Executive Summary

The virtual **Training program: 'Focus on Reducing Non-Revenue Water & Improving Water Quality'** was organized via webinar on December 11, 2020 for capacity building of ULBs of Atal Mission for Rejuvenation and Urban Transformation (AMRUT cities) of Madhya Pradesh. The training was conducted under the aegis of **Project SEWAH** (Sustainable Enterprises for Water and Health) – a joint initiative of Safe Water Network India and USAID and attended by Public Health & Engineering Department Staff and Engineers from various ULBs in the state as per facilitation by Madhya Pradesh National Institute of Governance and Urban Management.

We extend a sincere thanks to **Ms. Meenakshi Singh, National Institute of Governance and Urban Management**, as well as the **PHED, Government of Madhya Pradesh** for supporting this endeavour. We express our deep appreciation **to Mr Anand Rudra, *Senior Adviser - WASH*, USAID India,** for the keynote address on measures to be adopted to make cities water positive and the importance of reducing non-revenue water through leakage reduction and payment of bills and the water quality monitoring and surveillance for public health.Special thanks to **Ms. Poonam Sewak**, **V. P. Programs and Partnership** for hosting and anchoring the program and **Ms. Ipsita Gauba, Primus Partners** for facilitating the Training.

The Training Program comprised of three training sessions, viz.

1. Reduction of Non-Revenue Water by metering and leakage reduction
2. Water Quality Monitoring and Surveillance
3. Community Engagement of slum household for metering and billing for NRW Reduction

The Trainers for the sessions, respectively, were **Mr Prabhat Saxena** (Director, Technical & Business Unit, CWET India), **Dr Shveta Mahajan** (Program Associate, Safe Water Network, India), and **Dr Hemant Sahasrabuddhe** (WASH Consultant, Maharashtra).

Context of the Training ULB officials and PHED engineers in MP State

Madhya Pradesh, the second largest State of the country, ranks 8th on basis of population and accounts for 5.58 per cent of the total urban population of India. The 378 Urban Local Bodies of Madhya Pradesh accommodate 20.1 million urban population which accounts for 27.6 per cent of the total population of MP. Of the 16 Municipal Corporations, four are million-plus cities, namely Indore, Bhopal, Jabalpur, and Gwalior. Rapid urbanization has resulted in increasing pressure on existing urban infrastructure which not only needs to be maintained, but expanded to cover the new areas of urbanization. One of the key infrastructure sectors which need immediate attention are the augmentation of Water Supply with achievement of Service levels with respect to reduction in Non-revenue Water, and providing access to safe drinking water to all urban citizens. In the cities in MP, household access to piped water supply household coverage ranges between 21 – 74% and, per capita while water supply ranges between 55 to 135 lpcd.

Water Supply at the State level is under the jurisdiction of the Madhya Pradesh Urban development Company Ltd., under the Department of Urban Development & Housing, GoMP. In the cities and towns, the State water supply schemes are implemented and operated /maintained by the urban bodies.

Key Takeaways

The learnings and key messaging from the training sessions are summarized below: -

Reduction in Non-Revenue Water – Loss of the precious resource, water, as non-revenue water, is a major concern for municipalities across the country. This session focussed on strategies for NRW reduction (including technology interventions), improve efficiency of existing systems, rehabilitation of dilapidated systems, and fostering water leadership among citizens to conserve water.

Water Quality Monitoring and Surveillance – This session covered introduction to the Indian Drinking Water Standards, limits of chemical and biological contaminants and their health implication, the frequency and procedures for water quality testing in the laboratory and on-site testing of water samples using Field Test Kits.

Community Engagement for NRW Reduction – The detailed case-study of Nagpur city slums undertaken by the SEWAH project along with Nagpur Municipality showcased the planning, process and tools to be used to urge communities to install meters in the slums and pay for monthly water bills.

Trainer Profiles

Mr Prabhat Saxena, *Director, Technical & Business Unit,* Clean Water & Energy Trust

- Over 30 Years of experience in Management and Strategy Consulting, both Nationally and Internationally
- Implemented several infrastructural projects in India
- Has vast experience in technology development and management for Hi-tech Products and Systems at Siemens Ltd and Alstom Ltd
- Expertise in Global strategy formulation, M&A, marketing, organization conceptualization and deployment, project management and financial control
- Holds M Tech from IIT, Delhi and Large System Design from CESAMES, Paris. Executive Management from IIM, Bangalore

Dr Shveta Mahajan, Program Associate, Safe Water Network India

- Holds a PhD degree in Polymer Science and Biomedical Engineering from the Indian Institute of Technology, Delhi.
- Leads the water quality monitoring of more than 300 water stations at Safe Water Network India
- Support in research based reports, impact assessments, partner's program initiatives and case studies through field based learnings
- Previously engaged with the Indian Institute of Technology (IIT), Delhi, with research interests in the field of Biomedical Engineering, specifically the development of polymeric-Inorganic hybrid nanosystems as contrast agents for medical imaging (MRI)

Dr Hemant Sahasrabuddhe, WASH Consultant – Maharashtra

- Over 35 years of experience as an Engineer and Consultant in private and public sector with expertise in Structural Designing, Green Building Concept and Technology.
- Has consulted on various Civil Engineering projects including projects related to Water Supply, Drainage, Sewerage and Infrastructure
- Monitored, developed and executed an integrated township project named Ensaara Metro Park in Nagpur and was Indian Counterpart in German Aided Project (GTZ) on Slum Development
- Member of Indian Green Building Council, Indian Water Works Association (Nagpur Chapter), Indian Road Congress (New Delhi)
- Holds an M. Tech and Ph.D in Structural Engineering and LL.B and MBA from renowned universities