

Project Notes

Note No. 2
January
1998

The Ahmedabad Water Supply and Sewerage Project

The Ahmedabad Municipal Corporation plans to undertake a major investment program for water supply and sewerage services which will address existing deficiencies as well as the demand for services in the future. The Corporation also plans to undertake a capital investment program for other services including solid waste management, roads, bridges and slum improvement. And it will finance these investments, in part, through India's first municipal bond issue. This investment program is the culmination of a progressive program of administrative and financial reform within the Corporation itself, and a partnership developed between the United States Agency for International Development (USAID), the FIRE Project, and the Ahmedabad Municipal Corporation.

Project Profile

The proposed investment program includes expansion and improvement of water supply and sewerage services within the old city limits as well as newer areas that have been added in recent years. The main components of the water supply project include:

- * Source Development through a series of two french wells and sixty bore wells
- * Conveyance System
- * Additional underground storage and pumping stations
- * Transmission Lines in seven new areas
- * Augmentation of the existing distribution system in fourteen areas.

The plan proposes to allocate water to customers at 180 lpcd in the AMC/West, and 150 lpcd in the AMC/East. With these allocations, the present supply shall be ensured to the old AMC limits, and in the case of the recently extended East, the supply would be enhanced.

The proposed sewerage project will provide sewerage collection, treatment and disposal facilities to a part of East Ahmedabad which is currently unserved. A sewerage project in the developed part of East Ahmedabad will be implemented under Phase II, a short term plan, between 1997 and 2001.

The total cost of investment in water supply and sewerage services is estimated to be Rs. 4890 million (\$140 million). Total cost for water supply components is estimated to be Rs. 4393 million (\$126 million) and sewerage components to be Rs. 497 million (\$14 million). The total costs reflect base costs, price escalation during construction, design and supervision charges, physical contingencies and interest during construction.

The water and sewerage project is positioned within an Urban Finance Framework. The project will receive significant transfers from gen-

FIRE(D)

eral sources of the corporation such as octroi and property taxes. Cost recovery for water supply and sewerage services will also be enhanced by revision in taxes, connection charges and other fees related to these services. In April of 1997, the AMC revised taxes and charges in the water supply and sewerage sectors by between 15 and 100% depending upon the user group. As a result of these revisions, revenue is expected to increase by Rs. 500 million (\$15 million) during the 1997/98 fiscal year and by 10% per annum in future years. Collection performance is also expected to improve by approximately 25%. Connection charges were also revised in 1997, and the minimum connection charge was raised to Rs. 300 for a half inch pipe. The AMC projects 51,000 and 35,495 new connections for water and sewerage services, respectively, by the year 2001.

**Ahmedabad Municipal Corporation:
A Progressive Record of Reform**

During 1992-93, the AMC's financial and liquidity position was under a severe strain. But during the next year, the AMC achieved a relatively low revenue surplus of Rs. 58 million (\$1.7 million). And by 1994-95, the AMC had reached a revenue surplus of Rs. 490 million (\$14 million). This success gave the city a momentum which allowed it to focus on investments in Ahmedabad's urban infrastructure and environment through innovative partnerships with other institutions who have a stake in the future of the city.

In the fall of 1994, the AMC launched a major effort to improve collection of octroi and property taxes. To combat corruption and intimidation at octroi check-posts, and to address inadequate information and monitoring, law enforcement officers and all Deputy Municipal Commissioners were deputed to supervise check posts both day and night. Municipal accounting systems were also computerized and improved.

Due to these measures, octroi collection increased by over 60%. Turning to property taxes, the AMC cracked down on evaders by conducting raids, issuing attachment warrants and disconnecting water and sewer from those in arrears. Through these measures, collection of property taxes increased by over 55%.

The municipality also took an important step toward the professionalization of its workforce. For the first time in India, the city recruited certified chartered accountants and recent graduates with Masters'

degrees in Business Administration. In one year, the AMC recruited forty such professionals and placed them in key administrative positions with responsibilities in project management and oversight. Improvements in the financial situation of the city allowed it to take up other important activities. Road conditions of the city are being improved substantially, and road and bridge widening projects are underway. Improvements along C.G. Road, one of the main commercial streets, were implemented through a public-private partnership and completed in 1997. The Kotarpur Water Project, left dormant for some time, was completed in 1996. And the innovative Slum Networking program has been initiated which will improve living conditions for the urban poor in a number of areas.

In 1996, Ahmedabad became the first urban local body in India to request and receive a rating for a municipal bonds issue. Credit Rating and Information Services of India, Ltd (CRISIL), the country's premier credit rating agency, assigned Ahmedabad an "A+" rating for a municipal bond issue of Rs. 1000 million (\$29 million).

The AMC appointed Infrastructure Leasing and Financial Service, Ltd. (IL&FS) as the investment banker for the municipal bond issue. The municipal bond has been developed as a structured obligation with the escrow of octroi revenue of the Corporation to be monitored by an independent trustee, and special covenant on additional debt mobilization. With this structure, the rating of the instrument was enhanced to "AA(SO)".

**Partnership with USAID
and the FIRE Project**

In 1994, USAID took the first step in what grew to become a multifaceted partnership with the city of Ahmedabad. The production of Urban Environmental Workbooks, an urban environmental mapping exercise, was carried out by the National Institute of Urban Affairs. The exercise consisted of the production of a series of city maps reflecting a variety of features such as water supply systems, roads, slum areas, sewerage services, etc. The real utility of the maps was to analyze them in combinations to demonstrate, for example, the coincidence between areas unserved by sewers, and those with a high incidence of gastroenteritis.

This exercise culminated in a workshop, sponsored by USAID, which was attended by municipal officials, community leaders, and others interested in the maps' applications. Ultimately, the mapping ex-

ercise demonstrated the importance of information and its role in formulating public policy.

Building on this theme, USAID next sponsored a Comparative Environmental Risk Assessment of the city of Ahmedabad, which was carried out by the Centre for Environmental Planning and Technology (CEPT). The risk assessment identified and ranked a variety of urban environmental health threats, such as air pollution or food contamination, in terms of their severity, impact, mitigation costs and other factors. The results of the assessment showed ambient air pollution to be the greatest threat, and vehicular emissions emerged as one of the greatest offenders.

Armed with this information, the AMC decided to take action against the risks identified, and USAID assisted the AMC to develop a follow-up agenda. The result was a long-ranging process of discussion and study by policy-makers, academics, community leaders and others stakeholders, which resulted in a proposed Action Plan to combat the three greatest risks identified by the assessment: ambient air pollution from vehicular sources and from point sources, and water contamination.

The Project Development Process

The AMC then invited FIRE(D) to provide targeted technical assistance and build its capacity in municipal accounting and financial management, project management and non-tax revenue generation which would improve the AMC's overall financial position. Once the city was ready with infrastructure investment requirements, FIRE(D), in association with IL&FS, continued to work with the AMC to prioritize investment proposals, conducted detailed financial analysis of the proposed investments and assist in the technical and financial aspects of water supply and sewerage project development. Based on the Project Pre-Feasibility Analysis developed by FIRE(D), a draft Project Report was produced which included technical and financial analysis and a project implementation plan.

In addition to working with the corporation, FIRE(D) provided assistance to the range of private consultants engaged by the city. The methodology for evaluating and rating municipalities – the first of its kind in India – was developed by Credit Rating and Information Services of India, Ltd. with the assistance of the FIRE(D) Project, and has since been applied to other Indian cities.

When IL&FS was enlisted by the city to develop the

projects' financing package, FIRE(D) assisted IL&FS and the AMC in developing the proposed bond documents and financial planning. FIRE(D) also worked with the city to review the report on the water supply projects produced by the city's consultants and provided key assistance in the integration of water and sewer systems in project analysis; the need to assess water supply investments in relation to other proposed investments; and the need to incorporate the city's own financial contribution into project analysis.

Financing Plan for Water Supply and Sewerage Projects

The proposed projects are expected to be financed through the internal accruals of the AMC, debt from the capital markets and a loan from IL&FS using funds made available by a loan guaranty through the Housing Guaranty Program of USAID and other financial institutions, such as the Housing and Urban Development Corporation and Life Insurance Corporation of India.

In India's first issue of municipal bonds, the AMC will float a Rs. 100 crore (\$30 million) bond issue in January of 1998, with both public and private placement. The bonds have been listed on the Ahmedabad Stock Exchange and will also be listed on the National Stock Exchange. As of this publication, a majority of the issue has already been booked by financial institutions.

Project Implementation Plan

A special structure has been designed for the management and implementation of the AMC's infrastructure investment plan. Project management consultants will be enlisted from the private sector to facilitate the process of project design and approval, tendering, construction supervision, quality control, audit and budgetary controls and payments. This structure is based on the approach developed by the City and Industrial Development Corporation (CIDCO) of Mumbai to successfully execute a number of large projects simultaneously. This CIDCO model has been adapted to meet special requirements of the AMC as a statutory body, and the AMC is expected to adopt this management approach and eventually reform its overall project administrative structure.

The structure will be lead by a Project Coordination

FIRE (D)

Cell, responsible for overall project coordination, monitoring and reporting. This cell will provide updated information on progress of work and assist AMC management to take corrective measures when necessary. A professional project management consultant will serve as Project Management advisor to the Project Coordinator, an AMC officer.

Three Project Management Units — two units for water supply, one for sewerage — will consist of 4-6 AMC engineers who will work exclusively on the water and sewerage project. These units will draw upon the services of professional design consultants throughout the design and tender process. Project Management Consultants will be appointed by the AMC for management of the construction phase.

To remedy the current time-consuming approval process, it is proposed that the Standing Committee and General Body of the AMC give in-principle approval to the project as a whole, and that tenders for the project be directly placed before the Standing Committee for approval without sequential review by other committees. When the estimated costs of the project are ready, the AMC will invite tenders in anticipation of approval by the Standing Committee. It is expected that this approach will help to reduce delays and cost overruns.

For further information on the Ahmedabad Water Supply and Sewerage Project, or the FIRE-D Project, please contact the Project Office listed to the right.

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) seeks to expand the debt market through the financing of commercially viable urban environmental infrastructure projects, by channeling USAID Housing Guaranty funds to selected demonstration cities and states to assist in the financing of urban environmental infrastructure projects.

The FIRE(D) Project Office
E - 3/4, Vasant Vihar
New Delhi 110 057, India
Tel: (91-11) 614-3551 or 614-9836
Fax: (91-11) 614-1420 or 614-4480

Regional Urban Development Office
USAID/New Delhi
B-28 Institutional Area
New Mehrauli Road, Near Qutab Hotel
New Delhi 110-016, India

Community Consulting International
1012 N Street NW
Washington DC 20001-4297 USA

in association with
Technical Support Services
1012 N Street NW
Washington DC 20001-4297 USA

Funded under USAID Contract
No. 386-0531-C-00-5027-00

The *Project Notes* series is edited and produced by Laurie de Freese.