

Report Number: ICRR13543

1. Project Data:		Date Posted:		
PROJ ID:	P091695		Appraisal	Actual
Project Name	Modernization Of The Water And Sanitation Sector Technical Assistance Project	Project Costs (US\$M)	55.2	NA
Country	Mexico	Loan/Credit (US\$M)	25	24.8
, ,	Board: WAT - Sewerage (38%), Water supply (38%), Sub-national government administration (12%), Central government administration (12%)	Cofinancing (US\$M)		
L/C Number:	L7325			
		Board Approval (FY)		05
Partners involved :		Closing Date	06/30/2009	03/31/2010
Evaluator:	Panel Reviewer :	Group Manager:	Group:	
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# 2. Project Objectives and Components a. Objectives

The main objectives as stated in the Loan Agreement (LA) and the Project Appraisal Document (PAD) were identical; (i) to improve the efficiency of Mexico's water supply and sanitation sector through strengthening the sector policies at the federal and state level; and (ii) to develop and demonstrate replicable models of successful and sustainable provision of water and sanitation services. The PAD added that the objectives would be achieved by supporting selected service providers and the municipalities of which they are a part in improving operational and financial performance. The results framework in the Implementation Completion Report (ICR) describes the objective differently, referring to the goal to assist the Government of Mexico in developing the tools and instruments to induce local authorities to improve financial sustainability and efficiency of water supply and sanitation provision in their jurisdiction. This is because at the time of project restructuring in June 2009, the restructuring note that accompanied the amendment to the Loan Agreement specified this objective which was different from the original objectives, but since the objective and the associated outcome targets were not formally revised, this ICR review will use the objectives as stated in the PAD and the Loan Agreement.

Achievement of Project development objectives would be confirmed through the following key indicators; (i) improved water and sanitation sector information system to include funds received from Comision Nacional del Agua, the National Water Commission (CNA, in the ICR, defined as CONAGUA) and with the possibility of registering funds from other sources and their impact; (ii) consensus reached with a majority of the State Water Commissions on their new roles and the establishment of an accreditation program for key water utilities personnel; and (iii) improved performance of pilot water utilities measured as net revenues per volume of water produced. In the results framework this third indicator was described as improved performance of pilot water utilities measured as net revenues over operational costs.

The ICR notes that the PAD presented two matrixes with different indicators that were not clearly aligned and were overlapping, and that Implementation Status Reports (ISRs) reported on a different set of indicators. The ICR presents the results indicators that reflect only the PAD in a comprehensive manner including both matrixes.

## b. Components (or Key Conditions in the case of Adjustment Loans ):

The project had two components. According to the PAD, Component 1. Modernization of the WSS Sector Institutions (US\$2.9 million) aimed at providing assistance to the Federal and State Governments for developing a series of studies and activities associated to the strengthening of the sector policy making and planning institutions through:

 Support to the implementation of recent changes to the Water Law, by providing an assessment of the current water supply and sanitation programs, an essential input for the design of the overarching financing framework for the sector (i.e. Sistema Financiero del Agua);

- Strengthening of the existing national water and sanitation information system;
- Support of the State Water Commissions (CEAs) in the strengthening of planning, technical assistance and
  overseeing capacities through a series of activities to be implemented under an agreement between CNA and
  Asociacion nacional de Empresas de Agua y Saneamiento (ANEAS);
- · Development of an accreditation program; and
- Dissemination of the lessons learned in the project.

Component 2. Modernization of Water Utilities (US\$47.7 million) aimed at supporting the development of replicable models for an efficient and sustainable provision of water supply and sanitation services ("success cases") through institutional reforms and improvement of utility performance (technical, commercial, and financial). This component would fund efficiency improvement programs in selected utilities to strengthen and bring utilities to reasonable levels of management, operational efficiency and financial viability. In some cases, and given the necessary social, political, and financial conditions, this program would pave the way for some form of private sector participation in service delivery and financing.

The description of the first component was made more concise but specific in the LA, compared to the description in the PAD. LA's description of the second component, Pilot Cases, was similar to the description in the PAD. The component description in the ICR was consistent with the description in PAD and LA.

Component 1 was modified at project restructuring on June 17, 2009 and the activity related to the provision of support to the state water commissions was replaced with the activities to develop new regulations for the water and sanitation sector. Specific activities included the design of new rules that would become an instrument for normalizing methodologies, developing indicators, and measuring and comparing results.

#### c. Comments on Project Cost, Financing, Borrower Contribution, and Dates

The project was approved by the Board in August 2005 and on December 21, 2005, the Government of Mexico requested an extension of the effectiveness date to March 2006. In mid 2009 the Bank and the Government of Mexico agreed to restructure Component 1 to modify the section dealing with the CEAs and included regulatory and normative activities to better achieve the project's PDA. At this time, the closing date of the project was extended by nine months to close in March 2010.

The original cost of Component 1 was \$2.86 million. According to the ICR, part of the component was fully funded by the Borrower, and thus information on the actual cost is not available. The total cost of Component 2 was estimated at \$47.73 million at appraisal, and the actual cost of the component was \$51.93 million. The actual IBRD loan was \$24.81 million and it was very close to appraisal estimate of \$25 million.

## 3. Relevance of Objectives & Design:

The relevance of project objectives is rated Substantial . The project objectives remained relevant to both the country conditions and the Bank's strategy at the time the ICR was prepared. The main development objective of improving the efficiency of Mexico's water supply and sanitation sector through strengthening the sector policies at the federal and state level would contribute to addressing the long run development challenges facing the country, including the social inclusion and poverty reduction, developing infrastructure (and assuring energy security), and strengthening institutions.

According to the Bank's recent Country Partnership Strategy (CPS) for Mexico, there is a notable change in the dynamic of the Bank's relationship with Mexico which calls for the need for increasingly flexible, on -demand services especially advisory services and technical assistance. The project objective which focused on the institutional and sector policy aspects of the water sector in Mexico, is therefore relevant to the country's circumstances. The Country Assistance Strategy at the time of appraisal identified decentralized development as a priority, pointing to the importance of capacity building and institutional strengthening to improve the effectiveness of the decentralization process and the efficiency of sub-national expenditures. The project aimed at strengthening the sector's federal and state policies and improve the performance of the local service providers was highly relevant and remained relevant at the time the ICR was prepared, as the CPS focuses on strengthening institutions, including the subnational povernments.

The relevance of project design is rated Modest . The objectives appeared to be too ambitious compared to the relatively low level of Bank intervention. The project was not designed to have an impact on sector -wide objectives. It was not likely that a significant impact on the efficiency of Mexico's water and sanitation sector as a whole could be made with limited technical assistance for developing studies and activities, such as the strengthening of the country's information system, and pilot efficiency activities in selected municipalities. The causal chain between Bank- funded activities and the envisaged development objectives were therefore not clear.

The key outcome indicators were defined as; (i) improved information system for the sector to strengthen the quality and quantity of selected performance indicators; (ii) consensus reached with a majority of the State Water Commissions on their new roles and policies and the establishment of an accreditation program for key water utilities personnel; and (iii) improved performance of pilot water utilities measured as net operational revenues over operational costs. While the improvement in the performance of pilot water utilities may partially reflect the development and demonstration of replicable models of successful and sustainable provision of water and sanitation services, these indicators do not reflect the improvement in the efficiency of the country's water and sanitation sector through strengthening of sector policies at the federal and state level .. For such a high level objective, a higher level outcome indicator should have been chosen. Alternatively the objective should have been more appropriately stated to reflect the limited scope of the project support.

The activities in the first project component were restructured but the output and outcome indicators in the results framework were not modified according to the change in project scope. Therefore there is a discrepancy between the new project scope and the original results framework.

# 4. Achievement of Objectives (Efficacy):

Achievement of the first objective, to improve the efficiency of Mexico's water supply and sanitation sector through strengthening the sector policies at the federal and state level is rated Modest

As indicated in the relevance of design section, there are no outcome indicators that appropriately reflect this high level objective of improving the efficiency of Mexico's water supply and sanitation sector.

The first outcome indicator was to improve the information system for the water and sanitation sector, and this was achieved through development of 12 standardized performance indicators and collection of data from 80 WSS utilities throughout the country, which exceeded the original targets. Some degree of efficiency improvements for pilot utilities has been demonstrated through the key indicators related to efficiency, such as physical efficiency, commercial efficiency, global efficiency, and non-revenue water for the ten water utilities that have participated in PATME for more than one year These indicators have shown improvements from 53.4% to 55.3% (physical), 69.8% to 76.6% (commercial), and 37.3% to 42.4% (global) over the years 2006-2009. In addition, standardized norms, workshops/courses, and manuals on efficiency improvements for WSS utilities as well as other technical materials have been developed and disseminated.

In terms of the strengthening of the sector policies at the federal and state level, some progress were made initially to reach consensus with some state water commissions on their new roles and policies, but this activity was dropped at project restructuring. Instead, the sub-component was replaced with activities to develop new regulations for the water and sanitation sector. These new activities were implemented and in 2008 CONAGUA published four new norms on user expectations, improving sanitation services, and improving drinking water services.

According to the project team, the sector's investment into efficiency improvements went up from 1,600 million pesos in 2005 (11% of total investments through federal programs) to 4,900 million pesos in 2010 (22% of total investments), and under the ongoing World Bank supported project, "Water Utilities Efficiency Improvement Project", CONAGUA is preparing a formal Public Policy for Efficiency Improvements of Water Utilities, and is scaling up the results of "Modernization Of The Water And Sanitation Sector Technical Assistance Project". This information indicates that the project has made an impact on the country's focus on efficiency improvements in the sector.

However, no evidence was provided for demonstrating that the sector's efficiency has improved as a result of the sector policies at the federal or state levels supported under the project, other than improvements of efficiency indicators for water supply only for the ten pilot utilities. Based on this limited data it is hard to conclude that the efficiency of the country's water and sanitation sector has improved through strengthening of policies implemented under the project. Therefore the achievement of this objective is rated modest.

Achievement of the second objective, to develop and demonstrate replicable models of successful and sustainable provision of water and sanitation services is rated Substantial

The project provided efficiency improvement programs in selected utilities to strengthen and bring utilities to reasonable levels of management, operational efficiency, and financial viability. The improvements in the performance of the pilot water utilities were to be measured as net operational revenues over operational costs. The 4.4% improvement from 0.9 during the first year of project implementation to 0.94 at project closure was close to the target of 5%. Of the three intermediate outcome indicators, two exceeded the targets and one showed satisfactory improvement. The recovery tariff indicator (revenues collected over volume of water produced) increased by 31% and exceeded the target of 10% improvement, from \$3.18/m3 to \$4.15/m3. The unaccounted for water reduction indicator of 4% was also achieved through reduction from 46.6% to 44.7%. The working ratio (operational revenues/operational costs) improved at 4.4% but did not achieve the target of 7% increase set at appraisal.

The indicators are related to the performance of the pilot utilities, but the sustainability of the service provision or the replicability of these models are not assessed or discussed in depth in the ICR. One indicator that points to the replicability effect is the request by CONAGUA to scale up the program through a follow on project, Water Utilities Efficiency Improvement Program.

## 5. Efficiency:

#### Efficiency has been rated substantial .

Three representative water utilities (Naucalpan, Comex Palacio, and Durango) were selected for an ex-post financial analysis to be compared with the analysis done at project appraisal. The criteria used for selecting these three utilities were financial status, size, institutional capacity, and the type of activity undertaken. The financial conditions of the utilities were assessed and a cash flow analysis with and without the project was performed for each utility. The results of the analysis shows that the financial rate of return (FRR), although lower than the appraisal estimate, was in the range of 19-36% for the three utility groups. The average FRR was 26% as opposed to the appraisal estimate of 52%.

No meaningful economic analysis could be completed at the time of the ICR due to lack of adequate data to quantify economic benefits generated by project activities. However, a qualitative cost and benefit analysis was done by the ICR team and the conclusions showed that; (i) given the water scarcity affecting many parts of Mexico, the opportunity cost of water is relatively high; and (ii) the fact that all three utilities have improved their financial status has resulted in the decreasing need for long-term subsidies from the central and local governments. These factors would contribute to positive economic benefits.

The borrower fully funded the first component on modernization of the sector at the federal and state level, while the Bank funds were used for the second component on the pilot cases of water utilities. The project was extended by nine months because of the change in the scope of component one and introduced a new activity to develop new regulations. The project funds were spent in full with these nine months extension, on the planned activities. There were no major fiduciary issues identified in the ICR. On balance, the efficiency is rated as substantial.

## 6. M&E Design, Implementation, & Utilization:

Modest

# 7. Other (Safeguards, Fiduciary, Unintended Impacts--Positive & Negative):

The project did not support any physical investments and therefore no adverse effects were found. From the social safeguards perspective, a positive impact is expected since the project will provide the basis for developing sustainable utilities that will be in a position to provide better quality services to existing and new customers. The project also promotes inclusion of civil society in the decision making processes in at least one of the participating utilities, as a means to generate a sense of ownership among the users of the services, thus facilitating implementation of reforms, and as an instrument to foster a more transparent relationship between the utility and the public.

There were no major issues related to the financial management of the project other than minor weaknesses identified in the financial management reporting. On the procurement side there was a formal complaint presented by the incoming administration from one of the participating water utilities, along with several other complaints received from unsuccessful bidders. No evidence was found for any fraud or corruption after a thorough investigation, and the Bank made a series of recommendations for improving records management and technical supervision.

8. Ratings:	ICR	IEG Review	Reason for Disagreement /Comments
Outcome:	Satisfactory		Since the revised objective and the related performance indicators were not formally revised at project restructuring, evaluation is based on the original objectives and indicators which were not fully achieved.
Institutional Dev .:			
Sustainability:			

Bank Performance : Satisfactory		Project restructuring of the first component was appropriate, but the related objectives and the results framework were not formally revised. This led to only partial achievement of the original objectives at project closure.
Borrower Perf .: Satisfactory		Political difficulties and weak technical capacity of CONAGUA led to delays in project implementation and weak monitoring of results.
Quality of ICR :	Satisfactory	

#### NOTES:

- When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.
- ICR rating values flagged with ' \* ' don't comply with OP/BP 13.55, but are listed for completeness.

#### 9. Lessons:

Supporting sub -national actors (such as states and municipalities) through sector agency programs: The project reached out to the municipal and state level authorities by supporting investments in water utilities via financing from federal level run programs. The programs supported multi year investment programs which ensured that there are multi-year commitments for funding of the infrastructure. This model worked well for ensuring funding for the medium to longer term investments and ownership and commitment from the local authorities.

Setting realistic targets and achievable objectives : The project included activities that were institutionally and politically sensitive (dialogue with state water commissions and certification of staff to mitigate turnover risk due to the political cycle), and these were eventually dropped at project restructuring. The risk analysis at appraisal did not reflect these political risks sufficiently and the project did not have enough leverage to tackle them. The lesson from this experience is to set project targets that are achievable and to include appropriate incentives for the execution of the project activities.

Focusing on monitoring and evaluation: The project experienced difficulties in monitoring of the progress due to the poor availability of baseline data. Learning from this lesson, the ICR proposes to put a condition to develop a system for diagnosing candidate utilities prior to program approvals in the future. This would include collection of baseline information which will be used for monitoring the performance of the utilities and to help CONAGUA set policies for directing its finances and investments as well as measuring their effectiveness.

Carrying out activities for efficiency improvements: Of the many activities that were carried out by the municipalities, the activities that focused on improving commercial efficiency have demonstrated they can generate positive financial returns, contributing to the sector's financial sustainability. The project also found that investments in a series of activities rather than a single intervention are more effective for generating positive financial returns.

Building the capacity for project management: The project identified the importance of building sufficient capacity to manage the investment activities and to monitor the project activities. Standard documentation for project bidding has also facilitated systematizing the project and helped the utilities to improve their management capabilities. In scaling up the pilots, it would be important to strengthen the capacity of CONAGUA to set transparent criteria that are followed for approving and release of funds from the federal government and to monitor the progress of the activities properly.

## 10. Assessment Recommended? ■ Yes No.

Why? A project performance assessment report is recommended to evaluate the effects of this project on the performance of the sector as the follow on project approved in 2010 is being implemented, and the project ratings to be reassessed accordingly. This will also help inform the phase II of the IEG evaluation on infrastructure sustainability for water and energy sectors.

# 11. Comments on Quality of ICR:

Quality of the ICR is barely satisfactory. While it provides good analysis and candid assessment, it states the unofficial project objective, and focuses too much on outcome indicators as they were stated in the results framework, and lacks evidence for assessing the achievement of project objectives. The fonts and language used are sometimes inconsistent and hard to comprehend. Final editing by a professional would have made the presentation of the ICR clearer..