak Joshi	Executive Engineer, UDD, Chhattisgarh
25	Depinder Kapur	Senior Domain Expert and Team Lead, NIUA
26	Dhanshree Zende	Programme Lead, CWAS
27	Dhara Shah	Senior Programme Executive, CWAS
28	Dhruv Bhavsar	Senior Programme Lead, CWAS

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29	Dhwani Sheth	Research Associate, CWAS
30	Dinesh Mehta	Project Director, CWAS
31	Gargi Mishra	Research Associate, CWAS
32	Gaurav Kushwaha	Junior Research Associate, CWAS
33	Gaurav Sharma	CRDF-CHC
34	Gayatri Doctor	Associate Professor, FM, CEPT
35	Hemant Sharma	Executive Engineer, UDD, Chhattisgarh
36	Hemant Sharma	Administrative Executive, Communications Services, CEPT
37	Ilesh Patel	Assistant Consultant, TCS
38	Ishu Gupta	Research Associate, IIM-A
39	Jaladhi Vavaliya	Senior Programme Lead, CWAS
40	Jigisha Jaiswal	Research Associate, CWAS
41	Jitendra Kumar	City Manager, Adityapur MC, Jharkhand
42	K.V. Ramana Chary	Municipal Commissioner, Siricilla Municipality, Telangana
43	Kajal Jhakkar	CEPT
44	Karan Singhal	Research Associate, IIM-A
45	Kinjal Desai	Communication Coordinator, Communications Services, CEPT
46	Kunal Kumar, IAS	Joint Secretary and Mission Director, Smart Cities, MoHUA
47	Madhu Bharti	Professor, FP, CEPT
48	Mahroof M.	CEPT University
49	Maitri Patel	E&Y
50	Manas Rath	Senior Advisor, BORDA
51	Manasi Ranade	Research Associate, CWAS
52	Manvita Baradi	Director, UMC
53	Meera Mehta	Project Director, CWAS
54	Mercy Samuel	Associate Professor, FM, CEPT
55	Mona Iyer	Associate Professor, FP, CEPT
56	Upasana Yadav	Programme Lead, CWAS
57	N. Vanisri	Joint Director, DMA, Telangana
58	Neeru Bansal	Associate Professor, FP, CEPT

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59	Nidhi Tambi	Manager, Public Policy and Government Engagement, Piramal foundation
60	Nilesh Parmar	Research Associate, CWAS
61	Nitish Aman Sahu	Sub-Engineer, UDD, Chhattisgarh
62	P.N. Sahu	Superintendent Engineer, Raipur Regional Office, Chhattisgarh
63	Paresh Chhajed	IIT, Bombay
64	Paresh Vora	WIN Foundation
65	Pashim Tewari	Technical Director, AIILSG
66	Poornima Dore	Head, Data Driven Governance, Tata Trust
67	Prabhat Ranjan	E&Y
68	Rabindra Pandey	Executive Engineer, Deoghar MC, Jharkhand
69	Rakesh Tripathi	Associate Consultant, TCS
70	Rashmi Rani Mahakud	City Mission Manager, SUDA, Jharkhand
71	Reemsha Reen	Dasra
72	Reeny Modi	Intern, IWMI
73	Rohan Saini	Manager Urban BD Support and NPD, Piramal foundation
74	Ronak Sutaria	Founder and CEO, Respirer Living Sciences Pvt Ltd
75	Rucha Tavkar	Research Associate, CWAS
76	Rutool Sharma	Assistant Professor, FP, CEPT
77	Rutvi Patel	Intern, IWMI
78	Ravi Sannabhadti	Assistant Professor, FP, CEPT
79	Sanghamitra Acharya	Professor, JNU Delhi
80	Saubiya Sareshwala	Research Associate, CWAS
81	Shabbir Alam	City Manager, Chas MC, Jharkhand
82	Shaily Gandhi	CRDF
83	Shanti Menon	WIN Foundation
84	Shivangi Singh	WIN Foundation
85	Shivangie Akhaury	CRDF
86	Shrawan Kumar Acharya	Professor, SPA, Delhi
87	Shreya Killekar	Research Associate, CWAS

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88	Siddh Doshi	CEPT University
89	Snehashree	City Manager, Hazaribagh MC, Jharkhand
90	Suren Vakil	Vice-Chairman, CRDF
91	Surhud Tatu	CRDF-CHC
92	Umesh Panse	Director, Panse Consultants
93	Urvi Patel	Research Associate, CWAS
94	Utkarsha Kavadi	Director, RCUES, Mumbai
95	V.K. Phatak	Dean, FP, CEPT
96	V.R. Vachana	Associate Manager – Advocacy, Janaagraha
97	Vijay Anadkat	Ex- team leader, PMU, GUDM
98	Vishal Dubey	Assistant Professor, FP, CEPT
99	Yash Barve	Research Associate, CWAS
100	Yugasha Bakshi	Research Associate, CWAS

The Center for Water and Sanitation (CWAS) at CEPT University carries out various activities – action research, training, and advocacy to enable state and local governments to improve delivery of services.