

# 1<sup>st</sup> Connective Cities Dialogue in Asia

## *Greening Cities and Promoting Urban Green Growth*

**Presented By:**



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# **GOOD PRACTICES IN PCMC**

- A. 24X7 CONTINUOUS WATER SUPPLY PILOT PROJECT AT  
YAMUNANAGAR, PCMC**
- B. SERVICE LEVEL BENCHMARK (SLB) CONNECT**
- C. IMPLEMENTATION OF SCADA WATER SUPPLY MONITORING  
SYSTEM IN PCMC**

# Starting point - Main challenge, issue, problem to be addressed

## A. 24X7 continuous water supply pilot project at Yamunanagar

- Action on organizational/human constraints
- Modernize asset management
- Prepare and implement an information, education and communications (IEC) campaign
- Implement a new cost-recovery policy

## B. SLB Connect

- No monitoring to strengthen focus on service delivery
- Reliability of survey data

# Starting point - Main challenge, issue, problem to be addressed

## C. Implementation of SCADA system in PCMC

- Absence of monitoring method
- Earlier system depended upon judgmental information operations of treatment, pumping and distribution system.
- Insufficient water supply due to manual operations

# Institutional setting - Frame conditions for the practice

- Govt. of India (Gol) have envisaged Service Level Benchmarks (SLB) for Urban Local Bodies (ULBs).
- Under these guidelines, providing 24x7 continuous water supply, reduction in Non Revenue Water (NRW), Complaint Redressal are some of the parameters.
- Also, it is very important to do Equitable Water Supply to the entire city which requires Automation.
- It is important to have a check regarding the services from the service beneficiary which can be achieved through Customer Survey Program.

# Stakeholders

## **A. 24X7 continuous water supply pilot project at Yamunanagar**

- Pimpri Chinchwad Municipal Corporation
- CDIA
- SUEZ Environment Pvt. Ltd (Leak Detection)
- Local Corporators of PCMC

## **B. SLB Connect**

- Pimpri Chinchwad Municipal Corporation
- Water and Sanitation Program (WSP), funded by World Bank
- Local Corporators of PCMC

# Stakeholders

## C. Implementation of SCADA system in PCMC

- Pimpri Chinchwad Municipal Corporation
- Recktronic Devices and Systems (RDS)
- College of Engineering, Pune (COEP)

# Approach - Methods, tools developed

## A. 24X7 continuous water supply pilot project at Yamunanagar

- House to house survey
- Network survey
- Hydraulic Modeling using Water Gems
- Leak Detection activity using helium gas technology and repairs
- Citizen Awareness Campaign
- Installing AMR meters, Flow meters and Data loggers



# Approach - Methods, tools developed

## B. SLB Connect

- In partnership with Water & Sanitation Program, developed a mobile-to-web ICT solution for systematic collection and analysis of feedback.
- Demonstrated ICT solution through implementation in PCMC. Survey of 5200 households in 2 months based on scientific survey techniques
- Developing institutional model for on-going use of SLB-Connect (i.e. repeat surveys at regular intervals)
- Dissemination of PCMC experience being done by WSP for replication in other cities

# Approach - Methods, tools developed

## C. Implementation of SCADA system in PCMC

- Installation of Flow Meters, Ultrasonic Level Sensors, Pressure Transmitters
- Installation of various analytical instruments for monitoring water quality parameters
- Automation of valves using actuators
- Reporting system using Scada Software (Rockwell)

# Outputs

## **A. 24X7 continuous water supply pilot project at Yamunanagar**

- Water pressure has increased
- Reduced leakages to a maximum level
- Complaints have reduced to nominal level
- Increase in average and peak pressure at Critical Points
- Supply reliability and reduced dependency on in-house sumps and overhead tanks for customer
- Reduction in pumping, energy cost for customers

# Outputs

## **B. SLB Connect**

- Better tracking of service outcomes
- Reality check for reported SLB data
- Granular information (e.g. zone-wise)
- Inputs for planning

## **C. Implementation of SCADA system in PCMC**

- Appropriately monitor the amount and quality of water supplied in the system
- Developed a real time information system

# Outputs

- Analyzing the issue of inequitable distribution of water
- Overall efficiency in operations of water supply department by reducing the number of complaints
- Effective data management and instant reporting ability
- Maintaining benchmark and isolating concern areas in water supply distribution
- Online complaint redressal & escalation system

# Lessons Learnt

## A. 24X7 continuous water supply pilot project at Yamunanagar

- Domestic connections leakages were a prime concern and shall be replaced and monitored on a regular basis.
- Asset Mapping, Customer Profiling, Zoning and Active Leakage Control to be implemented to improve demand and supply management.
- Customer Awareness Program is required to limit wastage of water.

# Lessons Learnt

## **B. SLB Connect**

- Data submitted on real-time basis
- Greater accuracy through geo tagging and time stamping
- Built-in consistency checks which increases the reliability of data

## **C. Implementation of SCADA system in PCMC**

- Detailed Network Study
- Proper selection of Instruments and key locations for installation.
- Regular maintenance for smooth functioning

# Transfer

## **A. 24X7 continuous water supply pilot project at Yamunanagar**

- Scaling up the project to city level by replicating the Pilot Project.
- The first step will be to take up a Pilot Project in their own cities.

## **B. SLB Connect**

- Sharing and discussing findings with citizens at local level
- Repeat surveys planned
- Integration into SCADA & operations
- Incorporate in department reviews and discussions



# Transfer

## C. Implementation of SCADA system in PCMC

- Clarity of output to be derived from SCADA implementation
- Training of Personnel
- Availability of suitable infrastructure

**THANK YOU**