

23. Challenging Case: Water Supply Project, Mysore, Karnataka, India



Photo Credit⁵⁰

Background

Uninterrupted access to tap water remains a luxury for some Indians, as many water supply systems in India suffer from inefficiencies stemming from leakages and inadequate maintenance. This results in significant costs for Indian households, due to the need to invest in water storage tanks and filters as a backup in case of interruptions to piped water supply.

Starting in 2004, the Government of Karnataka (GoK), together with the World Bank, launched the Karnataka Urban Water Sector Improvement Project (KUWASIP). The project, first piloted in three cities in Karnataka, was aimed at reforming the water supply and sanitation sector in Karnataka state. Based on the initial success of the program, the GoK replicated the project in other cities in Karnataka, including Mysore in 2008.

Project Structure

A six-year concession to rehabilitate Mysore's century-old water supply system and oversee its operation and maintenance was awarded to Jamshedpur Utilities and Services Co. Ltd. (Jusco) in November 2008 through an open bidding process. The project was valued at INR 1.64 billion (USD 23.4 million). The government's Jawaharlal Nehru National Urban Renewal Mission financed the project, requiring no investment from the private company. The project comprised three phases: one year of preparation, three years for rehabilitating the system, and another two years for operation and maintenance.

According to the agreement, the public sector (Mysore City Corporation and the GoK) was responsible for pricing and disconnecting illegal water connections, with help from the private company to survey and map out the illicit connections in the city. The private company was responsible for operating and maintaining the system, as well as collecting fees from consumers

and then handing these funds over to the public sector. The agreement also stipulated performance clauses, under which the private company would be entitled to bonuses for strong performance. Accordingly, financial, pricing and demand risks were borne by the municipality. Responsibility for operation and maintenance was assumed by the private operator, while both parties would share the technical risk.

Lessons Learned

After Jusco took over the water supply system in Mysore, revenue collection improved from INR 160 million (USD 2.3 million) in 2008-09 to INR 250 million (USD 3.6 million) in 2011-12. In January 2013 alone, the revenue reached INR 230 million (USD 3.3 million). Jusco has also identified 70,000 illegal connections. Of these, Mysore City Corporation has regularized 19,000.

However, the project later encountered the following challenges:

- There were discrepancies between the data in the original agreement and what was found by Jusco through its survey. The agreement stated that the network of pipelines was over 910 km with 117,000 connections, while in fact the pipeline network was 1,910 km with 174,000 connections. The discrepancies have caused changes in the scope of work and increased the estimated cost of the project, leading to a renegotiation process.
- The municipality seconded the employees of Vani Vilas, the city's existing waterworks department, to work under Jusco, but there have been reports of conflict between Jusco and the employees of Vani Villas.
- In part due to the issues discussed above, project implementation was slower than expected. The new system was only able to connect 61,000 of the 174,000 identified households. Of the 61,000, only 13,000 homes are receiving continuous water supply.

⁵⁰ Maksym Kozlenko (https://commons.wikimedia.org/wiki/File:Brass_water_tap_in_park.jpg), <https://creativecommons.org/licenses/by-sa/4.0/legalcode>

- In 2012, protesters urged the city to cancel its agreement with Jusco. Their concerns centered on insufficient access to drinking water, unsatisfactory progress in the modernization project, and high water bills.

This project highlights the following:

- A well-structured PPP should ensure that both parties have appropriate incentives to ensure the long-term success of the project. In this case, the private company did not directly invest in the project and so had little incentive to protect and renegotiate the project contract after discovering the data discrepancies.
- If public employees will be transferred to management by the private partner, the municipality should closely engage with these stakeholders and carefully consider how best to facilitate this transition.
- Pricing must always be determined in an equitable and transparent manner, with due regard for the willingness and ability of end-users to pay. Public opinion, in this case expressed through protest, was that the higher water bills were not justified by improved service levels, leading to dissatisfaction among the population.⁵¹

Wastewater Treatment

24. Waste Water Treatment Plant, Udaipur, India



Photo Credit⁵²

Background

Udaipur, a city located in the water-scarce Indian state of Rajasthan, is an economically dynamic city and a popular tourist destination. Before 2012 Udaipur city produced, on average, around 70 million liters of sewage per day. Due to the city's inadequate wastewater infrastructure, the city was struggling to maintain the cleanliness of its lakes, which were being contaminated by the raw residential sewage. In September 2012, a court order was issued to hotels and the municipality to deal with the problem. The local authority decided to pursue a PPP to deliver the infrastructure needed to comply with the court order.

Project Structure

In 2012, a 25-year PPP contract to develop the city's first Wastewater Treatment Plant (WWTP) was executed between Hindustan Zinc, a major corporate zinc mining company, and the local government authorities, including the Udaipur Municipal Corporation and Rajasthan State-Owned Urban Improvement Trust. From the publicly available sources, the project appears to have

originated as an unsolicited proposal initiated by Hindustan Zinc, whose involvement in the project was apparently motivated primarily by its goal of finding options for additional water resources that would reduce its dependence on freshwater extraction, as well as its efforts to increase production and sustainability.

The private partner undertook to design, build, own, and operate the WWTP for the full term of the contract, after which it would be transferred to the Government of Rajasthan in 2039. The private partner was also responsible for fully financing the investment cost of the new WWTP (estimated at USD 27 million), land acquisition, and construction of the WWTP and the 78 km pipeline linking the WWTP with the industrial complex. The local government contributed 70 percent of the cost for the pipeline connecting the city's sewerage system with the WWTP. From the publicly available sources reviewed, it is unclear what entity contributed the remaining 30 percent of the cost of this pipeline or is responsible for its operation and maintenance. The WWTP was expected to have the capacity to

⁵¹The World Bank. 2013. "Karnataka: Three Towns Pilot 24/7 Water Supply." The World Bank. Accessed May 21, 2019. <http://www.worldbank.org/en/news/feature/2013/01/01/karnataka-three-towns-pilot-water-supply>;

Yousaf, Shamsheer. 2013. "Mysore's 24x7 water project falls short of targets." *Live Mint*, March 26, 2013. Accessed May 21, 2019. <https://www.livemint.com/Politics/veuBt9zArpvuusysCLntK/Mysore-24x7-water-project-falls-short-of-targets.html>.

⁵²TeshTesh (https://commons.wikimedia.org/wiki/File:Udaipur_views_Rajasthan_India_2015.jpg), <https://creativecommons.org/licenses/by-sa/4.0/legalcode>