

Project Notes

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The Pune Water Supply and Sewerage Project: Focus on Private Sector Participation

The Pune Municipal Corporation recently issued a Request for Proposals to implement an urban environmental infrastructure project valued at approximately Rs. 7.4 billion (US\$185 million). The implementation structure for this project is unique in the water and wastewater sector due to its size and the fact that it will be realized through construction and management contracts with a private sector firm. It is also unique in that it has introduced new financial institutions to the urban infrastructure sector in India. This Project Note describes the Pune project with a focus on these innovations in private sector participation and urban infrastructure finance.

The Pune Water Supply and Sewerage Project has been designed based on the city's long term strategic planning to the year 2025. Thus, it expects to meet existing deficiencies as well as cater to future demand due to growth in and around the city. Over the course of its implementation, the city will move steadily toward 24-hour water supply and maintain coverage of 100 percent of the population. Access to sewage collection will also be increased to 100 percent and the city expects to achieve full treatment of all sewage generated. Recycling of water will also be provided for irrigation purposes.

The Pune Municipal Corporation (PMC) has decided to implement this project in partnership with the private sector. In this partnership, however, the role of the private sector does not conclude with the construction phase. It includes management services as well, for the operations and maintenance of the new facilities and for the implementation of a demonstration program in billing and collections in a selected zone of the city.

In addition, the contractor is expected to prepare a Plan of Finance and participate with the PMC in structuring a "best-cost" financing package for construc-

tion of the facilities. It is in this broadened role for the private sector, in a water and sewerage project of this magnitude, that the Pune Project offers an innovative model.

This Project also represents a major breakthrough in developing an urban environmental infrastructure project in a commercially viable and bankable format. This has been achieved by structuring the project within a larger urban finance framework, and to ensure commercial viability, prudential budget norms have been used. Further, adequate attention has been paid to a framework of private sector participation which will avoid cost and time overruns. The PMC has undertaken a detailed risk mitigation and management plan to ensure overall bankability of the project. It is this extensive preparation that will ultimately ensure the commercial viability and bankability of the Pune project.

Project Development Support from the Indo-US FIRE(D) Project

Throughout the process of project development, the PMC has received technical assistance from the Indo-US FIRE(D) Project — to prioritize investments, con-

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duct financial analysis and identify options for implementation. Cooperation began with the production of an Environmental Status Report for the city -- with support from the National Institute for Urban Affairs and MASHAL, a local NGO -- that helped identify the city's urban environmental management challenges in different sectors. This was followed by a detailed assessment of the city's finances and investment capacity, including a revenue enhancement strategy, prioritization of the city's proposed investments and the impact of different budgeting and financing scenarios to arrive at a viable scale of investment.

The project development process has emphasized the participation of elected representatives as well as the Government of Maharashtra (GoM). Project preparation began with initial approvals from the Standing Committee of the PMC and the High Powered Committee of the GoM for Privatization of Infrastructure. During the process, the PMC also utilized the services of other consultants and advisors, including Kirloskar Consultants as technical advisors, Nishith Desai and Associates as legal advisors, and the Infrastructure Development and Finance Company (IDFC) as financial advisors. In addition, the FIRE (D) Project team has worked with the city throughout this process to advise on the overall project development process, to prepare the Request for Proposal (RFP) documents and to provide overall support during the bidding process.

Involving the Private Sector

Once the technical and financial aspects of the project were defined, the PMC issued a notice in March, 1997 inviting "Expressions of Interest" from private firms qualified to undertake this range of project-related activities. A large number of national and international firms expressed interest, and from among these, eleven were short-listed. Eventually six consortia, each including at least one international partner, were pre-qualified to bid on the project.

In April, 1998, each of the consortia received an invitation to bid on the project, based on a five volume RFP that includes instructions to bidders, the project report and drawings, and the contract documents which give conditions, scope and specifications for each of three contracts to be let. The final volume of the RFP includes bidding schedules and forms. The RFP documents, prior to issuance, were reviewed extensively by all the advisors as well as selected financial institutions. Proposals are due in September, and work is expected to begin by December 1998.

The project is expected to be implemented through three different contracts which will be awarded jointly to one selected contractor. The contractor will also be responsible for the Plan of Finance as discussed below.

Contract #1: Construction

The first of the three contracts encompasses the construction to be carried out during the first phase at an estimated cost of Rs. 7.4 billion. The contractor and the PMC will enter into a fixed price, fixed time (36 months) contract for the design, procurement and construction of a number of facilities. Broadly defined, the construction work will include the construction of a water treatment plant and several sewage treatment plants; laying of close conduit lines for transmission of raw water; laying of a sewage conveyance system; and the extension of the distribution and collection systems to the newly added areas of the city. The contractor will also provide necessary improvements to the existing systems and develop a city level management plan for reducing unaccounted-for water.

Contract #2: Operations and Maintenance

Upon completion of the construction work and commissioning of the new facilities, a five year contract will be let with the same contractor for operations and maintenance of selected facilities in the city to include predictive, preventive and corrective actions. The operator is required to treat and deliver specified quantities of drinking water, and to treat specified quantities of wastewater and effluent. To ensure that drinking water and wastewater standards are met, the contractor will implement a water quality monitoring program. This contract provides for both penalties and incentives based on contractor performance.

Contract #3: Management of Billing and Collections

The five year contract for development and management of billing and collection of water charges will be operationalized in a selected zone of the city which covers a third of the total system. The contract will include development and operation of databases on properties and connections; development of a billing and collection system; and development of a customer services and grievances redressal system. The contractor will implement and operate these three systems and ensure specified minimum collection targets for a fixed management fee. Additional collections will provide incentives for the contractor. On the basis of this experience, the contractor will provide assistance to the PMC in drafting medium and long-term policies on tariff structures, metering and incentives for prompt payment.

Project Financing and Security Arrangements

Unlike other core infrastructure projects, the Pune Project is positioned within a larger urban finance framework and not within the conventional project finance structure. It is necessary, therefore, to consider the totality of municipal finances in the analysis of financial viability. This wider framework of analysis is appropriate, given the priority that is placed on the

water and sewerage sector. Over the past years, buoyant sources of revenue and significant revenue surpluses have enabled the PMC to finance most of its investments through its own internal resources. As a result, the Corporation has a relatively low level of outstanding debt, and therefore, a sizable future debt servicing capacity. The PMC has undertaken detailed financial viability analysis of the proposed project using prudential norms for budget performance, to ensure a debt service coverage ratio of at least 1.5 throughout the debt servicing period. To achieve this, the PMC has decided to revise its water charges and adopt indexation linked to electricity prices.

billion municipal bond issue, and ANZ Grindlays and JM Financial Consultants have been appointed as the investment bankers by the Corporation. Out of this planned amount, the PMC expects to develop a structured debt obligation of up to Rs. 1 billion specifically for this project, which is expected to be of 7 year tenure.

The PMC has also received a commitment of USAID Housing Guaranty (HG) Funds through the FIRE(D) Project. Under the HG Program, USAID would provide a loan guaranty for debt to be issued by an Indian financial intermediary. These funds, up to \$25 million,

Estimated Cost and Financing Plan for the Pune Project (in Rs. billion)

Total Estimated Costs

Base Cost at 1997/98 Prices	4.260
Other Costs (escalation, contingencies, management fees)	1.658
Interest during Construction and Other Financing Costs	1.432
Total	7.350

Preliminary Financing Plan

PMC Contribution and Grants from GoM	2.450	(33.3%)
Debt Resources	4.900	(66.7%)

Potential Debt Sources Arranged by the PMC (In-Principle Commitments)

HUDCO (through Indo-US FIRE(D) Project and HUDCO resources)	up to 2.250
ICICI (syndication loans from financial institutions and commercial banks)	up to 3.000
HDFC	(under appraisal)
Bank of Maharashtra	(under appraisal)
Municipal Bonds (with 'AA' rating)	1.000

Financing the Pune Project

Financial resources to support this project are expected from a variety of internal and external sources. For its part, the PMC has pledged that up to one third of the funding will come from its internal resources and grant funds from the state of Maharashtra. The remaining two thirds, however, will come from debt resources mobilized for the project. The contractor is responsible for developing the Plan of Finance to mobilize these resources. The Plan of Finance will be designed in consideration of the PMC's overall debt servicing ability, and must reflect a minimum debt service coverage ratio of 1.33 on fund balances in the proposed project fund for each year until all the debt is repaid.

In structuring the remaining two thirds, bidders may choose to use any of the several sources for which the PMC has already obtained an in-principle commitment. The PMC has received a credit rating of AA for a Rs. 2

would be routed through the Housing and Urban Development Corporation (HUDCO) and would have a maturity of 30 years.

In addition the PMC has sought to raise domestic institutional finance, and it is in this area that the Pune Project also breaks new ground. In addition to an in-principle commitment from HUDCO for loans up to Rs. 1.25 billion, new financial institutions have been brought into the urban infrastructure sector. Specifically, Industrial Credit and Investment Corporation of India (ICICI) has provided an in-principle commitment to arrange for a loan syndication of up to Rs. 3 billion from other financial institutions and commercial banks. The project is also being reviewed favorably by the Housing Development and Finance Corporation (HDFC) and the Bank of Maharashtra for long term loan assistance. Funds from domestic financial institutions are expected to be of 12 to 15 year tenure.

Security Structure

The main security for the debt which will be mobilized to support this project will be a charge on selected revenue streams of the PMC, which will be escrowed in a Water and Sewerage Project Fund (WSPF). Structured payment mechanisms for depositing funds in the WSPF will be monitored by a trustee. Grant receipts, designated revenue transfers and debt mobilized for the project will be deposited in this fund during the construction period. Then, during the operations phase, designated revenue streams will be transferred to this fund for debt servicing and for meeting the management fees for operations and maintenance and billing and collections. Specific revenues to be transferred to the fund are likely to be a portion of octroi and water charges. Sub-funds as well as flow of funds from the WSPF will be specified. The PMC has requested the new infrastructure entity IDFC to design and set up the project fund. IDFC will also assist the PMC in developing other credit enhancement measures if necessary.

In addition to the above, the PMC may also consider mortgage of property (specifically for municipal bonds) and guaranties by the GoM for other debt resources materialized for the project. The PMC has already received GoM approvals in this regard. The GoM guaranty will also indirectly help to provide security against any changes in municipal legislation, such as abolition of octroi, which may materially affect project viability or the credit risk.

Conclusion

The Pune Water Supply and Sewerage Project represents a new course for private sector participation in the water supply and sewerage sector in India. In addition, it incorporates new innovations in billing and collections, and in leak detection and the reduction of unaccounted-for water. And finally, it has succeeded in bringing new financial institutions into the urban infrastructure sector in India. As potential private sector partners prepare bids over the next several months, the city of Pune looks forward to implementing a project that will extend water supply and sewerage services to its total population, increase efficiency and lower costs for the next quarter century. It will also help Pune to retain and improve its competitive advantage as an economic destination relative to other emerging metropolises in India. And from a broader perspective, it provides a benchmark for project development which will help other cities improve urban environmental services through private sector participation.

Indo-US Financial Institutions Reform and Expansion Project - Debt Market Component FIRE(D)

The objective of the Indo-US Financial Institutions Reform and Expansion (FIRE) Project, funded by the U.S. Agency for International Development (USAID), is to support the Government of India in its efforts to strengthen domestic capital markets to enable them to serve as efficient source of development finance. The Debt Market/Infrastructure Component (FIRE-D) pursues this goal through the development and financing of commercially viable urban environmental infrastructure projects; by channeling USAID Housing Guaranty funds to selected demonstration cities and states; and through policy advocacy, management support, technical assistance, training and research.

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