ICR Review

Operations Evaluation Department

Report Number : ICRR11979

1. Project Data:		Date Posted : 12/17/2004		
PROJ ID : P010461			Appraisal	Actual
Project Name : Madras Water Supply II		Project Costs (US$M)	421.0	138.7
Country : India		Loan/Credit (US$M)	275.8	81.6
Sector(s): Board: WS - Water supply (99%), Irrigation and drainage (1%)		Cofinancing (US$M)		
L/C Number : L3907				
		Board Approval (FY)		95
Partners involved :		Closing Date	06/30/2002	03/31/2004

Prepared by :	Reviewed by :	Group Manager :	Group :
Peter Nigel Freeman	Roy Gilbert	Alain A. Barbu	OEDSG

2. Project Objectives and Components

a. Objectives

The original objectives were to provide urgently needed water to the city of Madras and the introduction of improvements to the distribution and conservation of water in the area . Six months after loan effectiveness, however, a new government of Tamil Nadu was elected and opted to drop the Veeranam scheme in favor of an alternative and cheaper solution, the Krishna scheme . Accordingly, on March 17, 1997, the Board of Directors of the Bank approved an amended legal agreement with the following revised objectives : To assist Madras in :
a) Improvements to the sources of supply, treatment, distribution and conservation of water;
b) Expansion and rehabilitation of the sewage collection, conveyance, treatment and disposal system .

b. Components

The revised components in the new agreement (excluding contingencies) are:
a) Construction of a checkdam; (estimated cost US$8.4 m; 6.7% of total estimated cost; actual cost US$ 5.4m; 3.9% of actual cost)
b) Strengthening and rehabilitation program to improve water transmission and distribution; (US$68.3 m; 54.7%; actual US$80.5m; 58.0%)
c) Program of water conservation; (US$14.7m; 11.8%; actual US$28.7m; 20.7%)
d) Improvements to sewage collection systems; (US$11.3m; 9.0%; actual US$9.1m; 6.6%)
e) Studies related to water supply, sewerage and environmental sanitation; (US$3.8m;3.0%; actual US$3.3m; 2.4%)
f) Consultants' services, training and computer equipment (US$3.9m; 3.9%; actual US$2.8m; 2.8%)

c. Comments on Project Cost, Financing and Dates

US$189.3 million of the loan was canceled at the time of the 1997 amendment. The revised project took 21 months longer to complete than expected . Delays were caused mainly by disruption of supply during a period of failed monsoon rains . After the project closed on March 31, 2004 a further US$4.9m was canceled - the surplus is mostly due to exchange rate differences between the US dollar and the rupee .

3. Achievement of Relevant Objectives:

Improvements to the sources of supply, treatment, distribution and conservation of water . Partially achieved . Despite unsatisfactory quality at entry, the physical works to increase storage, improve water treatment and distribution, and the system to improve conservation were successfully completed . However, the technical solution has shown the vulnerability of the scheme to the uncertain monsoon rains . The lack of a long term sector strategy to ensure sustainable supply in times of drought is apparent . In addition, while the "hired well" program whereby raw water is bought from agricultural wells, has augmented supply, the long -term sustainability of the aquifer is threatened due to the potential for increased consumption .

Expansion and rehabilitation of the sewage collection, conveyance, treatment and disposal system . Achieved. The sewer network was extended and the program of pumping stations was completed successfully . There has been a significant improvement to sewage collection and disposal .

4. Significant Outcomes/Impacts:

- Through a system of "hired" wells, Metrowater has augmented supply and reallocated water resources away from irrigation to urban use, with higher benefits;

- Water distribution and conservation will show improvement once normal rainfall patterns resume . A number of private sector firms are now involved in operational and maintenance activities;
- There was a significant improvement in sewage collection, treatment and disposal .

5. Significant Shortcomings (including non-compliance with safeguard policies):

- The technical solution for water supply relied on continued dependence on uncertain monsoon rains
- The project does not appear to be linked to a sector strategy, but was more of an ad hoc crisis initiative
- There was little attempt to improve the institutional capacity of Metrowater or and still no plan to improve its financial sustainability

6. Ratings:	ICR	OED Review	Reason for Disagreement /Comments
Outcome:	Satisfactory	Moderately Satisfactory	[the ICR's 4-point scale does not allow for a "moderately sat." rating]. The technical solution is at risk from uncertain rainfall and represents only a small improvement when precipitation is scarce (see above).
Institutional Dev .:	Substantial	Modest	Although progress was made with the creation of appropriate systems, twinning arrangements and the contracting of private firms, the staff freeze at Metrowater has prevented the organization from attracting the caliber of staff it needs. At project completion, there was also no plan to improve financial sustainability of Metrowater and the ICR notes that the project should have spent more on institutional development to train staff.
Sustainability :	Likely	Likely	
Bank Performance :	Satisfactory	Satisfactory	
Borrower Perf .:	Satisfactory	Satisfactory	
Quality of ICR :		Satisfactory	

NOTE: ICR rating values flagged with ' * ' don't comply with OP/BP 13.55, but are listed for completeness.

7. Lessons of Broad Applicability:

- Under conditions of acute water scarcity, high socioeconomic returns can be expected from leak detection and reduction programs;
- Future water projects must be preceded by a thorough risk analysis when there is reasonable doubt about the sufficiency of available water sources; the effective capacity of each project component is also critical;
- When there is an increase in the number of outsourced services, it is important that this be matched by an appropriate number of trained officials to monitor and control their activities;
- There should be an effective balance between domestic and commercial /industrial water consumers when tariffs are drawn up.

8. Assessment Recommended? ● Yes ○ No

Why? Since the project was not fully effective because of the unforeseen prolonged drought and because further developments to augment the water supply have taken place since the ICR, it is proposed that a fuller assessment be made in due course, possibly as part of a cluster of projects in the region .

9. Comments on Quality of ICR:

The ICR is well written and presented. The text does, however, send mixed messages regarding the relative success of the project in terms of outcome and institutional development, and the corresponding ratings are not fully in line with the text.