

Alandur Sewerage Project

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Alandur Sewerage Project (ASP)

ASP is a unique case of PPP in the sanitation sector in urban India, which represents an effective institutional and financial approach towards implementation of sustainable sewerage system in the country. A combination of well-planned communication strategy along with political will and high level of community participation makes the project successful.

India Urban Context

- **Existing Situation:**
 1. Low access and level of services
 2. Low tariff and cost recovery
 3. Low customer satisfaction/supply side orientation
- **Possible Options for Financing Services:**
 1. Accessing capital markets-municipal bond/pooled financing
 2. Borrowing from commercial banks/ financial institutions
 3. Private sector participation/users participation

Alandur Profile

- Population: about 1.46 lakh in 2000 with 23000 households. Projected population by 2030, 3 lakh.
- Area: 19.5 Sq km.
- Residential suburb of CMDA with predominantly residential and commercial activities. About one fourth population lives in slums
- No sewerage system for disposal of sewage.
- Night soil disposal- either septic tanks or holding tanks used by the households, collected periodically by tankers and disposed in the low lying areas and storm water drains.
- Unregulated disposal was an environmental and health concern for the local residents and was frequently raised as a political issue.

Project Planning and Design

Prior to 1997, not more than 20% of the state's urban population was served with sewerage system. To enhance the coverage of sewerage, GOT in 1997 decided to provide sewerage system in all the 12 major urban centers including Alandur, with the following objectives:

- To improve the standard of living of residents of Alandur (on par with Chennai) and also the municipal sanitary workers.
- To provide the most essential and basic service to them.
- To eradicate mosquito menace.
- To avoid recurring expenditure on septic tank cleaning
- To avoid ground water contamination.

Above all, in the 1996 municipal elections, then Chairman of Alandur Municipality (AM), Sri Bharti has committed for sewerage in the election manifesto.

Project Planning and Design contd..

To be designed for the population of 3 lac in 2030, and was planned to be completed in 5 years period from the date of its inception. Project components are:

- Sewerage network consisting of main sewer line, branch sewer line and manholes;
- Construction of sewerage pumping station;
- A sewage treatment plant with the total capacity of 24 mlpd – 2 units of 12 mlpd each; and
- Low cost sanitation in low income settlements- community toilets. In the areas sewer line not accessible, to be connected with septic tanks.

Institutional and Management arrangements

- TamilNadu Urban Infrastructure Financial Services Ltd (TNUIFSL), the state asset management company was nominated as the agency to coordinate, supervise and structure the finances for the project, also responsible for detailed studies on the feasibility of the project.
- USAID- FIRE-D project
- Alandur Municipality (AM) and GTN
- Due to lack of capacity (financial and technical) with AM, TNUIFSL/ GOT decided that responsibility of project designing, etc. be given to private company.
- The engineering, procurement and construction (EPC) contractor was selected (M/s Consulting Engineering Services Limited) to carry out the investigations and engineering reports for the Alandur. The scope of work included project design ,locations of pumping stations and treatment plant, and cost estimates.
- Whereas designing and building the sewerage system was on Bill of Quantities (BOQ) basis STP under BOT basis on 14-year lease.
- O&M contract using World Bank guidelines, selected EPC contractor would operate and maintain the system for 5 years from the date of its completion on a fixed fee basis. Whereas AM responsible for the collection of tariff and new connections

Institutional and Management arrangements contd.....

- A lease contract (BOT agreement for STP) using world bank guidelines was awarded to IVRCL Infrastructure and Projects Ltd in technical collaboration with Va Tech Wabag technologies Ltd. In addition to carry out civil works and installation of equipment's, they were responsible for operation and maintenance of STP for 14 years.
- Incidentally, to facilitate PPP, GOT issued notification on privatization of municipal services in 1998 (GO NO.69 dated 4 May 1998)
- For overall supervision, an independent project management consultant was appointed to TNUIFSL.
- In addition, number of committees were setup to monitor project activities. First, local committee responsible to review the weekly progress. Second committee representing state govt representatives, municipal officers in charge of various activities to review the monthly progress with regard to status of necessary approvals from the line agencies.
- Another committee of representatives of welfare associations to operate bank account. Women groups were also involved in the scheme to manage the community toilets/ latrine facilities.

Cost of the Project

1 US Dollar = Approx. Rs.50

- Total project Cost -Rs.3375.37 lakh.
- STP cost-Rs. 849.80 lakh(25.18%)
- Sewer lines-Rs 1860.79 lakh (55.13%)
- House service connections-Rs 225lakh (6.67%)
- Physical (5%) and price contingency(10%)-450.37lakh (13.34%)

Project Financing

Sources of finance	Amount (Rs crores)	% to total
LOAN:		
TUFIDCO	16.20	46.82
TNUIFSL	4.20	12.13
GRANTS:		
TUFIDCO	1.00	2.89
GTN (bridge gap)	3.20	9.24
PUBLIC CONTRN:		
Deposit collection	8.00	23.12
Interest from deposits	2.00	5.78
TOTAL	34.60	100.00

Project financing contd....

- Gap funding by GOT-proposed tariff Rs 180 per month (domestic) in which GOT will provide grant of Rs 30 per house hold per month. In addition, GoT will also bridge the gap on account of O&M expenditure on the sewerage. Tariff for commercial connections was fixed Rs 450 per month whereas from industrial users Rs 750 p.m.
- Land from municipality- AM acquired about 0.5 ha land for terminal pumping station by using own sources (Cost Rs 20 lakh approx.).
- Special grant for supervision by TNUIDCO from the Tamil Nadu Urban Development Grant Fund.approx. Rs 100 lakh/ One crore
- In case of default in repayment, GOT will deduct the devolution from the state equal to repayment loan amount and will pay it to the financial institution (current amount is 150 lakh per annum). In addition, Am also opened an escrow account to ensure the timely repayment of loan.
- Public contribution (one time deposit/ connection): Domestic users- Rs 5000; commercial- Rs 10000; industrial- Rs 10000. AM targeted to provide about 22000 connections by 2004-5 to generate approx Rs 13 crore to be put into Revolving Fund.

Project Time line/Process

- TNUIFSL, designated as a agency to coordinate the investigation and detailed studies, and to structure the finances for the project
- In 1997, M/s Consulting Engineering Services Limited appointed as a consultancy organization to carry out the investigations and engineering reports for the Alandur. The scope of work included project design, locations of pumping stations and treatment plant, and cost estimates.
- In 1998, the preliminary report on the project was submitted to the committee. The members of the committee were: commissioner Alandur municipality; engineering director, TWSSB; suptd. engineer, CMWSSB; commissioner of municipal administration, GOT; and technical adviser, TNUIFSL.

Project Time line/Process contd....

- GOT accorded administrative sanction vide G.O. dated 9-12-1998.
- Date of technical sanction-27-1-1999
- Tender submission for technical proposal: 26-10-1999; for financial proposal:16-12-1999
- Award of contract-3-2-2000 to M/s IVRCL Infrastructure P Ltd based at Hyderabad.
- Agreement signed on- 2-3-2000
- Expected date of completion as per agreement-31-3-2005
- Expected date of completion as per AM: first phase-30-8-2001; and second phase-31-3-2003

Public Mobilization Process

- On the basis of financial analysis of the project, it was decided to collect the deposits from at least 10000 residents before calling for tenders to ensure public participation in the project
- Officials as also the non officials especially the Chairmen of Alandur municipality (Mr.R.S.Bharti) organized detailed discussions, corner meetings with the residents of the Alandur and their associations with a view to explained the project details and benefits from the implementation of the sewerage scheme.
- Media such as television, news papers and advertisements on local public transport system used to motivate the public. Sanitary workers carried out door to door canvassing in support of the project

Public Mobilization Process.....

Willingness to pay survey was conducted in 1997 in order to assess the affordability and willingness to pay of the residents of Alandur.

Although initially a sizeable population of Alandur was not ready to pay a high deposit on account of sewerage connection charges and monthly tariff (or water monthly charges are in the range of 21-50 for domestic consumers).

But later through active canvassing and educating the people on the benefits of the scheme they accepted to pay the sewer charges as per municipal tariff structure.

Current Status

- Whereas project was proposed to be completed in five years period from its commencement, in two phases, it was completed before time. As reported project was completed in October 2003.
- Till March 2006, nearly 22824 residents have remitted deposits and AM collected Rs 14.86 crores excluding interest amount of Rs 2.26 crores(earned interest by investing it in TamilNadu Power Finance Corp.)
- From 1.1.2006, AM has revised the connection fee charges/ deposits.

From 01.01.2006, the one time deposit has been revised as follows

Square feet	Rs
1- 500	- 6000/-
501 to 1500	- 7500/-
1501 to 3000	- 10000/-
> 3000	- 16000/-
Number of connection given	- 17,190

Source: AM

Under Ground Drainage-Tariff Domestic Category:

Square feet	Monthly Tariff (Rs)
< 500	- 60
500 – 1500	- 80
1500 – 3000	- 100
> 3000	- 120

Under Ground Drainage –Tariff Non Domestic – Commercial and Industries Category:

Square feet	Monthly Tariff (Rs)
< 500	- 200
500 – 1500	- 400
1500 – 3000	- 600
>5000	- 1000

Funds Received so for (In Rs)

Expenditure

As on 10.3.2009

TNUIFSL Grant (Govt)	:	3,00,00,000	<u>IVRCL Contractor payment</u>		26,39,00,000
			<u>Others</u>		
			Road restoration charges to highways	Rs.2,35,68,000/-	
TUFIDCO Loan received	:	15,15,25,000	E.B. deposit (Pump house), Railway	Rs.15,93,065	
TUFIDCO Grant	:	74,25,000	Railway	Rs.1,14,94,540	Rs.3,70,57,620/-
Govt of TN Grant	:	2,90,00,000	Expenditure for pumping station	Rs.4,02,015	
Public Money	:	14,85,79,500	TUFIDCO Loan repayment as on 31.12.2008	:	
Interest from Deposit	:	2,46,27,000	Principle	Rs.4,91,11,111	Rs.8,84,86,346/-
Connection charges	:	2,60,00,000/-	Interest	Rs.3,93,75,235	
UGS Monthly charges collection as on dt.		3,80,80,000/-			
			S.T.P. Charges paid upto 28.2.2009 CC for pump house	:	Rs.6,15,41,579/- Rs.33,88,153/-
Total		45,52,36,500		Total	Rs.45,43,73,698

Source: Alandur Municipality (AM)

Key observations & learning

- Political will and community support
- Value for money
- Commitment towards project prior to implementation
- Acceptance of fiscal discipline
- Stakeholders involvement and interdepartmental coordination
- Transparent process
- Involvement of beneficiaries at all stages

Key observations & learning

- Risk management and assurances on payment to the investors.
- Implementing progressive system of connection charges from the users
- Timely completion
- AM received the national urban water award 2008 from GOI for Alandur Sewerage Project under PPP mode.



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