

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

## **MEXICO**

# **PROGRAM FOR THE SUSTAINABILITY OF WATER SUPPLY AND SANITATION SERVICES IN RURAL COMMUNITIES IV (PROSSAPYS IV)**

**(ME-L1147)**

## **LOAN PROPOSAL**

This document was prepared by the project team consisting of María Eugenia de la Peña (WSA/CME), Project Team Leader; Germán Sturzenegger (INE/WSA), Alternate Project Team Leader; María Julia Bocco (INE/WSA); Alejandra Perroni (INE/WSA); Silvia Ortiz (INE/WSA); Javier García (INE/WSA); Jorge López (INE/WSA); Viridiana Zamora (WSA/CME); Gloria Coronel (FMP/CME); Victor Escala (FMP/CME); Cynthia Nuques (INE/WSA); Carlos Martínez (CID/CME); and Juan Carlos Perez-Segnini (LEG/SGO).

Under the Access to Information Policy, this document is subject to Public Disclosure.

## CONTENTS

### PROJECT SUMMARY

I.	DESCRIPTION AND RESULTS MONITORING .....	1
A.	Background and rationale .....	1
B.	Objective, components, and cost .....	5
C.	Expected outcomes .....	7
II.	FINANCING STRUCTURE AND RISKS .....	8
A.	Financing structure.....	8
B.	Environmental and social safeguards .....	9
C.	Fiduciary and other risks.....	9
D.	Special considerations, viability, and other risks.....	10
III.	IMPLEMENTATION AND MANAGEMENT PLAN .....	12
A.	Implementation arrangements.....	12
B.	Monitoring and evaluation.....	15

ANNEXES	
Annex I	Development Effectiveness Matrix (DEM) — Summary
Annex II	Results matrix
Annex III	Fiduciary agreements and requirements

ELECTRONIC LINKS	
<b>REQUIRED</b>	
1.	Annual work plan <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215721">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215721</a>
2.	Monitoring and evaluation arrangements <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215722">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215722</a>
3.	Environmental and Social Management Report (ESMR) <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215720">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215720</a>
4.	Procurement Plan <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215719">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215719</a>
<b>OPTIONAL</b>	
1.	Technical analysis <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215718">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215718</a>
2.	Socioeconomic analysis <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215717">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215717</a>
3.	Community support and participation <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215716">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215716</a>
4.	Institutional and financial analysis <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215723">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215723</a>
5.	Operating and Procedural Manual (Preliminary Draft) <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215715">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215715</a>
6.	Safeguard policy filter report and safeguard screening form <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215756">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38215756</a>

## ABBREVIATIONS

BANSEFI	Banco del Ahorro Nacional y Servicios Financieros [National Savings and Financial Services Bank]
CEAS	Comisión Estatal de Agua y Saneamiento [State Water and Sanitation Commission]
CONAGUA	Comisión Nacional del Agua [National Water Commission]
EIRR	Economic internal rate of return
ESMP	Environmental and Social Management Plan
ICAS	Institutional Capacity Assessment System
LIBOR	London Interbank Offered Rate
OPM	Operating and Procedural Manual
PND	Plan Nacional de Desarrollo [National Development Plan]
PROSSAPyS	Programa para la Sostenibilidad de los Servicios de Agua Potable y Saneamiento en el Sector Rural [Program for the Sustainability of Water Supply and Sanitation Services in Rural Communities]
SEDESOL	Secretaría de Desarrollo Social [Social Development Department]

## PROJECT SUMMARY

## MEXICO

**PROGRAM FOR THE SUSTAINABILITY OF WATER SUPPLY AND  
SANITATION SERVICES IN RURAL COMMUNITIES IV  
(PROSSAPyS IV)  
(ME-L1147)**

Financial Terms and Conditions			
<b>Borrower:</b> United Mexican States		<b>Flexible Financing Facility*</b>	
		Amortization period:	Bullet payment on 15 June 2021
		Original WAL:	Maximum of 7.5 years**
		Disbursement period:	4 years
<b>Executing agency:</b> Comisión Nacional del Agua [National Water Commission] (CONAGUA)		Grace period:	Maximum of 7.5 years**
		Interest rate:	LIBOR-based
<b>Source</b>	<b>Amount</b>	Inspection and supervision fee:	***
IDB (Ordinary Capital)	US\$450,000,000	Credit fee:	***
Local	US\$112,500,000	Currency:	U.S. dollars from the Bank's Ordinary Capital
Total	US\$562,500,000		
Project at a Glance			
<b>Project objective/description:</b> The program will continue supporting the Government of Mexico's efforts to expand the coverage of water and sanitation services in communities with fewer than 2,500 inhabitants, in which community management of systems will be promoted, serving primarily highly and very highly marginalized communities, giving priority to those located in municipios identified in the National Crusade against Hunger. The program will, on an exceptional basis, also consider communities of 2,500 to less than 15,000 inhabitants, where it will promote the design and implementation of service management arrangements aligned with the characteristics of the communities (paragraph 1.13).			
<b>Expected results:</b> The program is expected to benefit approximately 600,000 people by providing them access to drinking water, while giving 390,000 people access to sewerage and basic sanitation services (paragraph 1.18).			
<b>Special contractual conditions precedent to the first disbursement:</b> The borrower will present, to the Bank's satisfaction, evidence that (i) the mandate agreement between the borrower, CONAGUA, and BANSEFI for program execution has been signed and entered into force (paragraph 2.1); and (ii) the program's Operating and Procedural Manual has been updated to include an environmental and social management plan (ESMP) (paragraph 2.1).			
<b>Exceptions to Bank policies:</b> None.			
<b>Project qualifies as:</b>		SEQ [ X ]	PTI [ X ]
<b>Project consistent with country strategy:</b>		Yes [ X ]	No [ ]
		Sector [ X ]	Geographic [ ]
		Headcount [ ]	

- (\*) Under the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, and currency and interest rate conversions, subject in all cases to the final amortization date and the original weighted average life (WAL). When considering such requests, the Bank will take market conditions into account, along with operational and risk management considerations.
- (\*\*) The final original weighted average life will be calculated based on the date on which the loan contract is signed.
- (\*\*\*) The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with applicable Bank policies.

## I. DESCRIPTION AND RESULTS MONITORING

### A. Background and rationale

- 1.1 **Current status of water and sanitation services.** According to the latest Population Census in 2010, Mexico has 112.3 million inhabitants, of which 76.8% (86.3 million) live in urban areas and 23.2% (26 million) in rural areas— i.e., in communities with less than 2,500 inhabitants. As of December 2012, figures for coverage of water and sanitation services in Mexico were 92% and 90.5%, respectively. In communities with less than 2,500 inhabitants, of which there are an estimated 188,000, the coverage rates for water and sanitation services were 80.3% and 70.1%, respectively, thus leaving some 5.2 million people with no access to water services and approximately 7.8 million without access to sanitation services.<sup>1</sup> In communities with populations of 2,500 to 15,000, of which there are some 3,000 throughout the country, coverage rates for water and sanitation services were 91% and 83%, respectively.
- 1.2 **Management of services in rural communities and in communities with 2,500 to 15,000 inhabitants.** In rural communities, service is provided by community organizations, such as water committees. These organizations are responsible for the administration, operation, and maintenance of water services in their respective communities and are in most cases comprised of a chairperson, a treasurer, and a secretary. These small community operators confront enormous challenges, primarily with regard to finances. The rates they charge, typically a set monthly fee ranging from 3 Mexican pesos to 50 Mexican pesos, are usually insufficient to ensure that operating revenues will exceed administration, operation, and maintenance costs. According to Comisión Nacional del Agua [National Water Commission] (CONAGUA) data, of the 1,933 water systems constructed between 2005 and 2007, 65% (as of March 2010) were operating according to design specifications (quantity and continuity), 17% were operating below design specifications, and 18% were inoperative (had closed). In terms of financing, only 38% of these systems had revenues greater than their administration, operating, and maintenance costs.<sup>2</sup> In communities with populations of 2,500 to 15,000, water and sanitation systems are managed, in most cases, by municipal operators; while these are more professionalized, they too face problems in recovering their costs, which are covered by resources from municipal budgets.
- 1.3 **Post-construction technical assistance.** In all of the states, support for rural operators is provided by the Rural Service Areas (AAMR) or their equivalents, within the State Water Commissions (CEAs), created to provide technical assistance to rural providers in operating their water systems. According to supervisory visits conducted during the earlier phases of the program, there are wide differences in the Rural Service Areas' capacity to monitor the systems.

---

<sup>1</sup> CONAGUA, "Situación del Subsector Agua Potable, Alcantarillado y Saneamiento" [Status of the Water, Sewerage, and Sanitation Subsector], September 2013 edition.

<sup>2</sup> CONAGUA, Informe de Evaluación Final Fase II [Final Evaluation Report, Phase II], 2010.

Though all have a minimum number of staff, they lack the material inputs needed to carry out the work in a systematic fashion and all are in need of more and better equipment.

- 1.4 **Status of services in the area of intervention.** The program will give priority to the 400 municipios included in the National Crusade against Hunger, an initiative of the Government of Mexico. These 400 municipios include approximately 5,000 highly and very highly marginalized communities of less than 2,500 inhabitants, in which there is either no water and sanitation services or the coverage rate is less than 20%.<sup>3</sup> In addition, there are 39 communities with populations of 2,500 to 15,000 that are highly or very highly marginalized where water and sanitation coverage is below 20%.<sup>4</sup>
- 1.5 **Effectiveness of the interventions.** Coverage of water and sanitation services influences the health of the local population. Increased coverage of water and sanitation services in Mexico between 1990 and 2010, which rose from 51.2% to 77.2% for drinking water and from 18.1% to 68.9% for sanitation services, was a factor in reducing deaths from diarrheal diseases among children under 5, which declined from 122.7 deaths per 1,000 children in 1990 to 9.3 deaths per 1,000 children in 2010.<sup>5</sup> In addition, the use of chlorine to purify water had a further positive effect on health: in 2009, 76.18% of the population was free of health problems caused by poor water quality.<sup>6</sup>
- 1.6 **Institutional framework for the water and sanitation sector.** Mexico's water and sanitation sector involves a large number of federal, state, and local institutions. At the federal level, these include the National Water Commission (CONAGUA), a deconcentrated entity of the Environment and Natural Resources Department (SEMARNAT), charged with administering the country's water resources and running programs to construct water and sanitation infrastructure. Other entities involved at the federal level include: (i) the Social Development Department (SEDESOL), which develops programs to support the provision of basic social infrastructure (electricity, roads, water, and sanitation) in highly marginalized areas; (ii) the Comisión Nacional para el Desarrollo de los Pueblos Indígenas [National Commission for the Development of Indigenous Peoples] (CDI), which promotes the implementation of social infrastructure, including water and sanitation, in indigenous communities of 50 to 10,000 inhabitants; and (iii) the Banco Nacional de Obras y Servicios Públicos [National Public Works and Services Bank] (BANOBRA) and other national financial entities, which make loans and transfer

---

<sup>3</sup> SEDESOL, "Sistema Nacional para la Cruzada contra el Hambre" [National System for the Crusade against Hunger]. The average drinking water coverage in the 1,816,931 communities under the initiative is 2.66%. In 182,252 communities of 2,500 to less than 15,000 inhabitants that were examined, average drinking water coverage was 8.06%.

<sup>4</sup> SEDESOL, "Sistema Nacional para la Cruzada contra el hambre y la Pobreza Extrema" [National System for the Crusade against Hunger and Extreme Poverty], January 2013.

<sup>5</sup> CONAGUA, "Estadísticas del Agua en México" [Water Statistics in Mexico], 2011 and 2012 editions.

<sup>6</sup> Idem.

domestic and external resources to the states, municipios, and operators that have investment needs in the sector. The municipios or operating entities are responsible for providing water and sanitation services, as well as for infrastructure administration, operation, and maintenance (paragraph 1.2). In the case of rural systems, the services are generally provided by water and sanitation committees formed by members of the community. Resources for the various programs are channeled to the states through the State Water and Sanitation Commissions (CEASs), which, together with the municipios or water operators, set priorities for works to be carried out. In general, CEASs focus on planning and technical assistance and on providing direct support to the smallest municipios and to rural areas. CONAGUA also operates at the state level, through 13 watershed bureaus and 20 local offices.

- 1.7 **Program for the Sustainability of Water Supply and Sanitation Services in Rural Communities (PROSSAPyS).** Since 1998, the Government of Mexico, through PROSSAPyS, assisted in its three stages by the Bank (loans 1161/OC-ME, 1645/OC-ME, and 2512/OC-ME), has worked to increase coverage rates for water and sanitation services in rural areas,<sup>7</sup> through loan operations totaling more than US\$1.4 billion (including local counterpart contributions). The program, in addition to expanding coverage, has created and strengthened community organizations to assist in constructing works and overseeing operation and maintenance of the completed infrastructure.
- 1.8 **Results obtained.** The main results achieved during execution of the program in its various phases have been: (i) strengthening of the executing agencies: (a) establishing rural service areas within the CEASs, with 30 such areas operational in the first year of the program; and (b) promoting the establishment of such areas at the municipal level, resulting in the participation of more than 1,000 municipios in planning and programming the construction of works, through training and, to a lesser degree, through the contribution of financial resources; (ii) community participation: (a) from 1999 to 2008, more than 10,000 community organizations were formed to self-manage services; moreover, 85% of the beneficiary population was provided health and environmental education; (b) as a result of adopting a gender approach, at least 30% of committee members are women; (c) community support strategies in indigenous communities have been adapting to local community uses and customs; (iii) infrastructure constructed: during the first two phases, work was done in more than 8,000 communities, benefiting 3.2 million people through the provision of water and in more than 2,000 communities, establishing sanitation services for nearly 1.4 million users.<sup>8</sup> During the third stage, which is in its final phase of execution, a target of providing drinking water to a total of 540,000 people and sanitation services to 390,000

---

<sup>7</sup> During the second phase of the program, 65% of the beneficiary population lived in highly or very highly marginalized areas.

<sup>8</sup> José Javier Jiménez Sánchez, “Agua y zonas rurales, México, PROSSAPyS, etapas I y II” [Water and Rural Areas, Mexico, PROSSAPyS, Stages I and II], IDB, 2010.



people was established. As of December 2012, 430,000 people had gained access to water services, while 205,000 people had been provided sanitation services.<sup>9</sup>

- 1.9 **Lessons learned.** In the course of these three stages of the program, it was determined that the sustainability of water and sanitation services in rural areas depends, to a great extent, on: (i) having a community support strategy that encourages community ownership of the projects and strengthens the community organizations responsible for administering, operating, and maintaining the systems; and (ii) developing post-construction monitoring arrangements to support the community organizations in operating the systems. There is evidence of the importance of providing the community operators with post-construction support for sustainability. One quantitative study conducted in three departments of Colombia concludes that providers that had received some type of support from external entities had higher performance indicators. Explanations for this success include the degree of institutionalization of the model, the presence of qualified personnel, the frequency of the support, and the inter-agency nature of the support models.<sup>10</sup>
- 1.10 **Technical cooperation.** In order to strengthen program execution, and based on lessons learned, a technical cooperation operation (ME-T1244) will be processed to: (i) develop a georeferenced system for monitoring works during the construction and post-construction stages, in order to promote the sustainability of the infrastructure investments; (ii) formulate a technical support model for the administration, operation, and maintenance of the systems; (iii) develop a model to provide the water committees with access to the banking system; (iv) establish a system for scaling up the water reuse pilot projects for agricultural applications; (v) conduct a socioeconomic study to update the cutoff value of the program; and (vi) implement dissemination and communication activities for the program.
- 1.11 **Priorities and strategy of the Government of Mexico.** The National Development Plan (PND) 2013-2018<sup>11</sup> includes a provision to guarantee the exercise of social rights and close social inequality gaps, while contributing to sustainable development through: assuring a sufficient supply of water suitable for human consumption and food security; increasing the coverage and improving the quality of water and sanitation services; and strengthening the development and the technical and financial capacity of operating entities, as well as enhancing the sector's legal framework. The National Water Program (PNH) 2013-2018<sup>12</sup> is currently in preparation and will set forth the government's lines of action regarding the provision of water and sanitation services. The present program will align its

---

<sup>9</sup> Data taken from the Progress Monitoring Report for the first period of 2013. An average figure of 5 people per household was used.

<sup>10</sup> Smits, et al. "Gobernanza y sostenibilidad de los sistemas de agua potable y saneamiento rurales en Colombia" [Governance and Sustainability of Rural Drinking Water and Sanitation Systems in Colombia], IRC-IDB-CINARA, 2012.

<sup>11</sup> [www.pnd.gob.mx](http://www.pnd.gob.mx).

<sup>12</sup> [www.pnh.gob.mx](http://www.pnh.gob.mx).

efforts with those of the National Crusade against Hunger, giving priority to communities located in the 400 municipios that are part of that national initiative. This alignment of efforts will contribute directly to the first objective of the Crusade: “Zero hunger among the population living in extreme poverty and lacking access to food,” through the specific objective of improving access to basic services, including water and sanitation. Similarly, there will be an indirect contribution to the objectives of “increasing the production and incomes of the rural population” and “promoting community participation.”<sup>13</sup>

- 1.12 **Bank strategy.** The program is consistent with the Bank’s country strategy with Mexico (2010-2012) (document GN-2595-1), which includes, as one of its objectives, expanding the coverage of drinking water and sanitation services in rural communities. The program is also in line with the priority objective of “supporting infrastructure for competitiveness and social welfare,” as set forth in the Ninth General Increase in the Resources of the IDB (GCI-9) (document AB-2764). The program further contributes to the targets on “poverty reduction and promotion of social equity” and to “climate change, sustainable energy, and environmental sustainability initiatives,” since it involves carrying out works and providing institutional strengthening aimed at the preservation and appropriate management of water as a natural resource. The program and the national objectives planned for the sector are consistent with the objectives and basic conditions of the Bank’s Public Utilities Policy (OP-708), in that it emphasizes the financial self-sustainability of the projects. In structuring the program, a gradual approach was used, as specified in the Operating Guidelines for the Application of the Public Utilities Policy (OP-708) for the water and sanitation sector.

**B. Objective, components, and cost**

- 1.13 **Objective.** The program will continue supporting the Government of Mexico’s efforts to expand the coverage of water and sanitation services in communities with fewer than 2,500 inhabitants, in which community management of systems will be promoted, serving primarily highly and very highly marginalized localities, giving priority to those located in municipios identified in the National Crusade against Hunger. The program will, on an exceptional basis, also consider communities of 2,500 to less than 15,000 inhabitants, where it will promote the design and implementation of service management arrangements aligned with the characteristics of the communities.
- 1.14 **Component 1: Infrastructure (US\$512,490,580).** This component will finance: (i) construction of water supply, sewerage, and sanitation systems; (ii) works supervision activities; (iii) feasibility and design studies needed to justify the proposed works; and (iv) infrastructure for pilot projects for reuse of water for agricultural purposes. The studies will have been broadly discussed and accepted by

---

<sup>13</sup> SEDESOL, “Mapa de la Cruzada: Sin Hambre, Cruzada Nacional” [Crusade Map: No Hunger, National Crusade].

the relevant community,<sup>14</sup> taking account of technologies compatible with the community's socioeconomic characteristics, interests, and capacities. For communities of 2,500 to less than 15,000 inhabitants, this component will finance the development of the engineering studies required to implement sustainable management arrangements consistent with the community's social, economic, cultural, and institutional characteristics.

- 1.15 **Component 2: Community support and participation (US\$12,078,320).** The objectives of this component are to: (i) create and/or strengthen community organizations to administer, operate, and maintain the water and sanitation systems that are constructed; and (ii) provide health and environmental education training in the program's beneficiary communities. This component, which will be executed in close coordination with the infrastructure component, may finance: (i) the preparation of participatory diagnostic assessments in general and, for localities with 2,500 to less than 15,000 inhabitants, the development of diagnostic, legal, financial, and institutional design studies; (ii) actions to promote active participation by community members; (iii) the creation and/or strengthening of community organizations to take responsibility for the administration and sustainable operation of the systems; (iv) training in operation, maintenance, and administrative and financial management, including possible advisory services to establish replacement and emergency funds and to help community organizations obtain legal status; (v) health and environmental education programs for the community; and (vi) monitoring the maintenance of the works and service delivery after the program-financed water and sanitation systems have been delivered. Community support and participation actions will be tailored to the needs, capacity, and specific characteristics of the beneficiary communities, thus helping to ensure the sustainability of the systems that have been constructed.
- 1.16 **Component 3: Institutional development and strengthening of executing agencies (US\$571,100).** This component seeks to continue and deepen activities to strengthen the agencies that execute program activities (municipal operators and CEASs) in the areas of sector planning, program promotion and development, and service for rural communities. The resources allocated to this component will finance consulting services, studies, training and dissemination activities, and materials and equipment for the following: (i) sector diagnostic assessments and investment plans; (ii) staff training in administrative, financial, technical, social, and environmental areas; (iii) guides, manuals, and instructional materials; (iv) regional and national workshops and seminars to share experiences and disseminate lessons learned and best practices; and (v) implementation of georeferenced systems to monitor the works and provide post-construction follow-up. Additionally, in order to help streamline execution of the planned investments, these resources may be used to finance studies to determine the viability of a

---

<sup>14</sup> Community acceptance is determined through an official social feasibility opinion prepared by a social facilitator, confirming the community's demand and the need for basic services.

financial mechanism to facilitate the continuity and timeliness of counterpart funding to the federal financing.

<b>Table I. Program Costs and Sources of Financing (US\$ thousands)</b>				
<b>CATEGORY / COMPONENT</b>	<b>IDB</b>	<b>LOCAL CONTRIBUTION</b>	<b>TOTAL</b>	<b>%</b>
<b>I. Program management</b>	<b>27,988</b>	<b>6,472</b>	<b>34,460</b>	<b>6%</b>
<b>II. Components</b>	<b>420,112</b>	<b>105,028</b>	<b>525,140</b>	<b>93%</b>
1. Water and sanitation infrastructure	409,992	102,498	512,490	91%
2. Community support and participation	9,663	2,416	12,079	2%
3. Institutional development and strengthening of executing agencies	457	114	571	0.10%
<b>III. Audits, monitoring, and evaluation</b>	<b>600.00</b>	<b>300.00</b>	<b>900</b>	<b>0.16%</b>
<b>IV. Contingencies</b>	<b>1,300.00</b>	<b>700.00</b>	<b>2,000.00</b>	<b>0.36%</b>
<b>Total costs</b>	<b>450,000.00</b>	<b>112,500.00</b>	<b>562,500.00</b>	<b>100%</b>

1.17 **Program costs and financing.** The total cost of the program is estimated at US\$562.5 million, with US\$450 million drawn from the Bank's Ordinary Capital, with a bullet payment on 15 June 2021, a grace period of a maximum of 7.5 years, and a disbursement period of 4 years, and US\$112.5 million in local contributions. The borrower will transfer the financing resources to CONAGUA, which in turn will transfer them to the participating states and municipios. Table I shows the breakdown of estimated costs, including those related to monitoring and evaluation, along with an indication of the source of the financing required for each program component.

### C. Expected outcomes

1.18 **Vertical approach and expected outcomes.** The program will finance the construction of water and sanitation infrastructure and activities involving institutional development of operators, in communities of up to 15,000 inhabitants, to increase access to, and improve the quality of, these services. In the case of drinking water, the benefits of the associated activities and outputs will help save resources (due to savings in transporting water and purchasing containers) and will increase the consumption of drinking water for those previously without access, as well as for those who currently have some form of service.<sup>15</sup> In the case of sanitation services, the benefits involve improving sanitation conditions, with a consequent positive effect on health. Given that these outcomes are unachievable if the water systems are not functioning, or are functioning below their design specification levels, the program envisages actions to enhance community support and institutional strengthening, to help ensure the sustainability of the infrastructure that has been constructed. Under this approach, the program is expected to benefit

<sup>15</sup> See also: Water Expansions in Shantytowns: Health and Savings, Galiani, et al., March 2007. Happiness on Tap: Piped Water Adoption in Urban Morocco, Duflo, et al., 2011.

600,000 people by providing them access to drinking water, while offering sewerage and basic sanitation services to some 390,000 people. The program's institutional strengthening activities will provide benefits to 31 states. The most important program indicators, and the expected outcomes, are shown, below:

**Table II. Key Indicators**

INDICATOR	TARGET
Population gaining access to drinking water	600,000
Population gaining access to sewerage	356,000
Drinking water systems constructed	1,500
Sewerage systems constructed	550
Rural sanitation facilities constructed	4,488
Number of community organizations created to administer and/or operate and maintain the systems	2,000
Number of community organizations whose operating revenues exceed the administration, operation, and maintenance costs	75%

## II. FINANCING STRUCTURE AND RISKS

### A. Financing structure

- 2.1 This is structured as a multiple works program, for which a representative sample from the universe of interventions has been selected. The program will be executed according to the Operating and Procedural Manual (OPM), which establishes, among other matters, the eligibility and selection criteria for projects, as well as the program cycle. **As special conditions precedent to the first disbursement of loan proceeds, the borrower will present, to the Bank's satisfaction, evidence that: (i) the mandate agreement between the borrower, CONAGUA, and BANSEFI for program execution has been signed and entered into force; and (ii) the program's Operating and Procedural Manual (OPM), to include an environmental and social management plan (ESMP), has been updated.**

- 2.2 **Disbursement schedule.** The tentative disbursement schedule is shown below:

**Table III. Tentative Disbursement Timetable (US\$ millions)**

Source	Year 1	Year 2	Year 3	Year 4
IDB	115	115	115	105
Local	28	28	28.25	28.25
Percentage	25.4%	25.4%	25.5%	23.7%

- 2.3 **Review of disbursements.** Given the Bank's experience with CONAGUA and the level of development of its fiduciary systems, disbursements will be reviewed on an ex post basis.
- 2.4 **Retroactive financing and recognition of expenditures.** The Bank may retroactively finance eligible expenditures for up to US\$90 million of the total

amount of the proposed loan. Such expenditures will be financed provided that they are in compliance with requirements substantially similar to those established in the loan contract. Furthermore, eligible expenditures made by CONAGUA prior to the date on which the loan is approved will be recognized for up to US\$22.5 million of the estimated local contribution. These expenditures are to be carried out during the 18 months preceding the date on which the loan is approved, but may in no case include expenditures incurred prior to 30 September 2013, the approval date of the Project Profile.

**B. Environmental and social safeguards**

- 2.5 The program is expected to have a net positive environmental and social impact in the project's areas of influence, since it will contribute to expanding the coverage, and improving the quality, of water and sanitation services. As the projects involved are small in scale, their construction and operation will cause only minor, localized impacts mainly involving: construction noise, dust and odors, debris, interference with traffic, and risk of accidents, for all of which there are environmental impact control measures.
- 2.6 As part of program preparation, and pursuant to the Bank's Environment and Safeguards Compliance Policy (OP-703), an environmental and social analysis of the program was carried out, and an ESMP is currently in preparation. Measures to mitigate the direct environmental impacts caused by the projects to be financed by the program will be incorporated into the project budgets and in the bidding documents and conditions for the works. These will be the direct responsibility of the contractor, with supervision by the contracting entity, and may be monitored by the Bank. Indirect environmental impacts will be mitigated by implementing the environmental and social strategy outlined in the ESMP, which will specify the measures to be adopted and the parties responsible for overseeing the process. Pursuant to the guidelines in OP-703, this was classified as a category "B" operation, since it is expected to cause only localized and short-term negative environmental and social impacts for which effective mitigation measures are currently available. Given the types of works to be financed, no involuntary resettlement is expected. Nevertheless, the ESMP will include procedures related to this eventuality, consistent with policy OP-710 on involuntary resettlement.

**C. Fiduciary and other risks**

- 2.7 **Fiduciary risks.** Based on execution of the three previous operations and the satisfactory level of development of CONAGUA's financing systems, the risk level associated with the financial execution of the program is considered to be low. The present operation will therefore continue to use the simplified mechanism for providing the IDB with an accounting of expenditures, which will be detailed in the execution agreements between CONAGUA and each state on an annual basis. The Institutional Capacity Assessment System (ICAS) found the executing agency to have "sufficient development" and, therefore, a low risk associated with program

execution. An ex post review of procurements is recommended, except where otherwise indicated in the Procurement Plan for specific processes.

- 2.8 **Other risks.** Risks include: (i) the sustainability of the investments carried out, due to the lack of professionalism of the community organizations (water committees, etc.) responsible for providing service and the proposed actions' feasibility and adaptability to the environments of the beneficiary communities. To address this, training in administration, operation, and maintenance will be conducted, and formal technical support mechanisms will be developed to assist the organizations, along with efforts to adapt the proposed actions to the environments of the beneficiary communities. At the same time, support will be provided to the executing agencies through institutional strengthening activities in the area of alternative technologies and sharing of experiences with other national and regional executing agencies; and (ii) lack of capacity for monitoring the investments, for which purpose a system will be developed to monitor the construction and post-construction stages, to be used by both the CEASs and CONAGUA.

**D. Special considerations, viability, and other risks**

- 2.9 **Technical viability.** The water and sanitation works to be included in the program will be defined on the basis of the feasibility studies and executive designs approved by CONAGUA, making possible a process for bidding on the works. All of the studies and designs will be carried out according to current national standards and generally accepted international engineering principles. The solution ultimately adopted will reflect the lowest-cost, technically viable alternative, and will be agreed upon by the community. The IDB team reviewed a sample of 60 designs for water systems, sewerage, and individual sanitation systems (see [optional link 1](#)) located in 18 states, at sites with between 35 and 3,700 inhabitants. The technical feasibility of the solutions is amply justified in the case of the majority of the designs; in some cases, additional information and/or analysis is needed on specific issues. The program's Operating and Procedural Manual (OPM) will set forth the procedures to be used by CONAGUA to address these factors. The IDB team agreed with CONAGUA on making certain adjustments to the content of the terms of reference for developing the designs, with the aim of facilitating the presentation and evaluation of documents resulting from the studies to be conducted, with an emphasis to be placed on issues of water quality.
- 2.10 **Institutional viability.** The institutional and fiduciary capacity of CONAGUA was assessed using the Institutional Capacity Assessment System (ICAS). The analysis indicated a low institutional risk. CONAGUA, in addition to drawing on the institutional capacity of its central offices for purposes of the program, through the Office of Federal Program Management for drinking water and sewerage, has 13 watershed bureaus and 20 local offices, all of which will support execution of various stages of the program. CONAGUA also has a comprehensive, updated, and reliable database that will allow it to properly monitor the projects and establish the necessary technical and financial oversight of the program.

- 2.11 **Financial viability.** Information provided by a sample of 60 projects representative of the type of work to be financed by the program was analyzed. In 16 cases, the rate scheme established made it possible to cover the administration, operating, and maintenance costs of the systems, thus ensuring the financial sustainability of the system. During program execution, financial feasibility studies for the projects will be completed, taking account of the fact that the service rates will need to cover, at a minimum, the administration, operating and maintenance costs of the systems, and must include a component for establishing a reserve fund to finance emergency repairs. One of the contractual conditions will be that the operating revenues from the works to be financed are sufficient to cover administration, operating, and maintenance costs, and, should they be insufficient to do so, due to the fact that the socioeconomic conditions of the communities' inhabitants makes this impossible, necessary measures, acceptable to the Bank, will be adopted to ensure that these costs are financed in a timely fashion (see [optional link 4](#)).
- 2.12 **Economic viability.** The program will be carried out as a water and sanitation multiple works global program. A cost-benefit analysis was conducted for a sample of 41 water projects and 22 sanitation projects, representing approximately 5% of the investment. Given the type of projects to be financed (small, low-cost projects), the sample analyzed is considered to be representative of the universe of interventions, with the following factors having been taken into account: (i) size of the communities; (ii) geographic distribution (two projects per state, in priority municipios); and (iii) type of project (breakdown of water vs. sanitation projects). In analyzing the water projects, information from socioeconomic surveys conducted during the preparation of the second stage of the program (2007) was used. Of the water projects evaluated, 20 (49%) are socioeconomically viable, with economic internal rates of return (EIRRs) of between 12.1% and 76.1%, while among the sanitation projects evaluated, six (27%) are socioeconomically viable, with EIRRs of between 12% and 74.8% (see [optional link 2](#)). The sample analyzed consisted of projects that states submitted to CONAGUA for financing. In the case of non-viable projects, CONAGUA will conduct a technical review to establish ways of reducing investment costs, where possible. Given that the estimated benefits of the projects analyzed are based on the year 2007 (associated with a relatively low-percentage viability rate), prior to the start of program execution a socioeconomic study will be completed, involving socioeconomic surveys in different geographic regions of the country and a cost-benefit assessment of a broad sample of projects. Based on the conclusions, reference cutoff values for per-connection costs in water and sanitation projects will be established. Projects whose cost per connection rate is less than or equal to the established values will be considered socioeconomically viable, and therefore automatically eligible for program financing. If the cost per connection is above those values, the projects will be eligible for the program if a cost-benefit analysis indicates that the EIRR is above 12%. The methodology to be used for the cost-benefit analysis will be detailed in the program's OPM. The monthly rate that will need to be paid by users of the water systems analyzed in the sample range from a low of 20 Mexican pesos to a high of 122 Mexican pesos



(US\$1.5 to US\$9.1) per connection, depending on whether a gravity or pump system is being used. According to information from Mexico's Instituto Nacional de Estadística y Geografía de México [National Institute of Statistics and Geography] (INEGI) on incomes of the beneficiary households, the rates to be charged for the program-financed systems represent between 0.6% and 3.9% of monthly family income, which is considered to be acceptable.

- 2.13 **Social viability.** In previous phases of the program, community support and participation actions were implemented in all of the states. This made it possible to accumulate significant experience working directly with the beneficiary communities and their water committees. The proposed operation builds on the progress made thus far and will include actions aimed at strengthening the institutional capacity of state executing agencies to promote participatory processes throughout the entire project cycle and to make self-management of the systems feasible (see [optional link 3](#)). In addition, closer alignment between technical and social project considerations will be promoted, to ensure that the proposed solutions meet both the communities' expectations and fit their capacity to sustainably administer, operate, and maintain the systems. An improved community support and participation plan, which will be included as an annex to the OPM, will step up support to the communities during the operational phase, in order to ensure that they fully develop their capacities to manage the systems and/or to coordinate with the municipios in cases where there is a shared responsibility for maintenance. Women's involvement in the participatory diagnostic assessments, water committees, and training events will continue to be promoted, and specific support strategies will be developed for indigenous communities.

### III. IMPLEMENTATION AND MANAGEMENT PLAN

#### A. Implementation arrangements

- 3.1 The United Mexican States will be the borrower, represented by the Department of Finance and Public Credit (SHCP). The executing agency will be CONAGUA. BANSEFI will continue to act as the program's financial agent, as designated by the Government of Mexico. Among its support and monitoring responsibilities will be the submission of disbursement requests and project reports to the Bank.
- 3.2 CONAGUA will be responsible for technical program coordination and will provide the resources to be transferred to the states. In addition, it will be responsible for commissioning audits and hiring consultants to conduct program evaluations. The states will contribute the counterpart resources needed to complete the financing of the projects, for which purpose they may obtain resources from participating municipios, operating entities, and communities. Execution of the projects will be entrusted to the CEASs or their equivalent, as well as to the municipios or their operating entities, based on the needs identified and inventoried at the local and regional levels, and project eligibility criteria. The rural communities will participate through their Assemblies or other form of community

organization. They will submit their requests to the municipios or states, and their participation will be agreed on and coordinated with the relevant state and municipal entities. In specific cases, where necessary or desirable, CONAGUA may execute resources directly to carry out actions needed to solve a problem or to address federal targets, priorities, or commitments. Execution will be monitored by the Water, Drainage, and Sanitation Section, through the Office of Federal Water and Sanitation Program Management; by the Planning Section, through the Office of International Cooperation; and by the Administration Section, through CONAGUA's Office of Financial Resources.

- 3.3 **Eligibility and prioritization criteria.** All Mexican states and municipios will be eligible to participate in the program, even if they have been the beneficiaries of previous stages, provided that their coordination agreement, signed with the Government of Mexico and modified as needed to include updates related to the present operation, remains in force. To be declared eligible, municipios must formalize their accession to the coordination agreement signed between the state government and the federal government. Projects that meet the following conditions will be eligible for financing: (i) they must be implemented in communities of fewer than 15,000 inhabitants; (ii) they must have a positive social feasibility finding; (iii) they must include projects with detailed designs validated by the CONAGUA offices, and taking into account environmental, economic, financial, and engineering factors; and (iv) they must have a written commitment from the community to pay the rates that have been established, or, where relevant, a commitment by the municipio or operating entity to provide the resources needed for administering, operating, and maintaining the infrastructure. The prioritization criteria set by the government, pursuant to the program's rules of operation, are as follows:

**Table IV. Prioritization criteria**

CRITERIA	POINTS
Communities included by SEDESOL in the National Crusade against Hunger; and/or communities proposed or determined by CONAGUA to have priority status	50
Highly or very highly marginalized communities	40
Communities with coverage of less than 20% of the level of service being requested (2)	30
Increase in coverage of water, sewerage, and sanitation services	0 - 20
Highest number of inhabitants benefited	0 - 15

- 3.4 **Operating and Procedural Manual (OPM).** The program will be executed according to the provisions of the OPM, which will establish the eligibility criteria for beneficiaries and projects and for allocating nonreimbursable resources to municipios. It will also detail the responsibilities, rules, and procedures related to the programming of activities and preparation of annual work plans; review and approval of projects; procurement and contracting; handling and filing of supporting documentation for bidding processes; financial/accounting management;

conducting of audits; and the program's monitoring and evaluation system. The OPM will be updated, based on the manual in effect during the third phase of the program. Annexed to the manual will be an ESMP detailing the strategy for mitigating any adverse environmental or social impacts that could be caused by the planned projects, together with monitoring and oversight measures. The entry into force of the OPM, pursuant to the terms agreed on with the Bank, will be a special condition precedent to the first disbursement of loan resources, and any substantial modification to the manual will require the prior no objection of the Bank.

- 3.5 **Financial/accounting management.** CONAGUA will be responsible for the consolidated accounting/financial management of the program, for which it will: (i) keep separate accounts and budgets to manage loan resources, reflecting the amounts transferred to the states, as specified in the execution agreements; (ii) maintain an auxiliary system for administering, recording, and authorizing payments for works contracts, procurement of goods and consulting services, and local contributions included in the contracts executed in the respective states and municipios; (iii) submit the program's consolidated financial reports in a timely manner, and make available to the Bank and to the external auditors any accounting, financial, and other information the Bank may require; (iv) maintain records of disbursement requests; and (v) maintain an effective record-keeping system for documentation supporting eligible expenditures, for verification by the Bank and the program external auditors. The executing agencies at the state or municipal level, as the case may be, will meet the conditions described in the Operating Manual and will: (i) prepare and present, in a timely manner, an accounting of the use of program resources and any other information that CONAGUA requires to submit its reports, through BANSEFI, to the Bank; (ii) have supervision mechanisms, including site visits to constructed works; and (iii) keep the original supporting documentation on the use of program funds in an accessible records system.
- 3.6 **Procurement of works, goods, and services.** All procurements will be carried out in accordance with the Bank's procurement policies (documents GN-2349-9 and GN-2350-9). For purposes of executing the loan, CONAGUA will submit to the Bank the consolidated Procurement Plans of all of the states for each budget period (12 months). These plans will specify the review method to be used for the respective procurements. In February 2013, the Bank's Board of Executive Directors accepted the increased use of Mexico's public procurement and contracting system (adoption of the Mexican Public Contracting System), pursuant

to the provisions of the updated country strategy (document GN-2595-3);<sup>16</sup> the system may be used once the corresponding implementation agreement with the Government of Mexico has been signed.

- 3.7 **Audits.** CONAGUA, through the financial agent, will submit to the Bank annually the program's duly audited financial statements, prepared by external auditors acceptable to the Bank, pursuant to the terms of reference agreed on with the Bank. Given the decentralized nature of the program, and consistent with the previous operation, it is recommended that the period for submitting the audited financial statements be extended to 180 days following the close of the fiscal period. The costs of audits may be financed with loan resources.

**B. Monitoring and evaluation**

- 3.8 **Monitoring and evaluation plan.** The program will be monitored and evaluated using the Bank's supervision toolkit, based on the preparation of a program execution plan, a procurement plan, and a plan to collect information from the results matrix. The costs of these activities are duly reflected in the program budget. Monitoring and evaluation, to occur during the preinvestment and investment stages, will be a condition of execution. For program monitoring, CONAGUA will submit semiannual progress reports, to include the environmental and social factors that will be used as a basis for preparing the Project Monitoring Reports (PMRs) and Project Completion Report (PCR). There will be an annual review of the extent to which the program's objectives have been met, along with an analysis of problems that have arisen during execution, and agreement will be reached regarding any necessary adjustments to the program's OPM and/or annual work plan. A consulting firm acceptable to the Bank will carry out a final evaluation once 90% of the resources have been committed, based on the targets and indicators agreed on with the Bank and detailed in the Results Matrix. The terms of reference and the selection process will be approved in advance by the Bank.

---

<sup>16</sup> Mexico's federal system of public contracting can be used for all contracts for amounts up to the threshold established by the Bank for international competitive bidding for the procurement of works (reference figure: US\$15 million) and for goods and services (reference figure: US\$3 million). Above these amounts, the Bank's policies in documents GN-2349-9 and GN-2350-9 must be applied. Use of the system does not include the following: (i) contracts for consulting services; (ii) PEMEX contracts; (iii) contracts concluded pursuant to state or municipal government regulations; and (iv) direct contracting between public entities (inter-administrative contracts). Moreover, provisions of the federal system regarding the exclusion of foreign entities and degree of national integration do not apply.

Development Effectiveness Matrix			
Summary			
I. Strategic Alignment			
1. IDB Strategic Development Objectives	Aligned		
Lending Program	i) Lending for poverty reduction and equity enhancement, and ii) Lending to support climate change initiatives, renewable energy and environmental sustainability.		
Regional Development Goals	Incidence of waterborne diseases (per 100,000 inhabitants).		
Bank Output Contribution (as defined in Results Framework of IDB-9)	i) Households with new or upgraded water supply (percentage of indigenous households), and ii) Households with new or upgraded sanitary connections (percentage of indigenous households).		
2. Country Strategy Development Objectives	Aligned		
Country Strategy Results Matrix	GN-2595-1	Increase coverage and improve management of drinking water and sanitation services.	
Country Program Results Matrix	GN-2696	The intervention is not included in the 2013 Country Program Document.	
Relevance of this project to country development challenges (If not aligned to country strategy or country program)			
II. Development Outcomes - Evaluability	Highly Evaluable	Weight	Maximum Score
	9.0		10
3. Evidence-based Assessment & Solution	9.4	33.33%	10
4. Ex ante Economic Analysis	10.0	33.33%	10
5. Monitoring and Evaluation	7.5	33.33%	10
III. Risks & Mitigation Monitoring Matrix			
Overall risks rate = magnitude of risks*likelihood	Medium		
Identified risks have been rated for magnitude and likelihood	Yes		
Mitigation measures have been identified for major risks	Yes		
Mitigation measures have indicators for tracking their implementation	Yes		
Environmental & social risk classification	B		
IV. IDB's Role - Additionality			
The project relies on the use of country systems (VPC/PDP criteria)	Yes	Financial Management: Budget, Treasury, External Control, and Internal Audit. Procurement: Information System.	
The project uses another country system different from the ones above for implementing the program			
The IDB's involvement promotes improvements of the intended beneficiaries and/or public sector entity in the following dimensions:			
Gender Equality	Yes	The program includes activities to increase participation of women in the administration, operation and maintenance of the systems. It will also includes sanitation education activities geared towards women.	
Labor			
Environment			
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project	Yes	The TC ME-T1244 has the objective of strengthening program execution.	
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan			

The PROSSAPyS IV has the objective of increasing coverage of services of potable water and sanitation in localities of up to 15,000 inhabitants, particularly of high and very high marginality. To achieve this objective, the program finances community management of systems in localities of up to 2500 inhabitants, and the design and instrumentation of management schemes according to the characteristics in localities of 2501 to 15,000 inhabitants. In both cases, the program prioritizes localities situated in the municipalities identified in the National Crusade against Hunger. It is expected that through the program around 600 thousand people will have new access to potable water, and 390 thousand people will have access to sewerage and sanitation.

The logical framework presented in the document is consistent, covering inputs, outputs, outcomes and impacts. The results matrix includes indicators at the outcome and output indicators, however impacts will not be monitored. The indicators in the results matrix meet SMART criteria and include baseline values and targets.

The project has an economic cost-benefit analysis for a sample of projects that supports the economic viability of the proposed activities.

CONAGUA will be responsible for auditing and contracting the consultancies to evaluate the program. Monitoring and evaluation activities have been budgeted and planned. The data sources for monitoring include semester, annual and final evaluation reports, and project delivery acts. The proposed evaluation is an ex-post cost-benefit analysis.

## RESULTS MATRIX

<b>PROJECT OBJECTIVE</b>	The program will continue supporting the Government of Mexico's efforts to expand the coverage of water and sanitation services in communities with up to 2,500 inhabitants, in which community management of systems will be promoted, serving primarily highly and very highly marginalized communities, giving priority to those located in municipios identified in the National Crusade against Hunger. The program will, on an exceptional basis, also consider communities of 2,500 to less than 15,000 inhabitants, where it will promote the design and implementation of service management arrangements aligned with the characteristics of the communities.
--------------------------	---

### OUTCOMES

#### Outcome 1: Access to drinking water services

Indicator	Unit of measure	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Target	Comments/Mean of Verification
Rural coverage of drinking water services (communities with less than 2,500 inhabitants)	%	80.3	2012	80.4%	80.7%	81.1%	81.4%	81.4%	"Rural" is construed to mean communities with less than 2,500 inhabitants
Population that gains access to drinking water in communities with less than 2,500 inhabitants <sup>1</sup>	Inhabitants	20,900,000	2012	149,389	149,389	149,388	149,388	597,554	End of fiscal year report
Population that gains access to drinking water in communities with 2,501 to 15,000 inhabitants	Inhabitants	12,500,000	2005	597	597	598	598	2,390	End of fiscal year report

#### Outcome 2: Access to sanitation services

Rural coverage of sanitation services (communities with less than 2,500 inhabitants)	%	70.1	2012	70.2%	70.4%	70.5%	70.6%	70.6%	"Rural" is construed to mean communities with less than 2,500 inhabitants
Population that gains access to sewerage in communities with less than 2,500 inhabitants <sup>2</sup>	Inhabitants	18,300,000	2012	88,111	88,111	88,112	88,112	352,446	End of fiscal year report

<sup>1</sup> The National Water Commission (CONAGUA) will report the results of drinking water coverage by number of inhabitants. Using this information, the Bank will report the number of households benefited, based on an average of five occupants per household.

<sup>2</sup> CONAGUA will report the results of sewerage coverage by number of inhabitants. Using this information, the Bank will report the number of households benefited, based on an average of five occupants per household.

Indicator	Unit of measure	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Target	Comments/Mean of Verification
Population that gains access to sewerage in communities with 2,501 to 15,000 inhabitants	Inhabitants	11,500,000	2005	961	961	961	962	3,845	End of fiscal year report
Population with individual sanitation solutions	Inhabitants	0	N/A	8,498	8,498	8,498	8,499	35,793	End of fiscal year report
<b>Outcome 3: Sustainability of rural systems</b>									
Indicator	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Target	Comments/Mean of Verification	
Women who are members of the community organizations	%	20%	20%	22%	25%	30%	30%	Semiannual reports. By-laws establishing the community organizations (Committee, Board, etc.)	
Community organizations whose operating revenues exceed the costs of administration, operation, and maintenance (community self-management of the systems)	%	0				75%	75%	Final Evaluation Report	
Operators whose operating revenues exceed the costs of administration, operation, and maintenance (municipal management of the systems)	%	0				50%	50%	Final Evaluation Report	
Systems managed by community organizations functioning according to design specifications (community self-management of the systems)	%	0				75%	75%	Final Evaluation Report	
Systems managed by operators functioning according to design specifications (municipal management of the systems)	%	0				75%	75%	Final Evaluation Report	

<b>OUTPUTS</b>								
<b>Component 1: Infrastructure</b>								
<b>Indicator</b>	<b>Unit of measure</b>	<b>Associated outcomes</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Target</b>	<b>Comments/Mean of Verification</b>
Drinking water systems constructed	Systems	Outcome 1	375	375	375	375	1,500	Official document confirming delivery/receipt of the work, consolidated in the semiannual reports
Sanitary sewerage systems constructed	Systems	Outcome 2	137	137	138	138	550	Official document confirming delivery/receipt of the work, consolidated in the semiannual reports
Rural sanitation systems constructed	Systems	Outcome 2	1,122	1,122	1,122	1,122	4,488	Official document confirming delivery/receipt of the work, consolidated in the semiannual reports
Pilot projects built for re-use of treated wastewater	Projects	Outcome 2	0	1	1	1	3	Official document confirming delivery/receipt of the work, consolidated in the semiannual reports
<b>Component 2: Community support and participation</b>								
Community organizations created	Community organization	Outcome 3	500	500	500	500	2,000	By-laws establishing the Committee, consolidated in the semiannual reports
Community organizations trained in administration and/or operation and maintenance	Community organization	Outcome 3	300	300	300	300	1,200	Reports of firms contracted to provide training, consolidated in the semiannual reports
Communities trained in environmental education	Communities	Outcome 3	500	500	500	500	2,000	An average population of 540 inhabitants per rural community is used.  Reports of the firms responsible for training, consolidated in the semiannual reports
Pilot project for securing legal status for community organizations created in earlier phases of the program	Projects	Outcome 3	0	1	1	1	3	Semiannual reports
<b>Component 3: Institutional strengthening</b>								
States with institutional strengthening plans implemented	States	Outcome 3	8	8	8	7	31	End of fiscal year report, consolidated in the semiannual reports
Pilot project for georeferenced systems implemented	Projects	Outcome 3	1	0	1	1	3	Semiannual reports



## **FIDUCIARY AGREEMENTS AND REQUIREMENTS**

**Country:** Mexico

**Project number:** ME-L1147

**Name:** Program for the Sustainability of Water Supply and Sanitation Services in Rural Communities IV (PROSSAPyS IV)

**Executing agency:** National Water Commission (CONAGUA)

**Prepared by:** Gloria Coronel, Lead Financial Management Specialist; Victor Escala, Fiduciary Specialist in Procurement; Uriel Barrios, Fiduciary Consultant; and Miriam Garza, Fiduciary Operations Analyst

### **I. EXECUTIVE SUMMARY**

- 1.1 The general objective of PROSSAPyS IV is to continue supporting the Government of Mexico's efforts to expand the coverage of water and sanitation services in communities with up to 2,500 inhabitants, in which community management of systems will be promoted, serving primarily highly and very highly marginalized communities, giving priority to those located in municipios identified in the National Crusade against Hunger. The program will, on an exceptional basis, also consider communities of 2,500 to less than 15,000 inhabitants, where it will promote the design and implementation of service management arrangements aligned with the characteristics of the communities—in both cases giving priority to communities in municipios identified in the National Crusade against Hunger.
- 1.2 The first phase of Bank financing for PROSSAPyS IV began in 1998, and during the previous three stages (loans 1161/OC-ME, 1645/OC-ME, and 2512/OC-ME) the Bank gained valuable experience that will serve as a basis for executing this fourth operation.

### **II. THE EXECUTING AGENCY'S FIDUCIARY CONTEXT**

- 2.1 The executing agency will be the Comisión Nacional del Agua [National Water Commission] (CONAGUA), operating through its Office of Federal Program Management, with support from the Office of International Cooperation and the Office of Financial Resources. Execution of the program is decentralized at the national level, with the participation of the Comisiones Estatales de Agua y Saneamiento [State Water and Sanitation Commissions] (CEASs), municipios,

and operating entities, as well as CONAGUA. In coordinating with the Bank, PROSSAPyS will receive support from the Banco del Ahorro Nacional y Servicios Financieros [National Savings and Financial Services Bank] (BANSEFI), in its role as the financial agent designated by the Department of Finance and Public Credit (SHCP).

### **III. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS**

- 3.1 In September 2013, an institutional capacity analysis was conducted. It included interviews with staff of the Offices of Personnel, Financial Resources, Material Resources, and Innovation and Quality; the Office of Coordination for Service to Supervisory Agencies, of the Administration Section; the Office of Evaluation and Programming, of the Programming Section (or “Planning,” as it is now known); the Internal Control Organ; and the auditing firm of Béjar, Galindo, Lozano and Cía., S.C. Meetings were also held with the Office of Information and Communication Technologies and the Office of Federal Water and Sewerage Programs.
- 3.2 The Institutional Capacity Assessment System (ICAS) analysis of the executing agency (CONAGUA) indicated “sufficient development” and, therefore, a low risk associated with program execution. Ex post review of procurements is recommended, except where otherwise indicated in the Procurement Plan for specific processes. Ex post review of disbursements is also recommended.
- 3.3 Factors to be considered in the special conditions of the loan contract include:
  - a. Entry into force of the mandate agreement designating BANSEFI as the financial agent.
  - b. The exchange rate for accounting purposes will be the rate in effect as of the last business day of the month immediately preceding the expenditure, or a rate agreed between the Bank and the executing agency.
  - c. Submission of the program’s annual audited financial statements, prepared by external auditors acceptable to the Bank and pursuant to the terms of reference agreed with the Bank, within 180 days following the close of the fiscal period.
  - d. Submission of unaudited semiannual reports within 60 days following the close of each six-month period.
  - e. Prior to the start of any call for bids or the awarding of any contracts, the executing agency will present for the Bank’s review and approval the proposed Procurement Plan, in accordance with the provisions of the Bank’s procurement policies. The plan is to be updated every 12 months during program execution, and each updated version will be submitted for the Bank’s review and approval. The plan will specify which contracts are subject to ex ante, and which to ex post, review.

#### IV. RETROACTIVE FINANCING AND RECOGNITION OF EXPENDITURES

- 4.1 The Bank may retroactively finance eligible expenditures for up to US\$90 million of the amount of the proposed financing. These expenditures will be financed provided that they comply with requirements substantially similar to those established in the loan contract. Eligible expenditures made by CONAGUA prior to the date of the loan approval will be recognized for up to US\$22.5 million of the estimated amount of the local contribution. These expenditures are to be made during the 18 months preceding the date on which the loan is approved, but may in no case be made prior to 30 September 2013, the approval date of the Project Profile.

#### V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 5.1 The program calls primarily for procurement of works and, to a lesser extent, goods, and nonconsulting services and contracting consulting firms and/or individual consultants. For this purpose, the Bank's Policies on the Procurement of Works and Goods (document GN-2349-9) and its Policies on the Contracting of Consultants (document GN-2350-9), both of 2011, will apply. In the event that these policies are modified, the new version of the policies may be applied, subject to written agreement by the executing agency.
- 5.2 In February 2013, the Bank's Board of Executive Directors accepted the increased use of Mexico's public procurement and contracting system (adoption of the Mexican Public Contracting System), pursuant to the provisions of the updated country strategy (document GN-2595-3).<sup>1</sup> The system may be used once the corresponding implementation agreement with the Government of Mexico has been signed.

**Table of Threshold Amounts (US\$)**

Works			Goods <sup>2</sup>			Consulting Services	
International competitive bidding	National competitive bidding	Price comparison	International competitive bidding	National competitive bidding	Price comparison	Publicity, international consulting services	Shortlist 100% national
>15 million	< 15 million and > 500,000	< 500,000	>= 3 million	< 3 million and >100,000	<100,000	> 200,000	< 500,000

<sup>1</sup> Mexico's federal public contracting system can be used for all contracts for amounts up to the threshold established by the Bank for international competitive bidding for the procurement of works (reference figure: US\$15 million), and for goods and services (reference figure: US\$3 million). Above these amounts, the Bank's policies in documents GN-2349-9 and GN-2350-9 must be applied. Use of the system does not include the following: (i) contracts for consulting services; (ii) PEMEX contracts; (iii) contracts concluded pursuant to state or municipal government regulations; and (iv) direct contracting between public entities (inter-administrative contracts). Moreover, provisions of the federal system regarding the exclusion of foreign entities and degree of national integration do not apply.

<sup>2</sup> Includes nonconsulting services.

## Main Procurements

Activity	Type of Bidding	Estimated Amount US\$ (thousands)
<b>Nonconsulting goods and services</b>		
Various contracts for procurement of computer and audiovisual equipment, vehicles, office supplies, and low-cost portable devices to measure water quality. Preparation of guides, manuals, and teaching materials. (The estimated value of each contract is US\$100,000.)	NCB, PC	8,440
<b>Consulting services (Firms<sup>3</sup> and individuals)</b>		
Various contracts to hire consultants to provide technical supervision of works, monitor and evaluate outcomes, etc. (The estimated value of each contract is US\$100,000.)	NICQ, QCBS, CQS	13,330
Various contracts to hire consultants to conduct participatory diagnostic assessments of the current social situation in each community, and to carry out activities to promote active participation of community members, educational programs on environmental and sanitary hygiene, assistance to community organizations following delivery of the systems, etc. Various contracts for institutional strengthening of CONAGUA and the executing agencies, as well as the community associations charged with administering the systems (defining the financing scheme to guarantee the local counterpart contribution, establishing replenishment and emergency funds, determining legal arrangements and securing formal legal status as community organizations). Contracts for holding regional and national workshops for training and dissemination of experiences and best practices. (The estimated value of each contract is US\$100,000.)	NICQ, QCBS, CQS	24,240
Conducting sectoral diagnostic assessments and preparing investment plans. Carrying out feasibility and design studies needed to support the proposed works for water and wastewater service for states participating in the program. (The estimated value of each contract is US\$200,000.)	QCBS, FBS, LCS, CQS	
Contracting of consulting services for diagnostic assessments, and identification and implementation of appropriate management arrangements for communities with 2,500 to less than 15,000 inhabitants.	QCBS, CQS	
<b>Works</b>		
Various contracts for the construction of systems to supply drinking water, sewerage, and sanitation services for rural communities.	NCB, PC	496,030
Pilot projects for wastewater treatment works, water recovery and re-use for small-scale agricultural irrigation (WWTP) (Estimated value is between US\$400,000 and US\$700,000 per WWTP)	PC	16,460

5.3 **Direct procurements:** No direct contracting is anticipated.

5.4 **Procurement supervision.** Given the low level of fiduciary risk associated with the project and the experience gained in prior operations, the review will occur on an ex post basis, unless otherwise determined in writing in the Procurement Plan for specific contracts. There will be one inspection visit per year. The ex post review of procurements will be carried out by an external auditing firm, which

<sup>3</sup> In the case of services provided by consulting firms, the shortlist is made up of firms of various nationalities. See Policies for the Selection and Contracting of Consultants (document GN-2350-9), paragraph 2.6.

will submit a special file with the procurement report, pursuant to the terms of reference agreed on by the Bank and the Civil Service Department (SFP).

- 5.5 **Records and files.** The files must be made available for any procurement review that the Bank considers relevant.

## **VI. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS**

### **A. Programming and budget**

- 6.1 The Department of Finance and Public Credit (SHCP) is responsible for overseeing preparation of the budget and monitoring its execution. In the case of CONAGUA and PROSSAPyS, the budget planning exercise begins with proposing municipal projects to the state; the proposals are then reviewed by the CEASs. Each year, CONAGUA signs execution agreements with the federative entities, and transfers to each state's Administration and Finance Office, or its equivalent, resources for approved projects slated to be executed in that fiscal period, with technical support from the CEASs.
- 6.2 Once the loan contract is signed, expenditures charged to the financing must be identified in the budget and charged to external loan resources (under number 2). The local contribution is funded primarily with state and municipal resources, and is not reflected in the federal budget. In some cases, consistent with the program's Operating Manual, the federal support may be greater than the established minimum of 70%. All expenditures made prior to the entry into force of the contract are recorded under the number 1, signifying federal resources, and, pursuant to law, may be presented for reimbursement under retroactive recognition of expenditures. Expenditures charged to the financing subsequent to the entry into force of the contract must be recorded under the number 2, the classification for external credit.

### **B. Accounting and information systems**

- 6.3 The program is being executed in a decentralized manner, in all of the states. Program accounting will be incorporated into the country systems at the federal level at CONAGUA, and at the state level at the respective Finance Departments, or, in some states, at the municipal level. An execution agreement will be signed each year with the states, establishing cash flows for authorized works; CONAGUA will transfer the necessary resources to the corresponding state, to be charged against the budgeted resources at the time the transfer occurs. Each federative entity is responsible for recording and accounting for the transfers received, as well as for the expenditures made for each local project. The resources from CONAGUA will be deposited in bank accounts earmarked exclusively for PROSSAPyS. Changes to the execution agreements, in terms of projects and/or amounts, must be authorized in advance by CONAGUA. At the close of each fiscal period, any remaining resources must be returned to CONAGUA.

- 6.4 CONAGUA has an internally developed system, known as SISBA, to provide national monitoring of works approved in the execution agreements signed each year. Each CEAS is responsible for sending CONAGUA quarterly execution progress reports, as well as a year-end summary. The Operating Manual specifies the model for, and frequency of, these reports.

**C. Disbursements, flow of funds, and justification of expenditures**

- 6.5 As with previous operations, it is anticipated that, for the present operation, disbursements will be made using the “reimbursement of expenditures” method. The new operation will carry forward the process of simplified justification of expenditures implemented with PROSSAPyS III. This will be based on resource transfers made by CONAGUA to the federative entities, leaving a margin for the potential year-end return of funds by the states, as well as a margin for expenditures that may be deemed ineligible. This simplified process is the result of the Bank’s experience during field visits, in which it was evident that appropriate controls were in place in the states to oversee and record resource flows; it was also noted that CONAGUA carries out monitoring through SISBA, and is promoting increased use of country systems. The exchange rate to be applied for currency conversions to U.S. dollars for payments made in Mexican pesos will be the rate in effect on the last business day of the month immediately preceding the expenditure.
- 6.6 CONAGUA is financing 80%, on average, of each project approved in the execution agreement, with the states and/or municipios making up the remainder. The states initiate the selection and contracting process for the works once they have received the funds from all of the financing sources. In some cases this can delay the start of the process of selecting contractors.

**D. Internal control and internal audit**

- 6.7 The Civil Service Department (SFP) will serve as the oversight entity, using internal control units (OIC) to carry out internal audits and controls. In each division or entity, there are at least three managers who are employed by the SFP, in accordance with the terms of the Federal Public Administration Act. This personnel receives assistance from division staff assigned to the OIC to help meet the requirements of the annual work plan approved by the SFP. The OIC is also responsible for collaborating with the external auditors, and for monitoring implementation of recommendations of its own, as well as of external, auditors. This organizational structure for overseeing the functions of internal control is also applied at the state level.

**E. External control and reports**

- 6.8 The Federal Audit Office (ASF) is a body within the legislative branch that is responsible for carrying out external audits of the government. By law, the ASF formally begins its oversight with an examination of the executive branch’s public accounts for a given fiscal period. It conducts its work in May of the following

year, and presents its report to the legislative branch in February of the year after it begins its examination. Thus, the report is presented 14 months after the close of the fiscal year. The ASF does not conduct the financial audits contractually required by the Bank; however, in accordance with its work plan, it has carried out operational audits of a number of projects financed in part by the Bank. The resulting reports have been used in supervising the operations.

- 6.9 The SFP Act establishes that the General Directorate of External Audits (SFP-DGAE) is responsible for selecting the external auditing firms to audit international financial institution projects, as well as to audit the operations of decentralized and deconcentrated entities such as CONAGUA, a task involving more than 350 external audits. The Bank has harmonized terms of reference for audits, as well as the models for presenting half-year and annual financial statements. The program will present an annual, as well as a final, audited financial statement. Given the decentralized nature of the program, it is recommended that the time period for presenting the audited financial statements be extended from 120 days to 180 days following the close of the fiscal period, with presentation of the final statement set at 180 days following the expected date of the last disbursement. In light of the simplified process of accounting for expenditures, specific terms of reference for the auditor will be prepared to ensure that the review is conducted according to the agreed procedures. The cost of audits may be financed with loan resources.

#### F. Financial supervision plan

Supervisory activity	Supervision plan			
	Nature and scope	Frequency	Responsible party	
			IDB	Third party
Financial	Ex post review of financial support for disbursement requests	Periodic	Fiduciary/financial specialist	External auditor, with the audited financial statements
	Fiduciary inspection visit / analysis of internal controls and control environment for payments and procurements	Annual	Fiduciary, Financial, and Procurement team	
	Annual allocation of budgetary resources needed for project execution	Annual	Project Team Leader, with support from the fiduciary/financial specialist	Executing agency
Compliance	Presentation of financial statements	Annual and final	Project Team Leader, with support from the fiduciary/financial specialist	Executing agency
	Conditions precedent to the first disbursement	Once	Project Team Leader and fiduciary team	Executing agency

**G. Execution mechanism**

- 6.10 The proposed execution scheme is decentralized and is coordinated by CONAGUA, through the CEASs, with all of the states participating in the PROSSAPyS. This execution arrangement is similar to the one successfully employed in previous PROSSAPyS operations, which involved technical assistance by CONAGUA and the CEASs. CONAGUA signs annual execution agreements with each federative entity, and transfers resources to the respective Finance Departments for monitoring contracts and effecting payments. For this fourth phase, the operating rules used in previous programs will be updated, and simplified procedures will be used in providing the Bank an accounting of expenditures (see above points).



DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/13

Mexico. Loan \_\_\_/OC-ME to the United Mexican States  
Program for the Sustainability of Water Supply and  
Sanitation Services in Rural Communities IV  
(PROSSAPyS IV)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the United Mexican States, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the Program for the Sustainability of Water Supply and Sanitation Services in Rural Communities IV (PROSSAPyS IV). Such financing will be for the amount of up to US\$450,000,000, from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.