

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

## **MEXICO**

# **PILOT PROGRAM FOR INSTITUTIONAL DEVELOPMENT IN THE WATER SUPPLY AND SANITATION SECTOR**

**(ME-0253)**

## **INNOVATION LOAN PROPOSAL**

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## **APPENDIXES**

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## **BASIC SOCIOECONOMIC DATA**

For basic socioeconomic data, including public debt information, please refer to the following address:

<http://www.iadb.org/RES/index.cfm?fuseaction=externallinks.countrydata>

## **INFORMATION AVAILABLE IN THE RE2 TECHNICAL FILES**

### **Preparation:**

1. Consulting Firm's reports on: (i) the preliminary evaluation of the legal and institutional framework; (ii) an operating and financial situation of the selected service providers; and (iii) the political feasibility of the possible reforms.
2. Situación del Subsector Agua Potable, Alcantarillado y Saneamiento [Situation in the Water Supply, Sewer and Sanitation Subsector]. CNA. December 2001.
3. La Participación Privada en la Prestación de los Servicios de Agua y Saneamiento. [Private-Sector Participation in Water Supply and Sanitation Services]. CNA. April 2001.
4. Documents describing BANOBRAS' PRONIDEM, FORTAFIN and PROMAGUA programs.
5. Document describing the CNA's program to return water-use fees (PRODDER).

### **Execution:**

1. The Operating Regulations of the Program
2. Terms of reference for contracting technical advisors to operators
3. Terms of reference for contracting the permanent advisor for the program

## ABBREVIATIONS

ANEAS	Asociación Nacional de Empresas de Agua y Saneamiento de México [National Association of Water Supply and Sanitation Companies of Mexico]
BANOBRAS	Banco Nacional de Obras y Servicios Públicos, S.N.C.
BP	Business plan
CEAS	Comisiones Estatales de Agua y Saneamiento [State Water Supply and Sanitation Commissions]
CEMCAS	Centro Mexicano de Capacitación en Agua y Saneamiento [Mexican Water Supply and Sanitation Training Center]
CMAS	Comisiones Municipales de Agua y Saneamiento [Municipal Water Supply and Sanitation Boards]
CMASC	Comisión Municipal de Agua y Saneamiento de Coatepec [Coatepec Municipal Water and Sanitation Commission]
CNA	Comisión Nacional del Agua [National Water Commission]
COAPATAP	Comisión de Agua Potable y Alcantarillado de Tapachula [Tapachula Water Supply and Sewer Commission]
FOAEM	Fondo de Apoyo a Estados y Municipios [State and Municipal Support Fund]
IMTA	Instituto Mexicano de Tecnología del Agua [Water Technology Institute of Mexico]
JIAPAZ	Junta Inter-Municipal de Agua Potable y Alcantarillado de Zacatecas [Zacatecas Intermunicipal Water Supply and Sewer Board]
JUMAPAE	Junta Municipal de Agua Potable y Alcantarillado de Escuinapa [Escuinapa Municipal Water Supply and Sewer Board]
KfW	Kreditanstalt für Wiederaufbau
SEMARNAT	Secretariat of the Environment and Natural Resources
SIAPASF	Sistema de Agua Potable y Alcantarillado Sanitario de Fresnillo [Fresnillo Water Supply and Sewer System]
SOAPAMA	Sistema Operador de Agua Potable y Alcantarillado del Municipio de Atlixco [Atlixco Water Supply and Sewer Operating System]
SOAPAT	Sistema Operador de Agua Potable y Alcantarillado de Tepeaca [Tepeaca Water Supply and Sewer Operating System]



# MEXICO

## IDB LOANS

APPROVED AS OF JANUARY 31, 2004

	US\$Thousand	Percent
<b>TOTAL APPROVED</b>	<b>17,186,046</b>	
DISBURSED	14,950,825	86.99 %
UNDISBURSED BALANCE	2,235,221	13.00 %
CANCELATIONS	1,241,414	7.22 %
PRINCIPAL COLLECTED	7,502,950	43.65 %
<b>APPROVED BY FUND</b>		
ORDINARY CAPITAL	16,570,483	96.41 %
FUND FOR SPECIAL OPERATIONS	558,986	3.25 %
OTHER FUNDS	56,578	0.32 %
<b>OUTSTANDING DEBT BALANCE</b>	<b>7,447,875</b>	
ORDINARY CAPITAL	7,403,479	99.40 %
FUND FOR SPECIAL OPERATIONS	26,577	0.35 %
OTHER FUNDS	17,818	0.23 %
<b>APPROVED BY SECTOR</b>		
AGRICULTURE AND FISHERY	4,453,303	25.91 %
INDUSTRY, TOURISM, SCIENCE AND TECHNOLOGY	2,208,316	12.84 %
ENERGY	765,447	4.45 %
TRANSPORTATION AND COMMUNICATIONS	868,235	5.05 %
EDUCATION	650,096	3.78 %
HEALTH AND SANITATION	1,584,921	9.22 %
ENVIRONMENT	81,176	0.47 %
URBAN DEVELOPMENT	964,043	5.60 %
SOCIAL INVESTMENT AND MICROENTERPRISE	2,252,196	13.10 %
REFORM AND PUBLIC SECTOR MODERNIZATION	2,670,387	15.53 %
EXPORT FINANCING	375,210	2.18 %
PREINVESTMENT AND OTHER	312,715	1.81 %

\* Net of cancellations with monetary adjustments and export financing loan collections.



# MEXICO

## STATUS OF LOANS IN EXECUTION

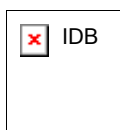
AS OF JANUARY 31, 2004

(Amount in US\$ thousands)

APPROVAL PERIOD	NUMBER OF PROYECTS	AMOUNT APPROVED*	AMOUNT DISBURSED	% DISBURSED
<b><u>REGULAR PROGRAM</u></b>				
Before 1998	2	388,400	25,159	6.48 %
1998 - 1999	2	710,000	517,106	72.83 %
2000 - 2001	6	2,105,000	1,170,454	55.60 %
2002 - 2003	3	1,510,000	780,599	51.70 %
<b><u>PRIVATE SECTOR</u></b>				
1998 - 1999	1	75,000	62,827	83.77 %
<b>TOTAL</b>	<b>14</b>	<b>\$4,788,400</b>	<b>\$2,556,145</b>	<b>53.38 %</b>

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\* Net of cancellations. Excludes export financing loans.



**Inter-American Development Bank**  
Regional Operations Support Office  
Operational Information Unit

## Mexico

### Tentative Lending Program

**2004**

<b>Project Number</b>	<b>Project Name</b>	<b>IDB US\$ Millions</b>	<b>Status</b>
ME0253	Demonstrative management models potable water and sanitation	10.0	
ME0250	Competency-based HH RR Development	70.0	
ME0255	Multiphase Social Programs Evaluation and Monitoring System - Phase I	15.0	
*ME1003	Hipotecaria Nacional- Mortgages Asset Backed Security	50.0	
ME0245	Health and Pension for Government Workers	275.0	
ME0212	Potable Water and Sanitation in Rural Areas II	300.0	
<b>Total - A : 6 Projects</b>		<b>720.0</b>	
ME1002	Technology to support Education	100.0	
ME1004	Training and Employment Support Program Phase II	300.0	
ME0259	Public Financial System Consolidation	300.0	
ME0257	Irrigation District Technification	80.0	
*ME1001	Carretera Oriente del Estado de Mexico	75.0	
<b>Total - B : 5 Projects</b>		<b>855.0</b>	
<b>TOTAL 2004 : 11 Projects</b>		<b>1,575.0</b>	

**2005**

<b>Project Number</b>	<b>Project Name</b>	<b>IDB US\$ Millions</b>	<b>Status</b>
ME0240	Small Exporters Finance Program	300.0	
ME0234	Education Program	100.0	
ME0235	Fianancial Protection in Health	200.0	
ME0236	Social Indicators System	10.0	
ME0237	Commercial Law Modernization	50.0	
ME0256	Strengthening States and Municipalities II	300.0	
ME1005	Direct Support to States	100.0	
ME1006	Small and Medium Enterprises Credit Program	300.0	
<b>Total - A : 8 Projects</b>		<b>1,360.0</b>	
ME0251	Modernization and Reform Water Sector	200.0	
<b>Total - B : 1 Projects</b>		<b>200.0</b>	
<b>TOTAL - 2005 : 9 Projects</b>		<b>1,560.0</b>	

**Total Private Sector 2004 - 2005 125.0**

**Total Regular Program 2004 - 2005 3,010.0**

**\* Private Sector Project**

## PILOT PROGRAM FOR INSTITUTIONAL DEVELOPMENT IN THE WATER SUPPLY AND SANITATION SECTOR

(ME-0253)

### EXECUTIVE SUMMARY

<b>Borrower:</b>	Banco Nacional de Obras y Servicios Públicos, S.N.C. (BANOBRAS)	
<b>Guarantor:</b>	The United Mexican States	
<b>Executing agency:</b>	BANOBRAS, with the participation of the Comisión Nacional del Agua (CNA) [National Water Commission] and other selected service providers.	
<b>Amount and source:</b>	IDB: (OC)	US\$ 10,000,000
	Local:	<u>US\$ 8,000,000</u>
	Total:	US\$18,000,000
<b>Financial terms and conditions:</b>	Amortization period:	25 years
	Grace period:	36 months
	Commitment period:	30 months
	Disbursement period:	36 months
	Interest rate:	variable/LIBOR
	Credit fee:	0.25% per annum on the undisbursed balance
	Currency:	United States dollars from the Single Currency Facility
<b>Objectives:</b>	The program's objective is to assist with the modernization and reform of Mexico's water supply and sanitation sector through pilot projects to promote autonomy, efficiency, equitable access, citizen participation and financial sustainability at the providers of these services in small and mid-sized cities. The program seeks to: (i) demonstrate the real potential for improving service in the near term and with limited resources; (ii) build consensus and support for the needed measures within the community concerned; (iii) gain experience and share the lessons learned that will be useful in similar communities; and (iv) lay the groundwork for a larger-scale investment and institutional development program.	

**Description:** The program will be carried out at five selected operators that are decentralized municipal service providers representative of the conditions under which service is delivered in Mexico. The program consists of four main components:

**Component 1. Preparation of the service providers' business plans (BPs) (US\$1.72 million).** A comprehensive appraisal will identify the problems and measures that must receive priority attention in order to make the operators' business sustainable. The service's legal framework will be examined, as will the political and institutional environment, the organizational structure, vehicles for citizen participation, operating issues, informal supply, and the service providers' financial condition. Performance indicators will be used to assess the current situation and the anticipated improvement. The resulting appraisal and the improvements and modernization measures proposed will form the participating operators' *business plans (BPs)*.

**Component 2. Implementation of the improvements and modernization measures (US\$5 million).** The measures suggested by the recommendations in the business plans will be implemented and will be of the following types: (i) **Institutional and regulatory**, such as implementation of new regulations and norms; (ii) **Organizational and participatory**, such as changes to the operator's organizational structure, training plans for executive, administrative and operational personnel, and promotional and participatory programs targeting community and users alike; (iii) **Operational**, such as updates of the systems' property records, installations and equipment, procurement and installation of macro and micro meters, leak detection and control programs, and plans that divide networks into sectors; (iv) **Business and financial**, such as updates of the user records, modernization of accounting and data systems, improved procedures for meter reading, billing and collection, changes to the tariff structure and levels, and procurement of computer hardware for the system operators.

**Component 3. Investments in priority civil works (US\$7.7 million).** The investments identified and recommended in a BP will be financed once the respective service provider has achieved the performance indicators agreed upon as an integral part of the strategy to make service sustainable. The works that would in principle qualify for funding are: (i) improvements to the existing facilities, mainly to reduce losses and guarantee a safe water supply; (ii) rehabilitation of equipment and installations whose obsolescence or disrepair either impairs or threatens to impair service; (iii) minor expansions to systems that distribute water to disadvantaged sectors;

and (iv) temporary, low-cost systems to provide service to communities not connected to the system.

**Component 4. Evaluation and dissemination of results (US\$700.000 million).** Program proceeds will be used to gather, process, analyze and evaluate the results that the service providers achieve once they have introduced the recommended improvements and modernization measures. They will also be used to fund the initial induction of participating operators into the program and the activities to disseminate best practices, such as: (i) establishment of mechanisms enabling peer dialogue so that the various service providers can share their experiences and information; and (ii) dissemination of best practices and lessons learned by publishing articles in sector-related journals, organizing seminars, participating in forums and staging workshops.

**Rationale for the program as an innovation loan:**

The program comports with the objectives mapped out for innovation loans (PR-808) inasmuch as it seeks to: (i) introduce a novel approach involving a comprehensive appraisal of the service providers, credit awarded on the basis of anticipated improvement, and technical accompaniment services during program implementation; (ii) promote mechanisms enabling real citizen participation in order to encourage better management, create a sense of ownership, and ensure acceptance of improvement measures; (iii) solve problems of low-income populations, especially those not connected to the public supply system; (iv) gain experience and share the lessons learned; and (v) lay the groundwork to ensure the success of a larger-scale program in the future.

**The Bank's country and sector strategy:**

The Bank's strategy for Mexico rests on four main pillars: (i) modernization of the social sector and reduction of extreme poverty; (ii) regional integration; (iii) modernization of the State, decentralization and subnational development; and (iv) improvement of competition by lowering barriers to productivity and through efficient private sector development. The proposed operation advances modernization of a service with a high social impact and is consistent with the decentralization processes in progress as it strengthens service providers at the municipal level.

The loan fits in with the Bank's efforts in the sector, which target rural areas and the larger cities. Investments on the order of US\$1.7 billion per annum for the next 25 years are needed to gradually increase the coverage of water and sewer services and meet the **millennium development goals**. The proposed operation will help achieve those goals by developing, on a small scale, mechanisms for institutional strengthening and for serving a segment of the urban populace where coverage rates are lower than elsewhere. These same mechanisms can

be used later, on a wider scale, for a sustainable increase in service coverage.

**Environmental  
and social  
review:**

A good portion of the program-funded measures will be regulatory, administrative, operational, or financial in nature or calculated to share the lessons learned. Therefore, no appreciable environmental impacts are anticipated. The appraisals that will be done of each participating operator will be thorough evaluations of the social and environmental considerations associated with the delivery of the service and will propose preventive, corrective or mitigating measures.

The program-funded investments in civil works will be mainly targeted at reducing losses and rehabilitating facilities that are so obsolete or in such disrepair that the service cannot function properly. The program does not plan to finance expansions of water production systems or sewer systems. In exceptional cases, the program will finance minor works to extend water supply service to low-income sectors using the water volume recouped by controlling losses. In these cases, measures will be taken to ensure proper disposal of sewage. Civil society will play a role in devising the measures to improve and rehabilitate the works so that the latter reflect the community's priorities and consensus.

**Benefits:**

The program will benefit the participating service providers and the communities they serve (594,000 inhabitants). Service providers operating similar systems that familiarize themselves with the results of the strengthening and decide to adopt similar measures to improve management of their service, operating efficiency and financial sustainability, will benefit as well. There are close to 680 cities in the urban segment that this program targets (10,000 to 250,000 inhabitants). Together they account for 24% of the country's population. The program will also help develop a mechanism for funding the water supply and sanitation sector which the federal government will be able to replicate in future programs to promote effective improvements to service.

**Risks:**

The program's period of execution is relatively short, leaving no room for delays in startup and operation. The following measures have been included to keep the activities planned in the implementation timetable running apace: (i) a consulting firm will be contracted prior to the first disbursement to assist with program execution; (ii) incentives will be provided to induce the program's consulting firm and the firms providing technical advisory support to the service providers to discharge their functions promptly; (iii) any service supplier originally selected but found to be insufficiently committed to the program's objectives may be replaced by another from the alternates list; (iv) the program will be

flexible about reapportioning its proceeds to those service providers that perform best; and (v) the methods of working with the community and with users will be calculated to expedite decision-making and maximize the beneficial impacts of that participation. The period of execution is therefore considered adequate and will make it possible to analyze the viability of the proposed approach on a smaller scale before committing more resources in a future operation.

The service providers' problems are complex and will require coordinated and sustained effort in a number of areas, some of them external to the operators themselves. One factor considered when selecting the pilot cities was the degree of commitment that local authorities have to the program's objectives and to the proposed activities. Each participating system operator will also have the services of a technical advisor to provide support throughout program implementation.

**Coordination with other official development agencies:**

While the proposed operation was being prepared, contacts were maintained with other bilateral and multilateral finance institutions such as the World Bank, the North American Development Bank (NADBank), the Japan Bank for International Cooperation (JBIC) and Kreditanstalt für Wiederaufbau (KfW) to ensure proper coordination. The World Bank is preparing two operations in the sector that could potentially benefit from the proposed program's results.

**Special contractual clauses:**

**Special conditions precedent to the first disbursement:** (i) the CNA contracts the program's Consulting Firm (paragraph 3.3); and (ii) the program's Operating Regulations are in force (paragraph 3.30).

**Special conditions of execution:** (i) recognition of spending from the local counterpart (paragraph 3.35); (ii) earmarking and use of loan repayments (paragraph 3.28); (iii) upkeep of the works (paragraph 3.14); (iv) tariffs (paragraph 3.16); (v) annual program monitoring meetings (paragraph 3.39); (vi) midterm and final evaluations of the program (paragraph 3.40).

**Poverty-targeting and social sector classification:**

This operation qualifies as a social equity enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704). It does not qualify as a poverty-targeted investment (PTI) (paragraph 3.44).

**Exceptions to Bank policy:**

None.

**Procurement:**

Bank policy will be followed in the procurement of goods, the award of contracts and the hiring of services. International competitive bidding will be mandatory for: (i) construction contracts in excess of

US\$5 million; (ii) goods and services valued at over US\$350,000, and (iii) consulting contracts in excess of US\$200,000. The program's consulting firm will be selected and contracted by competitive bidding, in accordance with applicable federal legislation. The contracting will be done on the basis of the terms of reference negotiated and agreed among the CNA, BANOBRAS and the Bank.

## I. FRAME OF REFERENCE

### A. Service delivery and coverage

- 1.1 Decentralization of water supply and sewer services in Mexico began back in the 1980s, when the states assumed much of the responsibility and set up a variety of administrative systems through which to serve the public. In most cases, autonomous state businesses were established with regulatory and operating functions, called Comisiones Estatales de Agua y Saneamiento (CEAS) [State Water and Sanitation Commissions]. Elsewhere, the municipios themselves took on the job of operating and controlling the services, under a 1983 amendment of Article 115 of the Constitution that assigned them that function. Implementation of this clause of the Constitution has been a very gradual process given the municipios' limited administrative, technical and financial resources.
- 1.2 According to the most recent census data, some 11.5 million Mexicans do not have water supply service and 22.7 million do not have sewer service. As a rule, coverage is higher in the larger cities and lowest in the smaller cities and rural areas (Table I-1). There are also marked regional differences in service coverage; coverage in the southeastern states is well below what it is in the central and northern states. As for sewage treatment, only 21% of the total volume of sewage generated undergoes any degree of treatment.

**Table I-1. Service Coverage by Size of City or Community**

Size of City	No. Cities/ Localities	Population (Millions)	Coverage (%)	
			Water	Sewerage
Over 1 million	10	13.0	97.5	96.2
500,000 to 1 million	20	12.4	97.8	95.6
250,000 to 500,000	34	12.2	96.5	94.0
50,000 to 250,000	114	12.5	96.3	93.1
10,000 to 50,000	572	11.6	92.5	84.9
2,500 to 10,000	2,291	10.3	89.4	69.5
Under 2,500	196,328	24.6	68.9	37.5
<b>Total nationwide</b>	<b>199,369</b>	<b>96.6</b>	<b>88.5</b>	<b>76.5</b>

### B. The investment needed to meet the millennium development goals

- 1.3 Annual investments on the order of US\$1.7 billion, at 2001 prices, will be needed over the next 25 years in order to gradually increase water and sewer service coverage and achieve the millennium development goals. Another US\$500 million will be needed to operate and maintain the new investments. These figures exceed the service providers' current revenues collected (estimated at US\$1.4 billion in 2000), the bulk of which goes toward the cost of operating and maintaining the existing infrastructure. The sums currently earmarked for investment total

approximately US\$300 million. Hence, more ambitious measures will be needed to achieve the indicated investment levels.

**C. The sector's institutional framework**

- 1.4 The Comisión Nacional del Agua (CNA) [National Water Commission], created in 1989 as a decentralized administrative body, is the federal authority that administers the country's water resources. It conducts studies, builds works, and manages and operates the federal hydraulic infrastructure that preserves, conserves and improves the quality of the waters in watersheds and aquifers. The CNA also supports state and local investments, which are normally for water production works.
- 1.5 The CNA is under the Secretariat of the Environment and Natural Resources (SEMARNAT) whose function is to formulate and steer national policy on natural resources, establish guidelines that protect the environmental quality of Mexico's water resources, and ensure that the quality and volume of the supply match current and future demands.
- 1.6 The Banco Nacional de Obras y Servicios Públicos (BANOBRAS) frequently serves as a financial intermediary when federal and foreign funds are transferred to the states, municipios and service providers that need to invest in the sector.
- 1.7 As part of the decentralization process, the states, through their Comisiones Estatales de Agua y Saneamiento (CEAS) [State Water and Sanitation Commissions], have played an active role in planning and delivering service. Now that most states are shifting service delivery to the municipios, however, the CEAS' functions have been reduced to that of planning and providing direct support to rural communities and the smaller municipios. In some states like Nuevo León, Querétaro, Quintana Roo and Sonora, the CEAS or their equivalent continue to provide service to all or much of the state. State laws governing the water supply and sanitation sector have been amended in some cases so as to make operators more autonomous, allow service cutoff for nonpayment of bills, and promote the participation of private enterprise.
- 1.8 Gradually, the municipios have been shouldering their responsibility for controlling and operating the services. Those with greater administrative capacity have created decentralized operators with their own corporate identity and capital and frequently named Comisiones Municipales de Agua y Saneamiento (CMAS) [Municipal Water Supply and Sanitation Boards]. In other municipios, service is delivered directly by the municipio itself or through decentralized service providers. At the present time, there are just over 800 municipal service providers among the country's 2,410 municipios.

#### **D. The situation of the service providers**

- 1.9 Most existing service providers are weak and have a variety of problems with which to contend, the most common being the lack of institutional and administrative autonomy and the instability this creates in the executive and technical positions. A service provider's executives are appointed by the chair of the municipal board. Their appointments are generally for very short periods, precluding any possibility of management planning and cultivation of institutional strategies. The involvement of users and the community is in general very limited.
- 1.10 The internal organization of the service providers and their operating and management capacities are flawed in ways that hinder efficient service. This causes, for example, high levels of unaccounted-for water and low collection-efficiency rates. An estimated 50% of the total volume of water produced goes unaccounted for, including physical losses of water. The figure may be even higher, since at-source and residential metering covers less than the entire water supply system and facilities. According to nationwide studies, approximately 40% of every 1,000 liters of water drawn at the supply sources is lost in the system, and another 10% to clandestine taps. Of the remaining 50% distributed and billed to customers, revenue is collected on only 300 liters since the collection- efficiency rate is estimated to be 60%. These shortfalls conspire to prevent the desired levels of coverage and quality from being achieved.
- 1.11 The service providers' revenue is generally not sufficient to cover the costs of providing the service. This may be due to low tariffs, low collection efficiency or operating inefficiencies. A CNA study of a sample of 56 cities found that residential tariffs ranged from US\$0.14 to US\$2.40/m<sup>3</sup>. However, the outdated customer records and low collection efficiency meant that the average real income was just US\$0.15/m<sup>3</sup>. Based on this sample, rates would have to be significantly increased and/or expenses cut back for service providers to be able to cover all their obligations, including investments in both water supply and sanitation. Rates are approved in accordance with the laws of each state. In 10 states, the state congress sets the tariff, whereas in another 19 states the system operator's administrative board fixes the tariff; in one state, the governor decides what the tariff will be. Only 20 of the 31 states allow service cutoff for nonpayment.
- 1.12 According to surveys conducted by the CNA in conjunction with service providers, the population without water supply service is paying between US\$2.50 and US\$4.00/m<sup>3</sup> and consumes 6 m<sup>3</sup> per household/month. By contrast, the connected population consumes four times as much and pays, on average, US\$0.15/m<sup>3</sup>.
- 1.13 The tenuous financial condition of most operators and the fiscal constraints of municipal governments have combined to create an interest in private-sector involvement in the financing and construction of wastewater treatment plants, under build-operate-transfer (BOT) arrangements, mainly in the larger cities. In many

instances, this contracting arrangement has been combined with municipal security for borrowings, backed by fiscal transfers. While close to 40 projects of this type had been started by 1998, a significant portion of them ran into problems stemming from the contractors' own financial difficulties. The combination of the peso devaluation (1995) and low water and sewer tariffs complicated the payments process and timely implementation of the attendant sewer programs.

- 1.14 Apart from the cases mentioned above, the private sector's role has been very limited, except in the case of the concessions awarded to private operators in the cities of Aguascalientes (1993), Cancún (1994) and Saltillo (2001). The concession contracts in the case of Aguascalientes and Cancún ran into problems, mainly financial and regulatory in nature, and had to be renegotiated. The mixed venture created in Saltillo is majority publicly owned but administered by a private operator.

#### **E. The Bank's experience in the sector**

- 1.15 The Bank has had ample experience with water supply and sanitation projects in Mexico. The six most important projects approved in the last twelve years are listed in Table I-2. The project team was particularly careful to study the experiences learned under the Water Supply and Sanitation Program (loan 670/OC-ME) approved in 1992. Nearly half of the loan was canceled in the face of dampened demand for program funding, due to competition from programs more attractive to the service providers. Although off to a slow start, the Mexico Valley Sanitation Program (976/OC-ME) has corrected the problems it encountered and has launched its activities. The Bank is also supporting the Veracruz state government with reform and modernization of its water supply and sanitation sector, through a technical cooperation currently being implemented in the amount of US\$2 million (ATN/MT-7921-ME). This cooperation supports improved regulation and promotion of private-sector participation in service management.

**Table I-2. Projects involving measures in the water supply and sanitation sector (1990-2002)**

<b>Loan</b>	<b>Name</b>	<b>Amount (US\$ million)</b>	<b>Year Approved</b>	<b>Execution (%)</b>
603/OC-ME	Monterrey IV Water Supply and Sewerage Project	325	1990	100
670/OC-ME	National Water Supply and Sewerage Project	200*	1992	100
976/OC-ME	Mexico Valley Sanitation Program	365	1996	0.9
1161/OC-ME	Sustainability of Water Supply and Sanitation Services	310	1998	60
1213/OC-ME	State and Municipal Strengthening Program	400	1999	100
1214/OC-ME		400		76
1383/OC-ME	Financial and Institutional Strengthening of States and Municipios	300	2001	2.5

\* The disbursed amount was US\$96.7 million, as US\$103.3 million was canceled.

- 1.16 The principal lessons learned during this period underscore how important it is that institutions and political officials are clearly committed to the success of the operations. Apart from the commitment issue, the sector has been profoundly

affected by: (i) the disparity between the responsibility for the service (municipal) and the availability of financial resources (mainly federal); (ii) the excessive influence that politics exerts on the service; and (iii) a lack of clarity and independence in assigning planning, regulatory and operating functions.

**F. Coordination with other programs and with bilateral and multilateral agencies**

1.17 The following programs figure prominently among those currently underway in the water supply and sanitation sector: (i) the joint CNA/BANOBRAS Programa para la Modernización de Organismos Operadores de Agua (PROMAGUA) [program to modernize water supply systems operators] to promote private-sector participation in cities with populations over 50,000; (ii) the BANOBRAS-sponsored Programa de Fortalecimiento Financiero de Estados y Municipios (FORTAFIN) [state and municipal financial strengthening program] to help eligible decentralized public entities finance very economically profitable infrastructure projects; and (iii) the Programa de Nuevo Impulso al Desarrollo Municipal (PRONIDEM) [the program to boost municipal development], another BANOBRAS program targeted at small municipios that do not have the basic public services and have not had access to credit. The proposed program complements the local efforts and will make future interventions in the sector more effective.

1.18 During preparation of the proposed operation, contacts were maintained with other bilateral and multilateral finance institutions like the World Bank, NADBank, the JBIC and the KfW to ensure proper coordination. The World Bank is currently considering two operations in the sector. Although they have not fully taken shape, they could potentially benefit from the results of this program. The World Bank is also preparing an infrastructure project in the state of Guanajuato, involving investments in water supply and sanitation and certain sector-specific studies, including one on the sector's legal, regulatory and institutional framework. The proposal should be completed in November. NADBank's activities target the area along the border with the United States. The JBIC has a project underway involving three cities in Baja California (Tijuana, Ensenada and Mexicali) and is preparing another for metropolitan Guadalajara. The KfW is not funding loans in the sector.

**G. The Bank's strategy in the country and the rationale for the proposed operation**

1.19 The Bank's strategy in Mexico rests on four main pillars: (i) modernization of the social sector and reduction of extreme poverty; (ii) regional integration; (iii) modernization of the State, decentralization and subnational development; and (iv) improvement of competition by lowering barriers to productivity and through efficient private-sector development. The proposed operation fits into that strategy as it will advance modernization of a service of great social interest. It also fits in with the decentralization processes in progress as it will strengthen municipal

institutions operating water supply and sanitation services. The program complements the Bank's efforts in the sector, which have targeted rural areas and the larger cities.

## **H. The strategy of the proposed program**

- 1.20 The pilot program proposes to carry out institutional reforms that promote the operators' administrative autonomy, financial sustainability, operating efficiency, equitable access to the service they provide, and stakeholders' participation. These measures will be carried out at five decentralized municipal service providers representative of the conditions under which services are provided in mid- and small-sized cities. The operators selected serve a population of between 10,000 and 250,000. The operators that, as a rule, require the most administrative and institutional support are those serving communities of this size. The latter account for 24% of the country's total population. The larger cities normally have more human, administrative and technical resources and operate on a scale large enough to enable them to rationalize operating costs. Communities of fewer than 10,000 people generally do not have independent, decentralized municipal operators and therefore require a different approach.
- 1.21 This operation has been designed as an **innovation project**<sup>1</sup> because it seeks to:
- a. Put into practice a **novel approach** of working with service providers that have difficulty qualifying for financing because of their financial condition and institutional weakness. This approach is based on: (i) a comprehensive appraisal of the operators' most pressing problems, including analysis of the political viability of reforms and of better targeted corrective measures; (ii) a financing arrangement under which BANOBRAS grants credit to operators based on the progress expected to be achieved with the planned improvements, not on their initial creditworthiness; and (iii) technical accompaniment services provided to the participating operators during program implementation so that improvements and reforms are implemented and know-how shared. The funds will be transferred in the form of a loan and a subsidy, a combination intended to serve as an incentive to carry out the strengthening and reform measures.
  - b. Generate **positive near-term effects** within the operators that will move them up to a "graduation" level that qualifies them for credit based on their borrowing capacity. The funding for priority civil works will be done with very limited resources. It will be tied to the improvements in the operators' performance indicators and is included only as an inducement to program participation.

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<sup>1</sup> The reasons explained here are consistent with the objectives established for *innovation loans* which state that they are to support experimental or pilot programs where necessary for gaining experience in complex areas and matters. It could help to: (i) demonstrate the potential of taking a specific approach to overcome a development constraint; (ii) achieve consensus; (iii) gather valuable institutional experience, and (iv) enhance institutional capacity prior to larger-scale programs. (see PR-808, October 2000).

- c. Promote genuine mechanisms of **citizen participation** as an incentive to improve performance among operators, as a means to generate a sense of ownership and awareness among stakeholders and thereby facilitate implementation of necessary but often unpopular measures, and as a means to encourage transparent management of the available resources. Because civil society's participation has never figured in urban projects within this sector and because conditions in rural area are different, a special approach is needed that is different from the approach used in traditional urban projects and rural projects.
  - d. Encourage solutions to the problems of the **low-income population** of small- and mid-sized cities, especially those not connected to the water system.
  - e. **Develop and disseminate experiences** through workshops, seminars and publications that increase awareness of Mexico's problems in this sector and that share the lessons learned with other similar institutions. A given city's particular circumstances, mainly the size of the urban area, the existing institutional structure, the legal framework, and the hydrological features and socioeconomic characteristics of the district, are difficult to evaluate in depth in large-scale programs involving multiple works.
  - f. **Lay the groundwork for and ensure the success of a larger-scale operation in the future.** Despite having achieved some objectives in the area of improved services, global, domestic programs in Mexico have not truly modernized the sector or appreciably increased the operators' administrative efficiency, except in a handful of cases. The proposed program will develop a financing mechanism that could be replicated on a larger scale and will be useful in cultivating a more sustainable policy supporting sector development.
- 1.22 Acknowledging the importance of promoting a larger-scale investment program, an operation has been planned for 2005 called *Investment and Reform in the Water Supply and Sanitation Sector* (ME-0251). The experience gained with the proposed project will be very useful in designing the 2005 operation and will be instrumental in helping it to achieve its objectives. The lessons learned will also be useful to the *Multiphase Program in Financial and Institutional Strengthening of States and Municipios - FORTEM II* (loan 1383/OC-ME) approved in December 2001, which involves activities and investments in the water supply and sanitation sector.
- I. Selection of operators**
- 1.23 As the proposed program was being prepared and analyzed, the five operators that would be invited to participate were selected. The following criteria were used to make the selection, which started from an initial group of 26 operators:
- a. **Geographic representation.** The purpose of the distribution of the service providers is to keep the country's northern, central and southern regions

represented in the group of participating cities. Geographic representation is important because of the uneven distribution of water resources nationwide, and because the program must garner more widespread acceptance for the lessons learned.

- b. **Representation in terms of size.** Size is a decisive factor for the service providers' economies of scale and operating capacity. The cities were classified into small- (10,000 to 50,000 inhabitants) and mid-sized (50,000 to 250,000 inhabitants).
  - c. **Municipal, decentralized public operator.** A municipal, decentralized and independent service provider is the institutional arrangement that best approximates the provision of the Mexican Constitution (Article 115) and, within the public sector, the one most likely to have the necessary autonomy. This criterion disqualified those cases where service was provided by the state by way of a CEAS, or by the municipio directly.
  - d. **Political feasibility.** At the outset, a government-continuity criterion was included to eliminate states that had municipal elections slated for the period of program execution, the thinking being that a change of that nature would pose an unpredictable risk. This criterion was ultimately dropped because it was considered too restrictive, given that municipal governments change every three years and the program would have to learn to adjust to events of this type. In lieu of the municipal-election criterion, a political-feasibility analysis was done of the proposed measures, which included visits to the communities most likely to be included in the program. Those visits looked at the potential commitment that the director of the service operator, the chairman of the municipal board and community representatives might have to the program's purposes and objectives.
  - e. **Payment of fees to the federal government.** The last criterion was whether service providers were current on the fees charged for use, exploration and exploitation of national waters and for the use of the receiving bodies. Those that were not current on these payments were disqualified.
- 1.24 Of the 26 operators, seven met the criteria. A preliminary appraisal was done of these seven, and a poll was conducted to see how the program would be received among local authorities, as well as study of the social and political milieu in which the service providers operated. This was done with funding from the IDB-Netherlands Water Partnership for Integrated Water Resources Management in Latin America and the Caribbean (TC-03-03-00-4). The findings were analyzed as a whole and revealed the potential for successful introduction of various corrective measures in the near term. Table I-3 lists the five service providers selected to participate in the program and the two that, in principle, were classified as possible alternates.

**Table I-3. Participating service providers**

City	State	Operator	Geographic Position	Population
<b>A. Selected Service Providers</b>				
1. Zacatecas <sup>1</sup>	Zacatecas	JIAPAZ	N	243,000
2. Tapachula	Chiapas	COAPATAP	S	191,000
3. Atlixco	Puebla	SOAPAMA	C	86,000
4. Coatepec	Veracruz	CMAS	C	46,000
5. Tepeaca	Puebla	SOAPAT	C	28,000
<b>B. Alternates</b>				
1. Fresnillo	Zacatecas	SIAPASF	N	120,000
2. Escuinapa	Sinaloa	JUMAPAE	N	53,000

<sup>1</sup> The service provider in the Zacatecas area is intermunicipal and serves three other communities: Guadalupe, Veta Grande and Morelos.

- 1.25 The preliminary appraisal compiled information on legal, regulatory, administrative, technical, operational and financial considerations of the service providers and on the political and social milieu in which they operate and the potential support for a modernization program. Table I-4 summarizes some of the main features of the services and the dates of the next state and municipal elections. The data are preliminary and will be confirmed while the program is underway. The preliminary appraisal that used this method found that the institutional, legal, technical and financial conditions are there to make the proposed program viable.

**Table I-4. Main Features of the Services**

	Zacatecas	Tapachula	Atlixco	Coatepec	Tepeaca
Number of employees	424	278	103	40	20
Water supply coverage (%)	91	78	99	80	93
Sewerage coverage (%)	--	58	91	73	70
Micro metering (%)	83	96	14	11	68
Physical efficiency (%)	52	47	72	43	21
Commercial area efficiency (%)	93	83	96	81	81
Annual collection (US\$ millions)	5.9	3.0	1.2	0.38	0.20
Cost per m3 billed (US\$)	0.59	0.39	0.19	0.21	0.70
Average tariff per m3 (US\$)	0.48	0.33	0.20	0.19	0.57
Average amount collected per m3 billed (US\$)	0.45	0.27	0.19	0.15	0.46
Next gubernatorial elections	July 2004	Aug. 2006	Nov. 2004	Oct. 2004	Nov. 2004
Next municipal elections	July 2004	Oct. 2004	Nov. 2004	Oct. 2004	Nov. 2004

## II. THE PROGRAM

### A. Objectives

- 2.1 The program's objective is to assist the modernization and reform of Mexico's water supply and sanitation sector by conducting pilot projects that promote autonomy, efficiency, equitable access, citizen participation and the financial sustainability of the operators that provide these services in small- and mid-sized cities. The program will seek to: (i) demonstrate the real potential for improving service quickly and with limited resources; (ii) build a consensus within the community concerned and support for the required measures; (iii) learn and share experiences that will be useful in similar communities; and (iv) lay the groundwork for a larger-scale investment and institutional development program.

### B. Components

- 2.2 The program has four main components: (i) preparation of the participating service providers' business plans; (ii) implementation of the improvements and modernization measures; (iii) investments in priority civil works; and (iv) evaluation and dissemination of the results obtained and the lessons learned.

#### **1. Preparation of the business plans (BPs) of the service providers (US\$1.72 million)**

- 2.3 To determine just how much intervention each participating service provider will need, the program's proceeds will be used to fund a comprehensive appraisal of the service to identify problems and measures that require priority attention for the service provider to be sustainable. The findings of this appraisal will form the service provider's *Business Plan (BP)*, which will propose measures targeted at increasing the service provider's income, efficiency and autonomy, and equity in the delivery of the service. Estimates are that preparation of the BP will cost an average of US\$240,000 per service provider, which includes a period of technical advisory services while the modernization and strengthening measures are being implemented. The BP will feature a detailed analysis of the following four main issues:

- a. **Analysis of the legal framework and the political and institutional milieu.** A review will be done of relevant state laws governing service delivery (statutes, orders, regulations, etc.), in order to pinpoint possible gaps, limitations or obstacles that might impair the service provider's operations. The necessary near-term adjustments will be identified. Special attention will be given to singling out rules whose approval does not necessitate amendment of existing laws and that concern the following: (i) the type of supervision and regulation to which the service provider is subject; (ii) the autonomy and capacity of the

service providers; (iii) the mechanisms for citizen participation; (iv) the process whereby tariffs are analyzed, revised and approved; (v) the possibilities of subsidies for the low-income population; (vi) environmental control and service quality standards; (vii) penalties for noncompliance; and (viii) mechanisms for settling disputes.

With regard to the political and institutional milieu, the analysis done in the preliminary analysis will be elaborated upon using the same method and instruments therein developed as they are dynamic tools that can be used to update the information periodically. In this way, the proposed program will monitor for: (i) the principal relevant actors and the emergence of new actors; (ii) obstacles to the introduction of the improvements and modernization measures; and (iii) the correlation of forces for and against those measures. The political feasibility analysis done as part of the BP will make it easier to introduce the improvements and modernization measures described under component 2.

- b. **Evaluation of the organizational structure and of citizen participation.** The organizational structure currently used to provide the service will be examined and structures that make service providers more impervious to election timetables and political influence and that enhance civil society's participation will be discussed. The service provider's internal structure, especially apropos decision-making, selection of executives and other officials, mission-critical functions like planning, investment, supervision, business management, financial and accounting management, administration, information flows, and the like, will have to be examined carefully. The possibility of introducing private-sector participation, in its various forms, may also be examined.

In the case of citizen participation, the BP's objective will be to identify how citizens are participating at the present time, establish what other modalities of citizen participation could be introduced or how existing ones might be improved, and propose specific instruments to strengthen that participation. Citizen participation will be examined at four key junctures in the projects to strengthen the service providers: (i) decision-making within the service provider; (ii) the building of consensus around difficult or unpopular measures to facilitate their implementation; (iii) the operator's execution of activities and programs; and (iv) monitoring, control and evaluation of the service provider's actions. Particular attention will be paid to the role that women play and how their participation at these four critical junctures might be enhanced.

- c. **Evaluation of the service area and of the informal supply system.** The situation of the service, the condition of the facilities, coverage, sources from which the water is drawn and the receiving body, and other important service-provider issues will be examined. Ways to improve personnel productivity, increase operating efficiency, lower the costs of delivering the service, reduce

physical and business losses and, if the financial situation permits, increase service coverage will be examined and recommended. If increased service coverage is considered, the technical, socioeconomic and environmental viability of the proposed works will be evaluated. The situation of those people not connected to the system will be analyzed to identify who their suppliers are, the sources, prices, quality of the product, and so on, in order to develop, whenever possible, more equitable and less costly supply arrangements.

- d. **Examination of the commercial and financial situation.** The short- and medium-term adjustments or modifications that the service provider will have to introduce in its way of doing business in order to increase its earnings will be based on a thorough analysis of its business situation and its potential for improvement. Emphasis will be on the following: (i) improving collections; (ii) restructuring the tariff schedule to encourage less consumption and promote greater fairness in payments; (iii) the tariff rate in relation to the cost of providing the service; (iv) the public's capacity to pay for the service and the effect that various subsidy arrangements would have; and (v) the level of communication between business and customers as a vehicle for agreeing upon an adequate tariff plan. Using the information obtained and the analysis of the present financial situation, a set of measures will be prepared to improve the operator's financial position in the near term, as will a plan of priority investments to improve and expand service that can be funded with the operator's own earnings and with borrowed funds. The viability of this plan will be demonstrated by means of financial projections and an analysis of the service provider's borrowing capacity once the measures are introduced.

## **2. Implementation of the improvements and modernization measures (US\$5 million)**

- 2.4 Based on the BP's findings and recommendations, the program will finance implementation of improvements and modernization measures, which could include the following:

- a. **Institutional and regulatory**, such as the introduction of new regulations and standards. These measures will facilitate implementation of more explicit regulatory schemes introduced as part of a larger-scale future operation or by the state government itself.
- b. **Organizational and participatory**, such as changes in the service provider's organic structure, promotional programs and community and stakeholder participation programs. In the area of citizen participation, the program will finance the introduction of measures and instruments in those areas that the BP has identified as having potential. Each service provider will select at least one action or instrument in each of the four categories listed below, examples of which follow: (i) in the area of **decision making**: changes in the makeup and

functioning of the service providers' executive bodies; citizen consultations, and establishment of windows for receiving citizens' suggestions; (ii) in the area of **consensus building**: forums, consultations, customer satisfaction surveys, public hearings, sector consensus-building panels, creation of measures that make the service provider's budgetary, financial and other information available to the public, and mechanisms for settling disputes; (iii) in the area of **execution of programs and projects**: use of electronic media for the bidding procedures, registers of qualified suppliers; and (iv) in the area of **monitoring, control and evaluation**: citizen comptrollerships, information and complaint offices, publication of the service providers' reports, public accountability hearings.

- c. **Operational**, such as updating the property records of the systems, installations and equipment, procurement and installation of the macro and micro meters, leak detection and correction programs, and plans to divide the systems into districts for purposes of controlling water pressure.
  - d. **Business and financial**, such as updating the customer register, modernizing the accounting and data processing systems, improving the procedures for meter reading, billing and collection, changes to the structure and level of tariffs, and procurement of any computer equipment for the service provider to operate properly.
- 2.5 The program will also finance plans to train the participating service providers' executive, administrative and operational personnel. These plans will conform to the objectives mapped out in the BP and will be an integral part of the program's activities in the administrative, financial and operational areas.

### **3. Investments in priority civil works (US\$7.7 million)**

- 2.6 The BP will identify and recommend the priority civil works that the service provider will need as part of its strategy to make the service sustainable. The following are among the works that the program's proceeds could, in principle, finance: (i) improvements to existing facilities, mainly to reduce losses and guarantee the safety of the water supply; (ii) rehabilitation of equipment and installations whose obsolescence or disrepair impairs or threatens to impair service; (iii) minor expansions to systems that distribute water to low-income sectors by using water losses the system is able to recoup by controlling losses; and (iv) temporary, low-cost supply systems for the population not connected to the service and that would not necessarily require expansion of the system. A technical, socioeconomic and environmental feasibility analysis must be prepared to justify each and every civil work.

#### **4. Evaluation of results and dissemination of best practices (US\$700.000 million)**

- 2.7 Under this component, program proceeds will be used to compile, process, analyze and evaluate the results that service providers achieve with implementation of the program-funded improvements and modernization measures. The program will also finance the initial activities to induct service providers into the program and the activities to disseminate best practices, such as: (i) establishment of mechanisms enabling peer dialogue so that service providers can share their experiences and information and learn from one another; and (ii) best practices and lessons learned disseminated by publishing articles in sector-related journals, organizing seminars, participating in forums and staging workshops.<sup>2</sup> To perform this function, a database will be created to compile, process and analyze the data that the service providers will submit concerning the progress made on the BP's implementation since program startup. This information will cover the various areas in which the program is operating and will be based on verifiable performance indicators.

#### **C. Program cost and financing**

- 2.8 The program will cost a total of US\$18 million. The following distribution is proposed to finance that amount: (i) US\$10 million from the IDB's ordinary capital; (ii) US\$8 million from the local counterpart and distributed as follows: US\$6.1 million to be contributed by the CNA through budget allocations to the participating localities under the agreement with BANOBRAS, and another US\$1.9 million from the service providers. The program's budget, in its entirety, appears in the table below:

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<sup>2</sup> The best practices are for all areas in which the program is active, including the environmental area.

**Table II-1. Cost and financing  
(in US\$ thousands)**

Category or Component	IDB	Local Counterpart		Total
		CNA	Service Provider	
<b>1. Administration and supervision</b>	<b>300</b>	<b>200</b>		<b>500</b>
1.1 Coordination and supervision		200		200
1.2 Evaluation	200			200
1.3 Auditing	100			100
<b>2. Components</b>	<b>7,890</b>	<b>5,530</b>	<b>1,700</b>	<b>15,120</b>
2.1 Preparation of business plans/technical advisory services		1,290	430	1,720
2.2 Institutional strengthening and modernization	2,500	2,000	500	5,000
2.3 Investments in priority civil works	5,390	1,540	770	7,700
2.4 Advisory services, evaluation and dissemination of results		700		700
<b>3. Unallocated</b>	<b>410</b>	<b>370</b>		<b>780</b>
3.1 Contingencies	410	370		780
<b>4. Financial expenses</b>	<b>1,400</b>		<b>200</b>	<b>1,600</b>
4.1 Interest	1,400			1,400
4.2 Credit fee			200	200
<b>5. Total</b>	<b>10,000</b>	<b>6,100</b>	<b>1,900</b>	<b>18,000</b>

### III. PROGRAM IMPLEMENTATION

#### A. Borrower, guarantor and executing agency

- 3.1 The borrower will be BANOBRAS and the guarantor will be the United Mexican States. BANOBRAS will also be the program's executing agency and as such will: (i) process disbursement requests; (ii) put together the program reports for submission to the Bank; (iii) maintain the program's financial-accounting system; (iv) prepare the program's annual operating plans and their budget; and (v) coordinate the financial elements of the program, which includes conducting activities related to the financing earmarked for the participating service providers. BANOBRAS will name a program coordinator for the activities that its various units and departments will carry out.

#### B. Participating service providers

- 3.2 The CNA will serve as technical coordinator of the entire program and will execute component 4 (evaluation of results and dissemination of best practices). CNA will also make a local counterpart contribution of US\$6.1 million, for which it has entered into an interinstitutional agreement with BANOBRAS setting out each party's obligations.
- 3.3 As technical coordinator, the CNA's main functions will be to: (i) provide *permanent technical advisory services* to the participating service providers by way of a specialized firm (the Consulting Firm) which it will contract for this purpose; (ii) monitor for fulfillment of the technical indicators that the service providers are required to achieve; and (iii) prepare reports on its activities for BANOBRAS to consolidate and deliver to the Bank. To carry out its functions, CNA will set up a team consisting of a program coordinator and a technical support official. **The contracting of the Consulting Firm, through a competitive process and in keeping with the terms of reference previously agreed upon with the Bank, will be a condition precedent to the first disbursement of program proceeds.**
- 3.4 The Consulting Firm's main functions include detailed planning and monitoring of the program's activities, assistance to service providers in contracting the technical advisors to work with each of them, staging of the initial induction activities for service providers, and support for the activities conducted to evaluate results and disseminate best practices. The Consulting Firm will constantly coordinate with the CNA and BANOBRAS.
- 3.5 The service providers will execute their own projects and hence will prepare their own business plans and implement the improvements, modernization measures and priority investments financed with program funds. They will also handle the

contracting for the necessary goods, services and works. Each service provider will also have a *technical advisor* to help prepare and implement its business plan.

- 3.6 The technical advisor will also assist the service provider with preparation and presentation of credit applications to BANOBRAS, with supervision of the expenses incurred to ensure their eligibility, their adherence to the program's procurement procedures and the physical progress of the program, and with the gathering of information that will enable the service provider to follow the progress of each project and meet the performance indicators. The terms of reference for the contracting of these advisors are currently being negotiated with the CNA.

### **C. Technical and interinstitutional coordination**

- 3.7 Representatives from BANOBRAS and the CNA will form an *Interinstitutional Coordination Committee* for constant coordination of the technical and financial elements of the program. The Committee will meet at least quarterly during the program. The following will be some of its main functions: (i) propose general guidelines for preparation of the program's annual operating plans and annual budget; (ii) propose ways of supporting any efforts that proper execution of the program may require of State institutions; (iii) enlist the political participation of federal authorities, governors, and mayors whenever necessary; (iv) be abreast of and, when necessary, comment on the program's reports and financial statements; and (v) propose adjustments to the Operating Regulations. As for the operators' projects, the Interinstitutional Coordination Committee will approve the business plans that the operators submit and the specific performance indicators that each operator is committed to achieving, and will monitor their performance. The formation of the Interinstitutional Coordination Committee is part of the interinstitutional agreement entered into by BANOBRAS and the CNA.

### **D. Implementation of program components 1, 2 and 3**

- 3.8 **Cycle of activities.** Preparation of a selected operator's business plan, implementation of its improvements, and construction of its priority civil works will be based on the following sequence of events: (i) the Consulting Firm conducts induction activities to confirm the operator's willingness to participate in the program; (ii) talks begin with local authorities to obtain state and/or municipal government support, guaranteeing the payment obligations assumed by the operator, as provided in the financial arrangement described in paragraph 3.22;<sup>3</sup> (iii) operators submit their request to participate in the program to the Interinstitutional Coordination Committee, stating that they agree to abide by its rules and contribute local counterpart resources, and that they have the support of the state and/or municipal authorities; (iv) each operator hires its technical advisor;

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<sup>3</sup> By state law, state congresses must give their express consent before municipios can sign or contract debts that will outlive the municipal administration's term of office.

(v) the business plan is prepared and submitted to the Interinstitutional Coordination Committee for approval; (vi) the operator submits its credit application to BANOBRAS; (vii) BANOBRAS determines the borrower's maximum credit limit and the terms and conditions to qualify for the loan funds; (viii) the credit commitment contract is executed; (ix) the operator implements the improvements; (x) BANOBRAS revises the borrower's credit limit based on the latter's results; (xi) the operator builds its priority civil works; and (xii) monitoring, supervision and data collection are constant throughout this sequence of events.

**3.9 Implementation phases.** Three phases are planned for implementation of the projects (see Table III-2). The first phase will be the *business plan*; the operator will have access to nonreimbursable funds for preparation of the business plan. The Interinstitutional Coordination Committee must approve the business plan before the operator can move to the second phase of implementation, which is *implementation of the improvement measures*, and become eligible for the financing earmarked for this purpose, which will be part loan and part subsidy. The operator can move on to the third and final phase, *implementation of priority civil works*, and become eligible for the financing for these works only when it can show that it has achieved the performance indicators agreed upon in the business plan. At each of the three phases, Interinstitutional Coordination Committee will confirm that the eligibility conditions have been satisfied.

**3.10 Structure of financing.** In addition to the financing provided by BANOBRAS and the CNA, each operator will be required to make a contribution to the local counterpart. The distribution among credit, nonrepayable funds, and local contribution<sup>4</sup> appears in the table below. All nonrepayable funds for will come from the CNA's contribution.

**Table III-1. Structure of the financing to the service providers**

Component	Credit %	Nonrepayable funds %	Service provider %
1. Business plan and technical advisory services	--	75	minimum 25
2. Institutional strengthening and modernization	up to 50	40	minimum 10
3. Investments in priority civil works	up to 70	20	minimum 10

**3.11 Performance indicators.** The business plans will establish a baseline in every area of activity and will project the improvement that the various strengthening and modernization measures will achieve. The logical framework (annex 1) contains a

<sup>4</sup> The local counterpart will come from the Programa de Devolución de Derechos (PRODDER) [program to return water-use fees] established by the CNA.

list of the performance indicators that will be monitored at every participating service provider. The business plans will measure current performance levels and estimate the anticipated improvement. This estimate will be used to monitor the service provider's performance and will make it easier to analyze the data used at events where the lessons learned are shared. That information will be taken from the reports submitted by the service providers' technical advisors and by the program's Consulting Firm.

- 3.12 **Implementation timetable.** The table below is a tentative schedule of the most likely sequence of activities at each service provider:

**Table III-2. Tentative timetable for the projects' execution**

Component	Year 1	Year 2	Year 3
Signing of the loan agreement	XXXX		
1. Business plan (BP)			
a. Contracting of the technical advisor	XXXX		
b. Preparation of the BP	XXXX		
c. Technical advisory assistance	XXXX	XXXXXXXXXXXX	XX
2. Strengthening and modernization			
a. Regulatory issues	X	XXXXXXXX	
b. Organizational structure	X	XXXXXXXX	
c. Financial management	X	XXXXXXXX	
d. Operational management	X	XXXXXXXXXXXX	
e. Training		XXX	
3. Priority civil works			
a. Designs <sup>5</sup>		XXXX	
b. Contracting		XXXXXXXX	
c. Construction			XXXXXX

- 3.13 **Financial terms and conditions of the credit.** The financial terms and conditions of the credit component will include: (i) an amortization period of up to 20 years; (ii) interest rates set by BANOBRAS, pegged to the rate of the Fondo de Apoyo a Estados y Municipios (FOAEM) [State and Municipal Support Fund];<sup>6</sup> (iii) a grace period of up to 24 months on principal and interest; and (iv) increasing amortizations of principal and payment of interest on unpaid balances.

- 3.14 **Credit commitment contract.** The contract between BANOBRAS and the operator will be a dynamic instrument that, as of the date of signing, will include at least the following: (i) the maximum amount the operator is eligible to receive and the conditions on access at each phase; (ii) a definition of the maximum percentage

<sup>5</sup> The conclusions in the BPs will be sufficiently detailed to allow the recommended measure to be implemented in the very near term, without the need for further studies. Construction designs (detailed designs) will only be required in cases involving construction work or rehabilitation or expansion of the distribution system and will be prepared subsequent to the BP.

<sup>6</sup> The loans to operators will be in local currency. The rates that BANOBRAS uses are based on the cost of covering FOAEM's exchange risk. The FOAEM rates reflect the country's capture rates from 1 to 10 years.

- that can be allocated in the form of a subsidy at each phase (paragraph 3.10); (iii) the eligible expenses and the contracting modalities authorized under the program; (iv) the credit component's repayment mechanism; (v) the operator's obligation to have a plan for maintaining the facilities and equipment that conforms to BANOBRAS regulations on the subject; (vi) the operator's obligation to set tariffs at levels that keep it financially self-sufficient; and (vii) the mechanisms that the service provider must put into place for accounting, financial and physical monitoring of spending. The following will form an integral part of the credit commitment contract: (i) the approved business plan containing modernization measures and priority civil works; (ii) the board resolution authorizing the operator to obtain credit under the terms and conditions set by BANOBRAS and committing to contribute the necessary counterpart resources.
- 3.15 **Borrowing limit.** BANOBRAS will establish a borrowing limit for each service provider, based on the projected net incremental flow resulting from the implementation of the improvements and modernization measures called for in the operator's business plan. BANOBRAS can review the borrowing limit once the improvement measures have been implemented.
- 3.16 **Tariffs.** The tariff structure must produce revenues sufficient to cover the service provider's expenses, including management, operation, maintenance and, as far as possible, depreciation. BANOBRAS must reach agreement with the operators on what measures should be taken to that end.
- 3.17 **Mechanism for using the program funds.** To supplement the resources needed to execute its business plan, the operator must open and maintain a bank account exclusively for the program, into which federal funds, its own resources and credit proceeds are deposited in accordance with the mechanisms agreed on in the program Operating Regulations (see paragraph 3.30). The service provider may not begin contracting the goods, works and services directly related to the activities planned in its business plan until it has contributed the counterpart for the expenditures it will incur.
- 3.18 **Payments system.** The operator will pay the suppliers directly. The method of payment will include advances based on duly signed contracts, and reimbursement of subsequent expenditures, provided they are eligible expenditures made in accordance with the program's procurement standards and their physical progress is duly certified by either the construction supervisor or each service provider's technical advisor. The service provider will keep the originals of the supporting documents and will send BANOBRAS copies certified by the head of the service provider's internal audits unit or, absent that, by its director.
- 3.19 **Reassignment of funds.** Service providers that wish to use the loan proceeds must meet the following deadlines: (i) they have three months, running from the date of the induction workshop, to sign the credit commitment contract; (ii) they have

12 months, running from the signing of the credit commitment contract, to have a BP approved by the Interinstitutional Coordination Committee; and (iii) they have 20 months, running from the signing of the credit commitment contract, to meet the performance indicators that qualify them to apply for the funds for implementation of priority civil works. Should a service provider fail to meet these deadlines, BANOBRAS, the CNA and the Bank may reallocate the originally assigned funds among the other service providers.

- 3.20 **The credit component's repayment mechanism.** To promote increased responsibility and autonomy on the part of service providers, the credit program's payment mechanism has been designed to be as secure and functional as possible and is based on the service provider's own financial flows. Accordingly, each operator will set up a separate account into which all revenues it receives for services provided will be deposited and in which the revenues to cover its operating and maintenance costs will be separated from the net incremental flow generated by the improvements and modernization measures adopted.<sup>7</sup> The operator will have the option of using the net incremental flow to form an irrevocable trust for loan payments or to go toward prepayments.
- 3.21 The irrevocable trust option will operate as follows: (i) contributions to the trust will begin once the institutional improvement measures begin to generate net incremental flows; (ii) the trust must always have a balance equal to at least six months' amortization payments; (iii) the contributions to the trust in excess of the six months of amortization will be available to the service provider to use at its discretion; (iv) if the minimum balance in the trust drops to three months of amortization, remedial measures will be instituted (BANOBRAS and CNA audits and a remedial plan of action); and (v) if the funds in the trust are exhausted, the service provider will be in noncompliance with its repayment obligation and the guarantee will be executed (paragraph 3.22).
- 3.22 The second option (prepayment) is equivalent to a shorter grace period. Its main features are: (i) once net incremental revenues start to be generated, they will be used to prepay at least six months of credit amortization installments; (ii) once six months have been prepaid, the remaining net incremental revenues will be at the operator's full disposal; (iii) subsequently, payments made to BANOBRAS will be applied to the next amortization installments; (iv) in the event that the prepayments are insufficient to cover the amortization installments of at least the following three months, corrective action will be taken (inspection by BANOBRAS and the CNA and a corrective action plan); and (v) the operator will incur default upon nonpayment of an amortization installment when due.

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<sup>7</sup> In real terms, the net incremental operating cash flow will be the difference between the net cash flow with project and without. Net cash flows are the difference between the service provider's operating income and total operating costs. The BP will estimate these values.

- 3.23 The service provider's repayment obligation is guaranteed by the municipio, charged against its share of federal revenues. The financing contract between BANOBRAS and the service provider will include the necessary guarantee-related clauses and must be signed by the municipio as well.

**E. Implementation of component 4 (evaluation of results and dissemination of best practices)**

- 3.24 The CNA will implement this component with the Consulting Firm's support. The baseline used when doing the evaluations will be the BP prepared for each service provider, with its respective performance indicators. Progress will be measured by examining the quarterly reports that the service providers will submit and by visiting the service providers. The findings will be added to the database, which the CNA will keep up-to-date.
- 3.25 The principal questions that will steer the evaluation of results are: (i) whether the service providers have succeeded in improving their financial performance and operating efficiency; (ii) whether the participation of users and the community has made it easier to introduce the corrective measures and modernizations; (iii) whether the regulatory and organizational measures adopted have made the operators more autonomous and less susceptible to political interference; (iv) whether the lessons learned have been duly passed along to similar service providers; and (v) whether the program's results are helping to design a future, larger-scale program.
- 3.26 The activities related to disseminating best practices and introducing the peer dialogue mechanisms will be carried out by a specialized firm or agency contracted by the CNA. In principle, the Centro Mexicano de Capacitación en Agua y Saneamiento (CEMCAS) [Mexican Water and Sanitation Training Center] and the Asociación Nacional de Empresas de Agua y Saneamiento de México (ANEAS) [National Association of Water and Sanitation Businesses of Mexico] could offer these services. The activities to induct service providers into the program will be carried out by the CNA-contracted Consulting Firm.

**F. The program's fund flows**

- 3.27 The proceeds from the foreign credit and the contributions by the CNA and the operators themselves will be channeled into a single account that each operator must open and use solely to manage program transactions. The CNA and BANOBRAS may review the account for purposes of monitoring and oversight of fund management.
- 3.28 The loan recoveries from the operators will be used for the program's same purposes and under similar terms and conditions.

- 3.29 The program will have a 30-month period to commit the funds, and a 36-month disbursement period. Funds not committed within this time period will be canceled.

## **G. Operating Regulations**

- 3.30 The program's implementation will be governed by a set of Operating Regulations covering the following topics: program objectives and components; executing agencies and functions; loan subjects and eligibility; terms and conditions of the financing; requirements to qualify for the loan funds; application procedure and approval of funds; earmarking of the funds; fundable activities; standards on the local contribution; guarantees; model credit commitment contracts or agreements; formalization of contracts; phases of the projects' implementation; performance indicators and commitments; disbursement voucher; program monitoring; evaluation of results; and terms of reference for the hiring of consultants. **A condition precedent to the first disbursement is that BANOBRAS has put the program's Operating Regulations into effect.**

## **H. Procurement**

- 3.31 The Bank's procedures will be followed in the procurement of all goods and the contracting of works and services. International competitive bidding will be mandatory for contracts over: (i) US\$5 million in the case of construction works; (ii) US\$350,000 in the case of related goods and services; and (iii) US\$200,000 for consulting services.
- 3.32 The CNA will select and engage the Consulting Firm in accordance with applicable local legislation under terms of reference agreed upon among the CNA, BANOBRAS and the Bank.

## **I. Disbursements and revolving fund**

- 3.33 The tentative disbursement schedule is shown in the following table:

**Table III-3. Tentative disbursement schedule (US\$)**

Source	Year 1	Year 2	Year 3	Total
IDB	2,000,000	4,000,000	4,000,000	10,000,000
CNA	1,220,000	2,440,000	2,440,000	6,100,000
Service providers	380,000	760,000	760,000	1,900,000
Percentage	20%	40%	40%	100%

- 3.34 A revolving fund of 5% is planned.

## **J. Recognition of costs**

- 3.35 The Bank may recognize up to US\$500,000 from the local counterpart for costs that the CNA has incurred since 1 September 2003, to contract the Consulting Firm and

stage the induction workshops, provided the procurement standards and procedures agreed upon with the Bank were observed.

**K. Auditing**

- 3.36 The external audit of the program will adhere to the Bank's contracting procedures, terms of reference and procedures stipulated in documents AF-100, 200, 300 and 400, and will cover the program and a sampling of service providers. The external audit will involve an annual report submitted to the Bank within 120 days following the close of each fiscal year. The terms of reference of the audit must have the Bank's approval and the auditors must be selected in accordance with IDB policy. The costs of the audit will be paid with the loan proceeds.

**L. Management of the program's finances and accounts**

- 3.37 BANOBRAS will manage the program's finances and accounts. To that end, it must: (i) maintain an effective administrative, financial and internal audit system; (ii) keep separate accounts for the proceeds from the Bank loan and records of local counterpart resources; pursuant to Article 7.01 of the General Conditions of the loan contract; (iii) keep detailed information for preparation of the consolidated financial reports, in keeping with Bank procedure; (iv) keep supporting information on the use of program funds in an accessible filing system; and (v) keep proper records of the disbursement requests.

**M. Program monitoring and evaluation**

- 3.38 Implementation of the program will be monitored closely by the Interinstitutional Coordination Committee, assisted by the Consulting Firm. BANOBRAS will submit semiannual progress reports combining the financial and technical elements of the programs and evaluating the following: (i) the service providers' induction into the program; (ii) the progress on preparation of the BPs; (iii) achievement of the performance indicators agreed upon in the BPs and the impact on the service providers' efficiency; (iv) the physical progress made on investment projects; (v) the progress on the component for gathering and disseminating best practices; and (vi) the problems encountered during implementation and the solutions adopted.
- 3.39 For its part, the Bank's project team will do: (i) a review at the end of the first year of execution and preferably after the BPs for at least three localities have been approved; and (ii) a review at the end of the second year of execution. These reviews will evaluate the supervision and control mechanisms, detect and solve implementation-related problems, and consider possible changes that, by mutual agreement of the CNA and BANOBRAS, could be introduced to help the program better achieve its objectives.

- 3.40 Additionally, BANOBRAS will do two independent evaluations, one midterm, when 50% of the loan proceeds have been committed, and the other at the 30-month mark. The main objectives of these two evaluations are: (i) to review compliance with the program's performance indicators, as described in the operation's logical framework; (ii) corroborate the progress made on the service providers' performance indicators as set forth in the respective BPs; (iii) review the functioning of the mechanisms for analysis and approval of loan proceeds; and (iv) check compliance with the program's Operating Regulations.

#### **N. Residential Public Utilities Policy**

- 3.41 The proposed program is consistent with the objectives of the Bank's Public Utilities Policy (OP-708) as it promotes the financial sustainability of the service providers, efficient administrative and operational management, and service access for the most disadvantaged. The program does not disregard the difficulties that the country is having as a result of the fact that regulatory functions are divided among so many different authorities and the fact that the distribution of sectoral functions and responsibilities is constitutionally mandated. While such issues lie well beyond the scope of the objectives of an operation of this nature, the program is promoting measures that will strengthen the principles of independent regulation and pave the way for their future development, such as the inclusion of performance indicators, the strengthening of the service providers' entrepreneurial role, transparent administrative management and effective participation by civil society. The program will also fund a review of the legal framework in the participating states and will propose regulatory measures that will, to the extent possible, facilitate the regulatory function.

#### **O. Environmental and social considerations**

- 3.42 The nature of the operation is such that no appreciable environmental impacts are anticipated as a result of the program-funded measures. Many of these will be regulatory, administrative or financial in nature or intended to disseminate the lessons learned. However, the appraisals (called *business plans*) done of each participating service provider will include a thorough evaluation of the social and environmental considerations of the service and, when possible and necessary, will propose measures to prevent, correct or mitigate existing problems.
- 3.43 The proposed program has no plans to finance expansions of water supply production systems or of sewer systems. The investments in civil works will mainly be to reduce losses and repair installations that are either so obsolete or in such poor condition that the service cannot function well. In exceptional cases, minor extensions of water supply systems will be financed so that they reach the disadvantaged sectors, using water recouped by curbing losses. In these cases, the necessary measures will be taken to ensure proper disposal of wastewater. The

improvement and rehabilitation measures will be planned with civil society's participation, to reflect community priorities and consensus.

**P. Poverty-targeting and social sector classification**

- 3.44 This operation qualifies as a social equity enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704). It does not qualify as a poverty-targeted investment (PTI).

#### **IV. BENEFITS AND RISKS**

- 4.1 The proposed program will benefit the participating service providers and the communities they serve (594,000 inhabitants). But similar institutions that learn the results of the strengthening measures and decide to adopt similar measures to improve the administrative management of their service, its operating efficiency and financial sustainability also stand to gain. The program's demonstration effect, moreover, is significant when one considers that there are close to 680 cities in the population size considered (10,000 to 250,000 inhabitants), accounting for 24% of the country's total population. The program will also help develop a mechanism by which to finance the water supply and sanitation sector that federal government authorities can replicate in future programs to promote effective improvement of the service.
- 4.2 The program-execution period is relatively short, leaving no room for delays in startup and operation. To expedite the activities associated with program startup and subsequent implementation, the CNA will contract the program Consulting Firm prior to the first disbursement. Incentives have also been included to induce the firm to discharge its functions on schedule. The participation of organized civil society in the discussion and formulation of the corrective measures could also slow down the decision-making process. When this issue was examined during the program's preparation, working methods were discussed that minimize the delaying effects and maximize the beneficial effects of this participation. Community acceptance is also considered essential before attempting to undertake potentially unpopular measures. Therefore, the execution period is considered adequate and will allow the viability of the proposed approach to be studied on a smaller scale before greater resources are committed in some future operation.
- 4.3 Full use of the program proceeds depends on whether the commitment that the service providers initially expressed actually materializes. It also depends on successful implementation of the measures recommended in the BPs and on the willingness of the service providers to move toward the phase involving investment in priority civil works. To minimize this risk, in addition to the contracting of the technical advisors mentioned above, provision has been made for the possibility of: (i) replacing a service provider in the group originally selected with one from the list of alternates; and (ii) making additional funds available to the best performing service providers to enable them to undertake other investments. Furthermore, the subsidy and the amortization periods will make the program attractive to service providers interested in improving their current condition.
- 4.4 The complex problems of the service providers require coordinated and sustained actions in a number of areas, some of them external to the operators themselves, such as those related to the political milieu. To minimize this risk, the selection of the pilot cities took account of the extent to which the authorities involved were

committed to the operation's objectives and proposed activities. With the changes in municipal government that will inevitably occur during the life of the program, the technical advisor permanently posted with each service provider and the proposed participatory approach are ways to monitor the changes, act swiftly to safeguard the program's objectives and thus ensure that the modernization and strengthening measures will continue.

## PILOT PROGRAM FOR INSTITUTIONAL DEVELOPMENT IN THE WATER AND SANITATION SECTOR (ME-0253)

### LOGICAL FRAMEWORK

Narrative Summary	Indicators	Means of Verification	Main Assumptions
<p><b>Goal:</b></p> <p>To assist the modernization and improvement of Mexico's water supply and sewer services.</p>	<p>Improvement in the coverage and quality of the water supply and sewer services.</p>	<p>National (censuses and the like), regional and local statistics</p> <p>Official CNA documents that are annual summaries of the situation in the sector.</p>	<p>The federal government, states, municipios and water and sewer services take active part in the sector's modernization programs.</p>
<p><b>Purpose:</b></p> <p>To promote the autonomy, efficiency, equitable access, citizen participation and financial sustainability of the service providers in small and mid-sized cities by conducting five pilot projects in comprehensive strengthening. The program seeks to: (i) demonstrate the real potential to improve service in the near term and with limited resources; (ii) build consensus and support for the needed measures within the community concerned; (iii) gain experience and disseminate the lessons learned that will be useful in similar communities; and (iv) lay the groundwork for a larger-scale investment and institutional development program.</p>	<p><b>1. Autonomy</b> The service provider is operating independently and on technical bases in putting together its budget.</p> <p>Positions for the service provider's technical staff are sufficiently advertised and filled through competition.</p> <p>The agreed upon procedures for appointing and removing the director of the service provider and members of its executive board are followed.</p> <p><b>2. Operating efficiency</b> The technical and business efficiency (as defined under the indicators for the Components) of the service providers improves considerably.</p> <p><b>3. Equitable access</b> The five service providers took measures to provide either conventional or temporary water services to supply the population not connected to the system.</p> <p><b>4. Citizen participation</b> The community and the users participated in the discussion of the service problems and in the design of the solutions that affect them.</p> <p>The service provider's performance indicators and financial statements were made public at the close of each budgetary period, as was the budget for the following year.</p> <p>Users made use of the mechanisms that the service provider put into place to get them to participate (e. g. semiannual assemblies) and to receive and process complaints.</p>	<p>Comparison with the original baseline established in the corresponding service provider's <i>business plan</i>.</p> <p>Records, agreements or documents that show the degree of participation and the adoption of measures.</p> <p>Statistics and data obtained semiannually while the program is underway.</p> <p>Final evaluation of the results obtained.</p>	<p>Federal and state authorities support the program and the adoption of the recommended measures.</p> <p>Participating service providers promptly develop and implement the measures recommended in the <i>business plans</i>.</p>

Narrative Summary	Indicators	Means of Verification	Main Assumptions
	<p>5. <b>Financial sustainability</b> The service providers' net incremental operating cash flow increased in real terms, qualifying them for credit to make investments in priority civil works.</p> <p>6. <b>Demonstration effect and replicability</b> The lessons learned were passed along to similar entities and the possibility of a larger-scale program in the future has been enhanced.</p> <p>The financial mechanism developed (a combination of subsidy and credit) can be applied to service providers having similar characteristics.</p>		
<p><b>Components (outputs):</b></p> <ol style="list-style-type: none"> <li>Administrative, operational and financial strengthening of service providers.</li> <li>Compilation and dissemination of outputs.</li> </ol>	<p>The quantitative indicators to monitor progress by area will be established in the <i>business plan</i> and will be based on the detailed appraisals and the forecasts of the improvement that each service provider will make. The main indicator for each area is indicated below by an asterisk (*):</p> <ol style="list-style-type: none"> <li><b>Administrative performance indicators:</b> *Productivity (employees per population served) Productivity (employees/1000 connections) Personnel costs/operating costs Outsourced costs/total operating costs</li> <li><b>Operating performance indicators:</b> *Technical efficiency (m3 billed /m3 produced) Coverage (population served/total population) Production (l/capita/day) Consumption (l/capita/day) Potability (national standards) Macro metering (m3 metered/m3 produced) Micro metering (total meters connected/total connections) Losses per connection (m3 lost/connection/day) Service continuity (hours/day) Complaints (complaints/1000 connections/year) Treatment of effluents (m3 treated/m3 generated)</li> <li><b>Business performance indicators:</b> *Business efficiency (m3 paid/m3 billed) Average tariff (\$/m3 billed) Overall efficiency (m3 paid/m3 produced) Collection efficiency (equivalent in days = accounts outstanding at year's end/annual operating income x 365)</li> </ol>	<p>The service providers' data and statistics.</p> <p>Results and recommendations in the <i>business plan</i> prepared for each participating service provider.</p> <p>Quarterly reports of the <i>technical advisors</i> assisting the service providers while activities are underway.</p> <p><i>Permanent technical advisor's</i> semiannual reports.</p> <p>Final evaluation of the results obtained in each area of activity.</p> <p>Reports of the <i>permanent technical advisor</i> on the results of the events held to share the lessons learned.</p>	<p>The community, its representatives and the users (the participants) support the service provider's improvement measures.</p> <p>The program coordination committee reviews and approves each service provider's business plan, including the performance indicators that the recommended measures are to achieve.</p> <p>Service providers of similar kinds elsewhere in the country are interested in learning about and applying the results obtained.</p>

Narrative Summary	Indicators	Means of Verification	Main Assumptions
	<p>4. <b>Financial performance indicators:</b>            *Net incremental operating flow (real terms)            Operating costs (\$/m3 produced)            Operating ratio (annual operating costs/annual operating income)            Coverage of debt service (internally generated resources/total debt service)            Investments (% annual operating income)            Return rate (annual operating profits/fixed assets)            Liquidity (current assets/current liabilities)</p> <p>5. <b>Indicators of the dissemination of lessons learned:</b>            *Number of service providers that participate in the workshops and seminars.            Effectiveness of the events (workshops and seminars)</p>		
<p><b>Activities:</b></p> <ol style="list-style-type: none"> <li>1. Preparation of the service provider's business plan               <ol style="list-style-type: none"> <li>a. Analysis of the legal framework</li> <li>b. Evaluation of the organizational structure</li> <li>c. Evaluation of the technical and operational area</li> <li>d. Evaluation of the informal supply system</li> <li>e. Examination of the business and financial situation</li> <li>f. Determination of the priority measures to improve efficiency and autonomy</li> </ol> </li> <li>2. Adoption of the improvements and modernization measures               <ol style="list-style-type: none"> <li>a. Institutional and regulatory measures</li> <li>b. Administrative and financial measures</li> <li>c. Operational measures</li> <li>d. Permanent technical monitoring</li> <li>e. Training programs for executive, administrative and operational personnel</li> </ol> </li> <li>3. Implementation of priority civil works               <ol style="list-style-type: none"> <li>a. Improvements to existing installations</li> <li>b. Rehabilitation of obsolete equipment and installations</li> <li>c. Expansions of the distribution systems using waters losses recouped</li> <li>d. Low-cost, temporary supply systems for the population not served</li> </ol> </li> <li>4. Compilation of best practices and dissemination of lessons learned               <ol style="list-style-type: none"> <li>a. Analysis of the achievement of the program's area-specific and global indicators</li> <li>b. Evaluation of results by area and by service provider</li> <li>c. Staging of workshops and discussion panels and dissemination of the results achieved</li> </ol> </li> </ol>			

**PILOT PROGRAM FOR INSTITUTIONAL DEVELOPMENT  
IN THE WATER AND SANITATION SECTOR (ME-0253)  
PROCUREMENT PLAN**

Principal Procurements	Source of Financing		Procurement Method	Pre-qualification	Specific Procurement Notice	Status
	IDB (%)	Local (%)				
1. Consulting services						
Program Consulting Firm (US\$600,000)	0	100	LCB	No	2004	
Technical advisors at 5 of the 7 service providers (US\$1.72 million)	0	100	LCB	No	2004	
Auditing (US\$100,000)	100	0	LB	No	2006	
Midterm and final evaluations (US\$200,000)	100	0	LCB	Yes	2005/2006	
Strengthening of the participating service providers (US\$2 million)	50	50	LCB/ICB depending on the amounts involved	No/Yes depending on the amounts involved	2004/2005	
2. Equipment						
Equipment to improve the services (US\$3 million)	50	50	LCB/ICB depending on the amounts involved	No/Yes depending on the amounts involved	2004/2005	
3. Works						
Priority improvement and rehabilitation works and minor expansions of the supply systems (US\$9.7 million)	70	30	LCB/ICB depending on the amounts involved	No/Yes depending on the amounts involved	2006	