



## Case Study

**23723**

December 2000

### Water and Sanitation Program

An international partnership to help the poor gain sustained access to improved water supply and sanitation services

## The Cancellation

## of Water and Sewerage Project

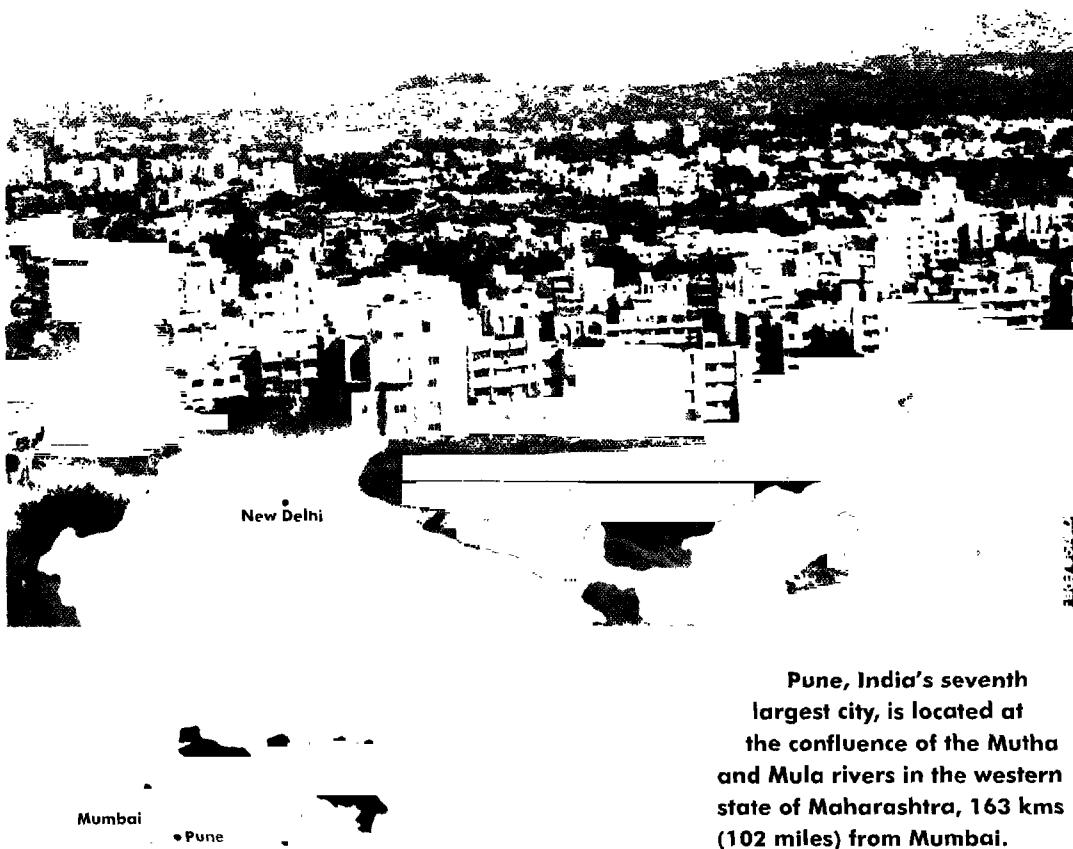
## Sewerage Project

### South Asia Region

#### SUMMARY

In 1998, the Pune Municipal Corporation attempted to implement an urban environmental infrastructure project, valued at approximately Rs 7.4 billion (US\$185 million), through construction and management contracts with a private sector firm. The project was an integral part of a 25-year strategic plan which aimed to gradually extend, to the total population, a 24-hour water supply and sewerage service. This groundbreaking partnership was also designed to ensure that Pune remained an attractive economic destination for investors. Had it succeeded, it would have provided a model for other cities in India seeking to improve services through private sector partnerships. The project was canceled for a number of reasons, but the most critical was a loss of political support.

This case study seeks to analyze the challenges faced in the preparation of the project, many of which are illustrative of the obstacles to water sector reform, including increased private sector participation, in South Asia.



Pune, India's seventh largest city, is located at the confluence of the Mutha and Mula rivers in the western state of Maharashtra, 163 kms (102 miles) from Mumbai.

(Not to scale)

# Historical and Political Background

Pune, India's seventh largest city, is located at the confluence of the Mutha and Mula rivers in the western state of Maharashtra, 163 kms (102 miles) from Mumbai. It has a strong industrial base traditionally rooted in automobile manufacture but more recently attracting major investment in the information technology sector. River water is readily available and the Pune Municipal Corporation (PMC) supplies 240 liters per capita per day. Though shortages are rare, there are problems with high levels of unaccounted for water, intermittent supply, low pressure, limited sewage treatment, rising river pollution and, most urgently, the need to extend the service network to include the 800,000 inhabitants of 36 villages added to the PMC jurisdiction in 1997.

In 1996, against a background of national economic liberalization and increasing public/private sector partnerships, the PMC initiated a water supply and sewerage project valued at Rs 7.35 billion (US\$ 185 million).

## PUNE FACT FILE

**The Pune Water Supply and Sewerage project area included**  
Pune Municipal Corporation (PMC), Pune Cantonment Board (PCB), Khadki Cantonment Board (KCB), 36 villages merged in 1997 (which represent 63% of the total project area)

**Estimated population of the project area**

2.0 million in 1991; 3.0 million in 2001; 6.6 million by 2025

**Largest population growth predicted in the 36 villages**

0.3 million in 1991; 0.8 million in 2001; 2.9 million by 2025

**444 slum settlements**

within the project area with an estimated population of 0.7 million in 1996

The project design was based on the city's long-term strategic planning to the year 2025; it aimed to remedy existing deficiencies while at the same time meet expected future demand resulting from growth in and around the city. The objectives were to provide 100% water coverage and an uninterrupted supply, 100% sewage collection and treatment and a program of water recycling for irrigation purposes. Management services and a new venture in billing and collection were to be included in addition to the construction phase of the project. The feasibility report proposed a three-phase implementation, the first phase of which would be implemented in partnership with the private sector. In March 1997, the High Powered Committee for Privatization of Infrastructure of the Government of Maharashtra (GoM) approved proposals to invite competitive tenders from the private sector. On October 7, 1998, two weeks before tenders were due to be opened and the contract awarded, the Pune Water Supply and Sewerage Project was unexpectedly canceled.

## The Main Features of the Proposed Contract

Project preparation began in April 1996 and by March 1997 both the Standing Committee of the PMC and the High Powered Committee for Privatization of Infrastructure of the GoM had approved proposals to invite tenders from the private sector. Throughout the project development process technical assistance was provided to the PMC by:

◆ **Indo-US Financial Institutions Reform and Expansion Project - Debt Market Component (FIRE-D)** - overall project development manager; conducted a detailed review of

the city's finances and investment capacity; an assessment of the impact of different budgeting and financing scenarios on the project implementation; prepared the Request for Proposal documents and provided overall support during the bidding process;

◆ **Kirloskar Consultants** - drafted the technical report and assisted in preparation of the Request for Proposal documents;

◆ **Nishith Desai and Associates** - legal advisors; and

◆ **IDFC (Infrastructure Development Finance Company)** - financial advisors.

Had the project reached an operational stage, it would have been implemented through three different contracts awarded jointly to one selected contractor. These were:

◆ **Construction Contract** - a fixed price, fixed time (36 months) contract for the design, procurement and construction of a water treatment plant, improvement of existing sewage treatment plants and the laying of water and sewerage pipelines to improve the existing system and extend the network to the newly added areas of the city.

◆ **Operations and Management Contract** - to begin on completion of the construction work and cover selected facilities for a five-year period. The contract included treatment and distribution of specified quantities of drinking water; treatment of specified quantities of wastewater; and the establishment of a water quality-monitoring program. The contract contained performance-based penalties and incentives.

◆ **Billing and Collection Management Contract** - a five-year contract designed to develop and manage billing and collection of water charges in selected zones, covering roughly one-third of the total network; to develop a database for all connected properties; and to establish a consumer rights office. The contract contained performance-based penalties and incentives in



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**Low income settlements along the Mula Mutha river near Karve Road in Pune.**

of return to the private operator at the expense of the consumer. This attitude again underlines the need for sector-wide debate, at national as well as local levels, on what is regarded as an acceptable rate of return and what is the best way to measure it and regulate it.

The fact that there was at least one international company in each of the bidding consortia reflects the ability of reform-minded municipalities to attract international operators. However, this same interest also raised fears among local contractors, who have little expertise in operating and managing water systems, and consequently felt threatened by the arrival of more experienced operators. The hostility of local contractors ignored the fact that **international firms will rely heavily on local**

**people to reduce costs;** this project would have been a good opportunity to strengthen and build the capacity of local industry.

Urban development continues in a haphazard manner without the benefit of planned infrastructure and water problems for the 36 villages are growing. The economic costs and the impact of poor and deteriorating living conditions resulting from these delays and inaction remain to be quantified.

The ability of the private sector to reduce costs through efficiency savings has not yet been demonstrated in any major project in India; Pune could have provided such a cost comparison had the private operator succeeded in keeping costs down.

**References**

**Dandedkar H.C. and Sawant S.B.** 1998. "Housing needs in new suburbs of Indian metropolii – Case study of Kothrud, Pune." In *Economic and Political Weekly*, Nov. 1998. New Delhi.

**Cuttings from Indian Express** (Pune Edition). September-October 1998.

**FIRE (D) Project.** June 1998. *The Pune Water Supply and Sewerage Project: Focus on Private Sector Participation.* Project Note.

**FIRE (D) Project.** November 1999.

Constraints to developing commercially viable urban environmental infrastructure projects. Project Note.

**MASHAL.** 1997. *Pune Municipal Corporation – Environment Status Report, 1996-97.* Pune.

**PMC.** 1997. *A Bird's Eye-view.* Booklet. Pune Municipal Corporation.

**PMC.** April 1998. *Project Report, First Phase of Water Supply and Sewerage Project.* Pune Municipal Corporation. Volume 11, Request for Proposal Documents.

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The Water and Sanitation Program is an international partnership to help the poor gain sustained access to improved water supply and sanitation services. The Program's funding partners are the Governments of Australia, Belgium, Canada, Denmark, Germany, Italy, Japan, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, and the United Kingdom; the United Nations Development Programme, and The World Bank.

## PROJECT HISTORY

April 1996	Internal PMC feasibility report prepared. The Standing Committee gives the go-ahead for private sector bids, to solicit domestic and international financing and to go to the High Powered Committee on Privatization of Infrastructure (Government of Maharashtra).
April 1996-March 1997	Plans presented to 3 or 4 informal meetings of the elected councilors of Pune.
July 1996-Jan 1997	FIRE collaborates with PMC in preliminary project preparation.
Jan-Feb 1997	Kirloskar appointed to prepare a detailed feasibility report.
March 1997	The High Powered Committee on Privatization of Infrastructure of the Government of Maharashtra approves the project and authorizes competitive proposals from the private sector. PMC invites expression of interest from private sector. 30 companies respond; 14 are short-listed.
April 1997	Issue of project documents to short-listed companies. Meetings and site visits arranged.
May 1997	Submission of pre-qualification documents.
June 1997	6 consortia pre-qualify.
October 1997	Local elections in Pune change the composition of the General Body of Elected Councils.
July 1997-Feb 1998	Preparation of technical reports, discussions with all interested parties and definition of project structure. Note on financial implications of project submitted as part of budget for 1998-1999; meetings held at state level.
Feb 1998	High Powered Committee requests approval of the state cabinet.
March 9, 1998	Cabinet approval; grant aid from Government of Maharashtra; tax exemptions result in savings of Rs 70 crore; approval of the issue of the Request for Proposal (RFP).
March 31, 1998	Issue of RFP on April 28, 1998. Rs 70 crores set aside to meet contract payments approved by the Standing Committee.
March-April 1998	National elections result in change of political alliance at the local and state level.
April 1998	Pune Municipal Commissioner transferred on April 24; issue of RFP on April 28. 6 companies submit applications.
May 30, 1998	Pre-bid conference.
June 1998	Deadline for technical and financial submissions extended to October 22. 3 to 4 bids expected.
October 7, 1998	Project canceled.

addition to specifying the fixed management fee payable for minimum collection targets. The experiences generated by this contract would have formed the basis for long-term policies on tariff structures, metering and incentives for prompt payment.

All three contracts would have been managed on a day-to-day basis by a Project Management Unit (PMU) chaired by the Additional City Engineer with cross-departmental representation; but to oversee implementation of the construction contract it was envisaged that an independent engineer would be appointed who would report directly to the head of the PMU. A Project Steering Committee (PSC) consisting of the Municipal Commissioner, the head of the PMU, nominees of the GoM, and other independent members would have provided general management and administrative guidance and been responsible for establishing penalties and incentives and negotiating variations in the contract.

There was a good response to the

initial notice of interest issued in March 1997. Eleven firms were short-listed and eventually six consortia, each including at least one international partner, passed the technical pre-qualification stage. Invitations to bid were issued on April 28, 1998. The tender submission date, originally fixed for July 30, 1998, was later postponed to October 22, 1998. However, despite the strong private sector interest and the fact that the process was far advanced, the project was canceled.

## Proposed Project Financing

A mix of internal and external funding was planned for the project with the PMC guaranteeing one-third of the cost from public funds (23.3% grant assistance from GoM and 10% from PMC) and two-

thirds from private investments. The responsibility for the latter lay with the contractor whose bid proposals would have contained a Plan of Finance designed to capture the best financing options for the project from national and international sources. The bidders were able to include any of the several sources of finance for which the PMC had already received a commitment, namely:

- ◆ An AA credit rating for a Rs 2 billion (US\$ 50 million) municipal bond issue.
- ◆ Housing Guaranty Funds from USAID through the FIRE(D) project.
- ◆ In-principle commitments for loans from the Industrial Credit Investment Corporation of India (ICICI) for Rs 3 billion (US\$ 75 million) - (the first instance of such a commitment for an urban project from ICICI) - and from HUDCO for Rs 2.25 billion (US\$ 56 million).

The PMC had proposed the establishment of a Water and Sewerage Project Fund (WSPF) underwritten by Octroi (duty on goods and vehicles

Municipal Commissioner today formally canceled the tenders of the controversial Rs 735 crore water supply and sewerage project...His decision comes in the wake of the unanimous rejection of the project by the general body of the corporation last month...All members of the corporation, cutting across party lines, had vehemently opposed the project...arguing that the cost of the project was exorbitant and the project had not taken into account the existing machinery and infrastructure on which the corporation had spent crores of rupees.

Indian Express  
Oct. 8, 1998

entering the city), which accounted for 45% of the municipal revenues.

Substantial tariff increases had been proposed by the PMC including:

- \* 25% increase in water charges for domestic users (from Rs 2 per cu m to Rs 2.5 per cu m).
- \* 43% increase in the annual fee levied on standpipes in slums (from Rs 175 to Rs 250).
- \* The Standing Committee rejected a proposal to index water charges to electricity prices and to increase tariff levels by 50% to capture normal inflationary rises since 1994, the date of the last tariff increase.

Project costs were estimated at Rs 4.27 billion (US \$106 million), a figure known as the base cost. But in order to address all likely risks, and in keeping with internationally accepted good practice, the actual cost estimates used, Rs 7.35 billion

(US \$185 million), were adjusted to ensure that funds would be available to absorb likely inflationary rises, price escalation and time and cost overruns. The contract was to have been awarded on the basis of the lowest bids for the total cost of the three contracts; it was confidently assumed that the competitive bidding process, access to international credit, and the proven ability of the private sector to reduce costs through efficiency measures would produce significant savings on the project cost estimates; this assumption was strengthened by recession in the construction industry. In any event this assumption could not be tested as the project was canceled.

Suhas Kulkarni, BJP leader in the PMC, submitted a letter to the Chief Secretary demanding a judicial inquiry to probe whether the tenders issued by the PMC were as per the government resolution dated May 27, 1998 or not. It may be recalled that members of the corporation had alleged that when the state government had sanctioned the project on May 28, how is it that the PMC has issued tender notices and forms on April 27, 1998 without taking the general body's approval.

Indian Express  
Sept. 21, 1998

an influential local politician, who had initially supported the project, changed his stance. Critics began to question the viability of the scheme, the overall cost and the process used to award tenders to the private sector. The transfer of the Municipal Commissioner in April 1998, which left the project without a local champion, was considered by many to be a response to this growing vocal criticism.

However, political support from the state had also begun to waver with some ministers taking a negative stand against the project. Against this background of rising political opposition, the new Municipal Commissioner decided to cancel the project. The estimated costs were also cited as a reason for canceling the project.

The implication that high project costs were designed to ensure a high rate of return to the private operator at the expense of the consumer reflects the concern and suspicion

## HOW HAVE THE PROJECT HAVE ADDRESSED THE NEEDS OF THE SLUM DWELLERS?

The project did not directly address the issue of Pune's 700,000 slum dwellers who would have received only a marginal share of the total project investments. However, the network was designed to reach the entrance of every slum to ensure speedy access for the inhabitants when funds became available. It was envisaged that responsibility for individual connections would then rest with the municipality, not the private operator. But the project was an integral part of the long-term urban-infrastructure plan, designed to enhance the image of Pune as a forward-looking city, able to attract national and international investment with the certainty of a reliable, good quality, uninterrupted water supply. Such investments would have had a positive impact on the economic fortunes of the area with knock-on effects for increased employment opportunities and access to better standards of living for those in the poorer peri-urban villages.

The Water Supply Minister Anna Dange today instructed the Pune Municipal Corporation to stop the tender procedure and to take prior approval of the general body before initiating the project again.

Indian Express  
Sept. 22, 1998

with which some politicians view private sector involvement in the public sector in India.

Opponents also argued that the failure to consider alternative cost saving options, such as improving the existing network and streamlining management procedures, called into question the competency of the technical consultants appointed to assist the PMC in project preparation.

Local contractors were hostile to the idea of international firms being awarded the contract and they used their political influence to protect what they saw as their own interests.

As part of the project preparation phase, the PMC had already increased water charges. This measure attracted criticism, despite the approval of tariff adjustments by the Standing Committee. Tariff issues may in fact have been a smoke screen used to impede the project, nevertheless tariffs remain a fundamental issue in India where cost recovery in the water sector is weak.

Describing the total project cost as "highly exorbitant", Kulkarni said the cost should be Rs 540.08 crore (US\$ 135 million), going by rates standardized by the Maharashtra Jeevan Pradhikaran (MJP – the official agency of the state government to check and scrutinize water supply and sanitation projects). "Who is responsible for the additional financial burden of Rs 200 crore (US\$ 50 million)?" he asked.

Indian Express  
Sept. 21, 1998

There was considerable opposition to the high debt burden which the large loans for the project would have entailed and some critics argued that such an expensive undertaking would siphon off funds earmarked for other, equally important, social programs.

## Lessons for South Asia

**T**here are several important lessons that can be drawn from the Pune experience:

- ◆ **Credible and consistent political commitment at a high level is essential** if the window of opportunity is to be opened to private sector partnerships. Innovative developments in the water sector, especially in relation to improving services for the poor, involve high political risks. This requires capacity building among elected representatives, and most crucially, civil society, in order to constructively debate the issues. Having a strong local champion, in this case the Municipal Commissioner, is not enough.
- ◆ The kind of scrutiny to which the PMC has been subjected indicates the need for municipalities to be really well prepared when embarking on a public/private sector partnership. The failure of the project reflects the need to have a structured, continuous and focused consultation process that keeps all stakeholders abreast of developments. The debate in newspapers during June to October was one-sided and politically driven, with little input from officials closely involved with the project. The absence of a well-managed public relations office resulted in poor media management and a lack of accurate well-informed debate in the public arena.
- ◆ The project planners did not make the most of the opportunity to address the needs of the poor through the design of the bidding process and the obligations put on the operator through the contract. Experience in other countries shows several ways in which this is possible (see the WSP-SA series on 'The Private Sector Serving the Poor'). In the case of Pune, addressing the needs of the poor was not a high priority for the project, and it does not appear to have been a factor in either the project's initial support nor its subsequent cancellation. Other cities planning similar private sector arrangements should ensure that the poor receive more attention in the planning stages, and that the advantages for the poor are seen as important reasons for providing political and popular support.
- ◆ It is debatable whether there are enough Indian consultants experienced enough to meet the high international standards expected in this sort of project, given the political sensitivities surrounding privatization processes, the need for openness and transparency, the development challenges and the range of financial needs. This constraint may well prove problematic in other South Asian countries that, so far, have little experience of large-scale privatization ventures.
- ◆ The establishment of an independent regulatory authority or at least clear guiding principles could have resolved some of the problems faced in Pune. **Debate at the national, state and municipal level on sector priorities and objectives is a crucial first step** in the development of guidelines that can be followed by urban local bodies seeking to utilize the expertise of the private sector; such debate will start the process of building up a clear legal and regulatory framework.
- ◆ **Private sector involvement depends on the operator being able to make some profits in addition to recovering costs.** Critics argued that the high project costs were designed to ensure a high rate