

Pimpri, India

(Date of Tracer Study: Nov 2015 & March 2016; Tracer Study Team: B. Elangovan)

Project Background

The twin cities of Pimpri-Chinchwad are located in the northeast of Pune in the state of Maharashtra, about 160 km from India's financial center of Mumbai. Pimpri-Chinchwad host one of the biggest industrial zones in Asia comprising of auto-ancillary and IT services industries. With the city population growing at 7% annually, the Pimpri-Chinchwad Municipal Corporation (PCMC) has prioritized the improvement of water supply services by reducing physical losses in the distribution system and introducing management improvement measures.

Following the approval of PCMC's request for technical assistance in June 2011, CDIA consultants prepared a Medium-term Investment Plan (MTIP) for Urban Infrastructure Projects and PFS for 24x7 Water Supply Project from August 2011 to January 2012. The 24x7 project PFS report recommended: i) network strengthening and replacing faulty household connections; ii) management improvements including leak detection, staff training and equipment supply; and iii) other supporting activities including computerized maintenance management system.

PFS period	August 2011 – January 2012
Focus sector	Water supply
CDIA supported activities	- Development of integrated urban infrastructure investment program - PFS on water supply - Linking identified investments to financing particularly from private sector
L2F Status	Funded by Ministry of Urban Development

24x7 Water Supply Project: Progress as of 2016

The PFS-recommended pilot testing of leak detection at Premlok Park was carried out following the completion of CDIA's intervention in 2013 with USD250,000 funding support from the French Government. The pilot testing demonstrated the viability of a multi-stage expansion of the 24x7 Water Supply Project to cover the entire city. The first scaling up of this project was conducted in 2013 by PCMC using own financial resources in Yamuna Nagar, an area inhabited by middle to low income households from where PCMC received the most number of complaints regarding water supply. This pilot project was successful in providing 24x7 water supply services to nearly 8,000 households. However, the 24x7 water supply services were suspended in November 2015 by the PCMC, due to severe drought. To avert a serious water shortage in Pimpri, water service was brought back to 2 to 3 hours daily. The rainfall that came towards end of 2016 provided sufficient water in the reservoir and gradually stabilized the water service in the pilot area.



Fig. 12: Ongoing network improvement and pipe replacement works in line with 24x7 water supply PFS recommendations.

In line with the PFS recommendations, the PCMC introduced a planning and IT tool at its own cost known as the Supervisory Control and Data Acquisition (SCADA). This system helps to ensure efficient distribution of water supply and make projections on future needs. Moreover, the city adopted an integrated management information system that is able to generate an updated, dynamic asset inventory for water supply as well as GIS-based maps that are useful in communicating PCMC's plans, activities and performance to various stakeholders.

Encouraged by the successful pilot initiative in Yamuna Nagar, PCMC prepared and submitted a Detailed Project Report (DPR) requesting for funding support to the Ministry of Urban Development in 2014. In response, the Ministry committed IDN 120 crores (US\$22 Million) with half of the amount to be provided as grant for implementation of the 24x7 water supply project covering 40% of the city by December 2017. The long-term plan is to cover 60% of the city with 24x7 water supply by 2020.



Fig. 13: Residential areas in Yamuna Nagar benefited by piloting of 24x7 water supply

Intervention Results

Improved water supply in Yamuna Nagar. As the pilot area of the 24x7 water supply project, Yamuna Nagar saw the resolution of the main issue of low water pressure and as a result, households up to the third floor were able to get water 24x7. The leakages in the system were greatly reduced which resulted in increase in water pressure. The drought in 2015 provided a temporary setback but in the summer of 2016, the rainfall provided sufficient water in the reservoir for the resumption of 24x7 water supply.

Benefits to women. As a result of improved water supply services, the community particularly the female population was able to spend more time for productive activities and child care as they no longer have to manually fetch water in designated areas.



Fig. 14: Water treatment plant in Pimpri.

Linking the project to funders for service expansion.

Inspired by the PFS, PCMC prepared the Detailed Project Report to access funding from the Ministry of Urban Development (MoUD). This resulted in a firm commitment from MoUD under the Jawaharlal Nehru Urban Renewal Mission (JNNURM) to fund the project expansion to 17 zones covering 40% of the city by December 2017.

City-to-city learning.

Because of the success of 24x7 initiative, other cities within India, e.g., cities from Karnataka, Tamil Nadu and Gujarat, visited Pimpri to learn from the project experience. Likewise, cities from other countries (e.g., China and Korea) came to Pimpri to know more about Pimpri's 24x7 water supply model including Pimpri's IT-assisted monitoring system and approach to projecting future water demand.

Conclusion and Lessons Learned

CDIA's assistance to Pimpri on the MTIP and PFS has been reaping modest benefits for city residents in Yamuna Nagar through the piloting of 24x7 water supply system. Starting from the pilot leak detection program recommended by the PFS, the 24x7 water supply initiative progressed towards expansion of the project to cover 40% of the city with the successful linking of the project to financing. Following the recommendation of the CDIA-supported PFS on 24x7 water supply, the PCMC has introduced IT-based solutions (e.g., SCADA) which has proved to be useful in improving management of water services in the city particularly planning for efficient water distribution and making projections of the city's future water needs.