

PROGRAM IN SUPPORT OF REFORM OF THE WATER SUPPLY AND SANITATION SECTOR

(AR-0175)

EXECUTIVE SUMMARY

BORROWER: Republic of Argentina

EXECUTING AGENCY: Ente Nacional de Obras Hídricas de Saneamiento
[National Board of Water and Sanitation Works]
(ENOHSA)

AMOUNT AND SOURCE: IDB (OC): US\$250.0 million
Local counterpart funding: US\$320.6 million
Total: US\$570.6 million

**FINANCIAL
TERMS AND
CONDITIONS:** Amortization period: 25 years
Disbursement period: 5 years
Interest rate: variable
Inspection and supervision: 1%
Credit fee: 0.75% annual of undis-
bursed balance.
Currency: US dollars, from the
Single Currency Facility

OBJECTIVES: The main objective of the program is to support the process of sector reform and promote private sector participation in both service delivery and investment financing. The following specific objectives are proposed: (i) to improve the efficiency and quality of service; (ii) to ensure the long-term self-sustainability of the enterprises concerned; (iii) to strengthen regulatory capacity at the provincial level; and (iv) to improve access to service for broad segments of the population.

To accomplish these objectives, the program will employ commercial public and private cofinancing mechanisms in support of: (i) measures to improve the administrative, financial, commercial, and operational management of the enterprises concerned; (ii) institutional reform and restructuring activities, including those required to increase private sector participation; (iii) emergency, rehabilitation and improvement works on existing systems; (iv) works to expand drinking water supply and sewage collection systems; (v) works for the control of water pollution caused by the service; and (vi) measures to strengthen the capacity of the regulatory agencies.

DESCRIPTION:

The proposed operation will be executed as a global multiple-works program, with the participation of provincial or local service providers. Based on a preliminary estimate, between 80 and 100 localities will benefit from the program with services provided by cooperatives, municipal entities, provincial enterprises, semipublic corporations, or private concessions. The operation will consist of three complementary windows or lines of financing as explained below:

1. Service expansion projects

a. Trust administered by a private bank
(US\$100 million)

In view of the particular risk/return characteristics of investment in the sanitation sector, and the reticence of private banks to participate individually, this mechanism is intended to encourage private bank involvement in the cofinancing of such projects. The trust, to be set up under the administration of a private bank, will provide a conduit for loan and cofinancing resources from commercial banks. For each lending operation, the IDB loan resources will constitute Loan A, which will be used to finance up to 40% of the investment. These resources will be supplemented by Loan B, consisting of the commercial bank resources, and by the counterpart funds to be contributed by the enterprises concerned. In most cases, the counterpart will cover about 30% of total project costs. The terms for the B loans will be determined on the basis of commercial bank risk analyses of each enterprise. The lending terms for trust resources (the A loans) will be uniform for all of the projects and will be determined on the basis of a detailed market analysis. Aside from introducing financial discipline and generating additional resources for investment in the sector, the proposed cofinancing mechanism is designed to: (i) reduce the perception of regulatory and political risk; (ii) encourage private banks to provide broader terms; and (iii) expand the range of projects that will have access to this financing.

b. Trust administered by the Banco de la Nación
(US\$100 million)

A trust similar to the one described above will be set up and administered by the Banco de la Nación Argentina [National Bank of Argentina] (BNA). The resources allocated to this trust, together with

cofinancing resources provided by BNA, will go to smaller projects, requiring less than US\$7.5 million. The resources from this trust (the A loans) will also be used to finance up to 40% of the required investment in each project and will be supplemented with the company counterpart funds (30%) and the BNA cofinancing (the B loans). The terms for Loan B will be determined on the basis of a risk analysis of each participating company to be conducted by BNA. The terms for Loan A will be the same as for the private bank trust above.

2. Institutional restructuring and improvement projects (US\$47.5 million)

Companies, agencies, or cooperatives lacking access to commercial credit because of their precarious situation can go directly to ENOHSA to obtain financing for their institutional restructuring and/or operational improvements. A specific institutional and financial analysis will determine whether the enterprise: (i) requires action to improve its financial, commercial, and operating efficiency; or (ii) should be institutionally restructured to ensure a minimum level of self-sustainability. In the latter case, the possible approaches to be considered will include private sector participation through concessions, management contracts, outsourcing, etc. In principle, under the financing matrix for the operation, 50% of the project cost would be eligible for financing. However, this percentage could rise to the degree that the windows described above are able to attract additional resources and thus enable the IDB to reduce its participation in the commercially viable projects. This would free up resources which could then be transferred to this window and allow projects for commercial, financial, and operational improvement, or business restructuring, to receive up to 80% financing. The counterpart to be covered by the enterprises would be from 20% to 50%.

3. MIF technical cooperation (TC-98-06-32-6)

Given the importance of state regulation, and in view of the problem areas observed in the regulatory agencies concerned, a technical cooperation operation will be conducted as a complement to the program described here to help strengthen existing agencies, establish new ones where they do not exist, and encourage greater private sector participation in the delivery of these services.

**ROLE OF THE
PROJECT IN THE
BANK'S COUNTRY AND
SECTOR STRATEGY:**

The Bank's operating strategy in Argentina places priority on the following areas: (i) continuation and consolidation of progress towards modernizing the state; (ii) reduction of poverty and improvement of living standards; and (iii) improvements in the productivity and competitive position of national producers. The proposed program is consistent with this strategy because it would: (i) promote more efficient and self-sustaining water supply and sanitation services; (ii) introduce mechanisms for attracting private sector participation; and (iii) finance investments in the rehabilitation and expansion of sanitation services, improving the quality of life - particularly for low-income population segments. The Bank's participation in this program will not only help in developing a mechanism for private bank involvement, but will also ensure an emphasis on the institutional strengthening of service providers and regulatory agencies.

**ENVIRONMENTAL AND
SOCIAL REVIEW:**

The rehabilitation and expansion works projects included in this program are intended to improve hygienic and health conditions for the beneficiary populations by ensuring better continuity of service, improved water quality, and greater access to the system. Special attention will be given to sewage treatment to prevent water pollution downstream. Given the nature of the program, the social and environmental impact of the construction works is expected to be minor, temporary, localized, and correctable using known methods.

During the analysis of this operation, the "Environmental procedures for ENOHSA-Financed Programs and Projects", published in October 1994, were revised. With a number of modifications, these procedures will be applied to this new program. The system is used to identify and propose measures to mitigate adverse environmental impact during project preparation.

BENEFITS:

The program is designed to produce the following benefits:

- a. approximately 280,000 new water supply and/or sewer connections, benefiting nearly 1.12 million persons;
- b. support for administrative, commercial, and operational improvements in 40 to 50 service enterprises;

- c. strengthening of approximately 10 regulatory agencies operating in the water resources sector; and
- d. establishment of a cofinancing mechanism providing incentives for private banks to participate in financing investments in this sector and instilling financial discipline in the management of these enterprises.

RISKS:

The main risks of the operation stem from the administrative and financial problems observed in most of the companies concerned. The viability of the proposed cofinancing mechanisms will depend on their credit-worthiness as revealed by the commercial bank analyses. Financing for institutional reform and operational improvements within the weakest companies is expected to mitigate these risks by contributing to their self-sustainability in the near term. In addition, since the cofinancing mechanism will be new to the sector, close monitoring by the executing agency and the Bank will be required to contend with unforeseen developments.

**SPECIAL
CONTRACTUAL
CONDITIONS:**

As conditions precedent to the first disbursement of the operation, the borrower must produce evidence that: (i) the program operating regulations have been agreed upon with the Bank and put into effect (paragraph 3.22); (ii) the ENOHSA institutional and regulatory unit has been set up (paragraph 4.6); and (iii) two qualified professionals have been added to the ENOHSA internal audit unit (paragraph 4.10). As a condition precedent to the first disbursement from each trust, it must be demonstrated that the trust in question has been legally constituted and the necessary contractual formalities have been completed (paragraph 3.24). In addition, as a condition for the first disbursement from the trust administered by Banco de la Nación, the competitive process for selecting the private bank to administer the other trust must have been initiated (paragraph 3.24).

A review will be conducted 12 months after the start of the program with special emphasis on the trust operations (paragraph 3.52).

**SOCIAL SECTOR/
POVERTY REDUCTION:**

According to the guidelines established in paragraph 2.13 of document AB-1704, this program qualifies as a social sector operation. As indicated in paragraph 2.15, however, it is not a poverty targeted operation, since the portion of resources benefiting low-income groups is about 33%.

EXCEPTIONS TO BANK POLICY: See the section on procurement below.

**PROCUREMENT OF
GOODS AND
SERVICES:**

For the procurement of equipment, materials, and other goods by the public sector companies, as well as works fully or partially financed with resources from the loan, international public bidding will be required for all procurement in amounts exceeding US\$350,000 equivalent in the case of goods, and US\$5 million equivalent in the case of construction services. For the procurement of consulting services, international public bidding will be required for all amounts in excess of US\$200,000. Procurement in smaller amounts will be conducted in accordance with national law (see paragraph 3.44 and 3.45).

The private sector companies will procure works and goods in accordance with market practices for the type of good or works concerned. The Bank will ensure that these procurements are effected at market prices (see paragraph 3.49).

The contract for administration of the trust by a private bank will be awarded by means of private bidding, and all sufficiently qualified banks operating in Argentina will be invited to participate. The main qualification criteria include a rating of AA or higher; experience in project finance and corporate finance; experience in trust management; an active presence in the provinces; and a methodological proposal for managing the trust. The intermediation costs involved in administering the trust will be negotiated after selection of the best proposal (see paragraph 3.48).

I. FRAME OF REFERENCE

A. Analysis of the sector

- 1.1 Since 1980, Argentina's water and sanitation sector has been undergoing a profound institutional transformation as a result of the decentralization of its national utilities company, Obras Sanitarias de la Nación (OSN), and the transfer of authority to the provinces to establish their own institutions and methods of providing these services. In the beginning, the provincial institutions that took over services from the OSN retained an excessively objectives-driven approach, concentrating on the expansion of sanitation systems and construction projects, while paying too little heed to the need for self-sustaining financial management and operating efficiency. This approach produced few successes since the provinces did not have the resources necessary for expansion of their services and were no longer receiving traditional support from the national budget. By the early 1990s, these services had deteriorated to a point where provincial governments were forced to make structural reforms, the characteristics of which varied from one jurisdiction to another.
- 1.2 The process described above was intensified in 1989 when the national government introduced a series of economic, political and administrative reforms affecting all sectors of the economy, including public services. As part of this transformation, laws Nos. 23.696 (reform of the State) and 23.697 (emergency economic measures) established the legal basis for private sector participation in providing public services.
- 1.3 Its policy of increased participation by private enterprise in the water and sanitation sector has led to the signing of concession agreements with private companies in Metropolitan Buenos Aires (1993) and parts of the provinces of Corrientes (1991), Santa Fe (1995), Tucumán (1995), Formosa (1996), Santiago del Estero (1997), Córdoba (1997), Salta (1998) and Mendoza (1998), earning Argentina a spot among the region's leaders for the extent of the institutional transformation put into motion. 1/ Similar transfers are in preparation in other provinces, particularly in the case of Buenos Aires province, which plans to award a concession for operation of these services in coming months. In addition, some 10 municipalities have on their own initiative handed over the provision of water and sewer services to private concessionaires. In all, it is estimated that over 50% of

1/ The Tucumán concession ran into political, economic and legal difficulties which forced the concessionaire to rescind its service contract. In Mendoza, a corporation was created and 70% of its shares were sold to a consortium made up of private businessmen.

Argentina's population is now being served by private operators. ^{2/}

- 1.4 The different solutions adopted by these provinces in privatizing parts of their water and sanitation services, and determining the geographical area of each concession, offer certain common advantages such as the rapid entry of private operators into major urban centers, enabling them to make significant improvements in the provision of these services while at the same time allowing diverse forms of administration (i.e. concessions, municipal enterprises, cooperatives, etc.). However, the use of concessions for the best markets threatens to fragment the rest of the municipal systems, rendering them less viable financially, with high cost and no clear possibilities for improvement. Table I-1 gives a breakdown of Argentina's urban population by type of service provider (for cities of 10,000 or more inhabitants), showing that while the majority of water and sanitation systems are still run by public enterprises (either provincial or municipal), the largest and most important of these systems are now under private management.

TABLE I-1 Estimated population breakdown by type of service provider ^{1/}

Type of entity	No. of entities	Number of localities	Population (%)
Provincial agency	11	69	12
Autonomous provincial enterprise	1	7	2
Private company	9	79	63
Municipal agency	97	97	17
Cooperative	36	36	6
TOTAL	154	288	100

^{1/} Localities with 10,000 or more inhabitants.

- 1.5 Cooperatives constitute one of the most popular types of service provider, particularly in localities with fewer than 10,000 inhabitants. These institutions are governed by the provisions of the Cooperatives Act (Law 20.337 of May 2, 1973) which defines them as private law entities established to organize and provide services for members on a mutual self-assistance basis. The highest executive body in a cooperative is its board of directors,

^{2/} Argentina is organized as a federal republic made up of 23 provinces plus the city of Buenos Aires. Its current population is approximately 34.3 million, of which nearly 30 million (87%) live in urban areas. Some 33% of all Argentines live within the Metropolitan Buenos Aires area.

whose members are elected in a general assembly. The breakdown of cooperatives by size is presented in Table I-2.

TABLE I-2 Number of cooperatives in each size category

Size category (Number of inhabitants)	Number of cooperatives
50,000 or more	2
10,000 to 50,000	34
5,000 to 10,000	61
2,000 to 5,000	232
TOTAL	329

- 1.6 Many of these cooperatives were organized spontaneously by the inhabitants of a city or town who turned to this type of institution in the absence of service provided by the state. In provinces which were formerly national territories (such as La Pampa and Chubut), cooperatives existed prior to the creation of municipalities. As a result, concession contracts between newly formed municipalities and cooperatives often do not cover adequately the rights and obligations of each of the parties, and in some cases, cooperatives are not made subject to the provincial regulatory authority. Given the lack of centralized data on the sector, it is not possible to evaluate the degree of efficiency with which cooperatives are providing services at present, although the largest of them are thought to be well organized in general. It should be noted that a large number of cooperatives operate other utility services (such as electricity and street lighting) as well as water and sanitation, enabling them to enjoy significant economies of scale in terms of administration and combined billing operations.
- 1.7 The sector is organized nationally in accordance with the recently enacted Decree 146/98 of January 30, 1998, which names the Ministry of Natural Resources and Sustainable Development, reporting to the Executive Office of the President, as the central authority responsible for coordination of planning, programming, execution, evaluation and management of sanitation works in Argentina. The National Board of Water and Sanitation Works (ENOHSA), created in 1995 as a restructuring of the former Federal Water and Sanitation Authority (COFAPYS), is the agency charged with promoting, financing, managing and overseeing programs to strengthen the sector, transform service providers, and construct works to rehabilitate and expand the various systems. ENOHSA now employs 69 officials and administers sector projects financed by the multilateral lending agencies.

B. Coverage and the need for investment

- 1.8 Despite the national government's policy of transferring investment responsibilities to the private sector using the concession model, difficulties in securing long-term financing for the upgrading and expansion plans normally included in concession contracts have caused delays in their implementation. The government is therefore inviting the multilateral agencies to take part in financing such investments.
- 1.9 For their part, the provincial and municipal enterprises and cooperatives continue to face financial obstacles when attempting to satisfy their own expansion needs. Estimates of the population served by the nation's water systems indicate that approximately 7 million urban inhabitants live in homes that are still not hooked up to the public water supply system. The levels of coverage shown in Table I-3 are relatively low, with the result that Argentina is below the 84% average for urban areas in Latin America. It should be noted, however, that variations between the provinces are substantial, with (for example) low levels of access in the provinces of Misiones (69%) and Buenos Aires (70%), and higher levels in Mendoza (95%), Jujuy (96%), Chubut (97%), and Santa Cruz (97%).
- 1.10 The proportion of inhabitants with access to sewer systems varies by both region and size of locality. There are provinces below the 40% mark (such as San Juan, La Rioja, Córdoba, Santiago del Estero, Chaco, Formosa and Misiones) and others with relatively high levels of coverage, such as Jujuy (84%), Salta (74%) and Tierra del Fuego (84%). In terms of size of locality, the lowest percentages are generally found in the smaller localities. In localities with fewer than 10,000 inhabitants, for instance, coverage averages 15%, while in cities of over 50,000, the average exceeds 50%.

TABLE I-3 Increase in water and sanitation coverage
(percentage)

Year	Water system		Sewer system	
	Urban	Total	Urban	Total
1980	67	57	35	29
1987	67	59	39	33
1991	77	71	40	35
1996 <u>a/</u>	81	-	51	-

a/ Estimated

- 1.11 In addition to low levels of coverage, the sector also suffers from high per capita water consumption, estimated at 488 liters per day

in urban areas. ^{3/} This high level of consumption is no doubt related to the relative absence of residential meters in Argentina, together with water rates that do not reflect the true cost of service. ^{4/} These factors are indicative in general of the limited administrative, operational, and business management capacity of public enterprises in this sector. The business deficiencies can be seen as well in the sector's low collection rates, which have adversely affected the financial capacity of these companies.

- 1.12 The national government tentatively estimates that investments on the order of US\$1.090 billion will be required to extend water supply coverage to the 90% mark, and another US\$1.780 billion to ensure that 80% of the population is either connected to public sewerage facilities or equipped with septic tanks (not including treatment costs). It is estimated further that US\$1.120 billion will be needed to rehabilitate and modernize the sector's present physical infrastructure, plus US\$290 million to strengthen water and sanitation service providers. Based on the concessions already awarded or in process, over half of the required investments will come from the private sector.

C. Regulatory systems for the sector

- 1.13 In conjunction with the processes above, regulatory agencies were created for Metropolitan Buenos Aires and in the provinces where concessions have been awarded for these services. However, most of these new agencies have weaknesses and deficiencies that reduce the economic and social sustainability of the new system. Unlike the success achieved in awarding concessions, the establishment of regulatory frameworks and agencies accepted and recognized by political institutions, service providers, and consumers has been difficult and slow, requiring significant effort and support. Moreover, the wide range of institutional schemes used has given rise to ambiguities concerning the role of the provinces and municipalities. The provincial agencies often mix regulatory functions with operational functions in areas not covered by the concessions, in some cases undermining their ability to ensure water quality and settle interjurisdictional conflicts. In other cases, the regulatory agencies limit themselves to legal matters and contract enforcement, with no capacity for acting as an effective counterpart in the regulation and operation of the service.

^{3/} Average consumption for Latin America as a whole is approximately 200 liters per day, without including water unaccounted for.

^{4/} According to a study conducted by the Sistema Permanente de Información de Saneamiento [Permanent Sanitation Information System] (SPIDES) in 12 of the country's provinces, the percentage of homes with household meters was 18.5%.

- 1.14 It should be noted as well that the type of concession contract used in most cases introduces factors significantly affecting the regulatory process. The most important of these are: (i) the authority granting the concession is ipso facto, a party to the contract and therefore responsible for renegotiating and verifying compliance with its provisions; the role of the regulatory agencies is thus limited to that of technical adviser, to the granting authority, with limited powers to monitor the sector and impose penalties; (ii) the independence of regulatory agencies is not wholly practical under these circumstances, nor is it simply a matter of training or the technical level of officials; and (iii) since the authority granting the concession is the contractual counterpart and in charge of any renegotiations, the system is highly dependent on political changes and subject to intervention from the provincial legislature. The need to strengthen the entire regulatory system has therefore been identified as a top priority for the sector's development. A technical cooperation operation, to be carried out in parallel with the present program, using MIF resources, is proposed for this purpose.

D. Environmental aspects

- 1.15 Argentina's political, legal, and institutional framework for dealing with environmental matters is plagued by overlap, poor coordination, and ineffective enforcement of existing laws and regulations at the federal as well as provincial and municipal levels - although some of the provincial administrations are exceptions.
- 1.16 The advent of federalism has resulted in three levels of government with fragmented jurisdiction over natural resources and a lack of coordination in regulatory enforcement. Under the Argentine Constitution, all authority not delegated to the national administration is reserved for the provinces. The provinces retain legislative and executive powers, and municipalities receive a major share of authority over environmental management and control.
- 1.17 A vital step forward was taken at the national level with the creation of the Ministry of Natural Resources and Human Environment in 1991, restructured as the Ministry of Natural Resources and Sustainable Development (SRN) in January 1998. The SRN reports directly to the General Secretariat under the Executive Office of the Presidency of the Republic, and has four principal divisions: Water Resources, Environmental Management, Sustainable Development, and Coordination. ENOHSA, the executing agency for this operation, is a decentralized unit under the SRN's Water Resources Division. While Argentina's Constitution does not explicitly require environmental impact assessments (EIAs), its Article 41 does guarantee the right of all Argentines to a healthy environment, under balanced conditions propitious for human development and productive activities that satisfy present needs without

compromising future generations. It also creates the obligation for authorities to provide environmental information.

- 1.18 The Bank is currently contributing to the SRN's institutional development through a loan for the Environmental Institutional Development Program (loans 768/OC-AR and 907/SF-AR), which includes a demonstrator subprogram for the prevention and control of environmental impairment. The aim of this component is to institutionalize a national system of environmental control and procedures for evaluating projects and conducting environmental impact studies.

E. The Bank's experience in Argentina

- 1.19 The Bank has helped finance projects in the water and sanitation sector by granting 13 loans totalling the equivalent of US\$745.2 million. Loans for localities with fewer than 15,000 inhabitants total US\$377.2 million, carried out in six stages and concentrating on water supply. Since execution began in 1965, these operations have built more than 780 public water supply systems. It is only in the sixth and final stage that projects for collection and treatment of wastewater have been added.
- 1.20 A total of US\$368 million in loans has been provided for localities with more than 15,000 inhabitants. Work is currently under way on the National Water and Sewerage Program (PRONAPAC) (loans 621/CO and 855/SF). The estimated cost is US\$250 million, of which the Bank is financing US\$100 million. This program, approved in 1991 and declared eligible for disbursements in 1993, is being carried out by ENOHSA with US\$100 million in cofinancing from the World Bank (later reduced to US\$64 million). Its objectives are to improve operating efficiency, along with the coverage and quality of services. The program has also provided support for the administrative decentralization of these services.
- 1.21 Under the PRONAPAC program, IDB resources have been lent to 16 operating companies for institutional reform, operational improvements and systems rehabilitation and expansion. 5/ Disbursements under the program have reached the 90% level, and all remaining resources are now committed. The components financed by the World Bank show a lower disbursement level: approximately 70%. With that exception, the program is proceeding at a normal pace, and 100% of the IDB funding should be disbursed by the third quarter of 1998. The resources of this program have been used to install household and master metering systems, control water losses, update system registers, rehabilitate systems damaged by natural phenomena, purchase equipment for operations and maintenance, and conduct institutional and environmental studies.

5/ The 16 companies include 7 cooperatives, 5 provincial agencies, 3 municipal entities and 1 private concessionaire.

Progress has been made as well in preparing projects for financing under the program proposed here.

- 1.22 The sixth stage of the Rural Water Supply Program (loan 857/OC for US\$200 million) was approved in December 1994 and declared eligible for disbursements in August 1996. It is currently being carried out by ENOHSA at a relatively rapid pace, with disbursements close to 36%. Virtually all of the program's resources are already committed, with 90% of them allocated to the rehabilitation and expansion of systems operated by cooperatives.
- 1.23 With a view to learning lessons that may be useful in carrying out the new operation, ENOHSA has reviewed the PRONAPAC program and the six stages conducted for localities of less than 15,000. This review has revealed the need to: (i) substantially upgrade the system for compiling and processing information so that the operational improvements expected of subborrowers can be monitored more closely; (ii) create temporary executing units within the subborrowers to ensure smooth project operation and strict compliance with the proposed objectives; and (iii) introduce conditionalities requiring subborrowers to take measures to improve the company's overall performance and increase the benefit derived from project investments. This review has also shown the Bank's participation to be beneficial in facilitating subborrowers' acceptance of structural changes in their service operations.
- 1.24 As well as the global loans described above, the Bank has provided support for modernization of the sector through technical cooperation and direct loans to private concessionaires. In December 1996, the Bank's Private Sector Department granted two loans totalling US\$85 million to the provincial water company of Santa Fe. Again, in 1994, 1997, and 1998, operations designed to strengthen the systems for regulating the sector were approved for the provinces of Mendoza, Santa Fe, and Buenos Aires respectively, using resources from the MIF. The project to strengthen the regulatory framework in Mendoza has been completed and initial results are satisfactory. Other programs financed by the Bank in the areas of flood control and sanitation have included the Reconquista River Basin Program (1993), the Matanza-Riachuelo Water Basin Environmental Management Program (1997), and the Water Supply Program for the Eastern Zone of Buenos Aires (1988).

F. Strategy and rationale for IDB participation

- 1.25 The Bank's operating strategy in Argentina places priority on the following areas: (i) continuation and consolidation of progress towards modernizing the state; (ii) reduction of poverty and improvement of living standards; and (iii) improvements in the productivity and competitive position of national producers. The proposed program is consistent with this strategy because it would: (i) promote more efficient and self-sustaining water supply and sanitation services; (ii) introduce mechanisms for attracting

private sector participation; and (iii) finance investments in the rehabilitation and expansion of sanitation services, improving the quality of life - particularly for low-income population segments. The Bank's participation in this program will not only help in developing a mechanism for private bank involvement, but will also ensure an emphasis on the institutional strengthening of service providers and regulatory agencies.

G. Parallel financing from the World Bank

- 1.26 The World Bank is currently preparing a parallel operation for a total of approximately US\$290 million (including a loan of US\$162.5 million), for which ENOHSA will also be the executing agency. Loans would be granted to existing or prospective private concessionaires to finance 60% of their investment plans in the first five years of operation. The initial terms and conditions of financing are being reviewed to bring them into line with those proposed in this document, insofar as possible. The program will also finance projects submitted by the larger cooperatives. Some 20 projects have been identified on a preliminary basis which, if all were to receive financing, would absorb all of the available resources. The program will help to meet the major investment needs identified at the national level (see paragraph 1.12).

H. The proposed program

- 1.27 In order to provide the strongest possible support for modernization of the sector and promote greater participation by private enterprise in service delivery and investment financing, this new operation would develop a cofinancing scheme to attract and channel private capital into the sector. This objective is of vital importance given the scale of the investment needs identified at the national level and the evident lack of counterpart resources. The extent to which private capital will become available for the program will depend on assessments of business efficiency and inherent risk.
- 1.28 Accordingly, the proposed operation has been structured so that large-scale projects and those undertaken by financially self-supporting enterprises would be funded through a trust administered by a private bank. The IDB loan would be channeled through this mechanism, so as to encourage private bank cofinancing, as explained in chapters II and III. Projects proposed by smaller companies, which are correspondingly smaller in scale and less attractive to private lenders - will have the option of applying under a substantially similar mechanism administered by the Banco de la Nación Argentina (BNA), a public institution that is well-represented in the provinces. Finally, projects submitted by enterprises not financially viable or creditworthy enough to obtain commercial loans will be handled directly by the program's executing agency so as to provide the institutional strengthening and development they need as quickly as possible.

- 1.29 The system proposed here is seen as an important advance over traditional financing schemes. If carried out successfully, it would maximize the development impact for the sector and represent substantial progress toward a wholesaling system. But it also represents a major challenge given the financial weakness of most Argentine water and sanitation companies. The combination of the three financing windows is expected to provide sufficient incentives for less creditworthy enterprises to improve their self-sufficiency and get the credit they need to expand. The system proposed could also be expanded to tap into capital markets by issuing bonds, thus extending repayment over a longer period and diversifying the risk. Such a mechanism could be included in a future operation, and will be the focus of a specific study to be financed under the MIF technical cooperation.

II. THE PROGRAM

A. Objective

- 2.1 The main objective of the program is to support the process of sector reform and promote private sector participation in both service delivery and investment financing. The following specific objectives are proposed: (i) to improve the efficiency and quality of service; (ii) to ensure the long-term self-sustainability of the enterprises concerned; (iii) to strengthen regulatory capacity at the provincial level; and (iv) to improve access to service for broad segments of the population.
- 2.2 To accomplish these objectives, the program will employ commercial public and private cofinancing mechanisms in support of: (i) measures to improve the administrative, financial, commercial, and operational management of the enterprises concerned; (ii) institutional reform and restructuring activities, including those required to increase private sector participation; (iii) emergency, rehabilitation and improvement works on existing systems; (iv) works to expand drinking water supply and sewage collection systems; (v) works for the control of water pollution caused by the service; and (vi) measures to strengthen the capacity of the provincial regulatory agencies.

B. Description

- 2.3 The proposed operation will be executed by the Ente Nacional de Obras Hidricas de Saneamiento [National Board of Water and Sanitation Works] (ENOHSA) as a global multiple-works program, using credit mechanisms, with the participation of provincial or local service providers and regulatory agencies already established or being set up. Based on a preliminary estimate, between 80 and 100 localities will benefit from the program with services provided by cooperatives, municipal entities, provincial enterprises, semipublic corporations, or private concessions. As indicated in paragraph 1.28, the operation will consist of three complementary financing windows: (i) a trust administered by a private bank, which will provide a conduit for a portion of the loan resources and the cofinancing resources coming from commercial banks, mainly towards larger projects. (ii) a trust administered by the Banco de la Nación (BNA), which will channel another portion of the loan resources together with BNA's own cofinancing and resources from other financial institutions, mainly to smaller projects; and (iii) a window administered directly by ENOHSA, which will finance institutional restructuring and improvement projects for enterprises not yet in a position to obtain commercial credit. These three lines of financing are explained below.

1. Service expansion projects

a. Trust administered by a private bank (window 1)

- 2.4 In view of the particular risk/return characteristics of investment in the sanitation sector, and the reticence of private banks to participate individually, it is proposed that an autonomous system of credit allocation be set up so as to attract resources from private banks and centralize lending decision making within the financial institutions prepared to assume the risks entailed. To implement this strategy, a trust will be set up for the use of the loan resources in such a way as to encourage the additional participation of private banks in cofinancing projects submitted by financially viable enterprises.
- 2.5 The resources of the trust will be administered by a private bank selected by means of a competitive process. The bank administering the trust will follow guidelines set forth in the credit regulations previously agreed upon with government authorities (see paragraph 3.23). For each lending operation directed towards enterprises in the sector, the IDB loan resources will constitute Loan A, which will be used to finance up to 40% of the investment. These resources will be supplemented by Loan B, consisting of the commercial bank resources, and by the counterpart funds to be contributed by the enterprises concerned. In most cases, the counterpart will cover about 30% of total project costs.
- 2.6 The terms for the B loans will be determined on the basis of commercial bank risk analyses of each enterprise. The lending terms for trust resources (the A loans) will be uniform for all of the projects and will be determined on the basis a detailed market analysis, as explained in paragraph 3.19. The amortization period will be up to 15 years to encourage the participation of private banks.
- 2.7 Aside from introducing financial discipline and generating additional resources for investment in the sector, the proposed cofinancing mechanism is designed to: (i) reduce the perception of regulatory and political risk; (ii) encourage private banks to provide broader terms; and (iii) expand, accordingly, the range of projects that will have access to the cofinancing mechanism.

b. Trust administered by the Banco de la Nación (window 2)

- 2.8 Projects undertaken by smaller enterprises, involving smaller amounts (US\$7.5 million at most) less attractive to private banks will have the option of resorting to a trust administered by the Banco de la Nación Argentina (BNA). The resources from this trust (the A loans) will come from the IDB loan. They will also be used to finance up to 40% of the required investment in each project and will be supplemented with the company counterpart funds (30%) and the BNA cofinancing (the B loans).

- 2.9 The terms for Loan B will be determined on the basis of a risk analysis of each participating company to be conducted by BNA. The terms for Loan A will be the same as for window 1 (see paragraph 3.19).

2. Institutional restructuring and improvement projects (window 3)

- 2.10 Companies, agencies, or cooperatives lacking access to commercial credit because of their precarious situation can go directly to ENOHSA to obtain financing for their institutional restructuring and/or operational improvements. A specific institutional and financial analysis will determine whether the enterprise: (i) requires action to improve its financial, commercial, and operating efficiency; or (ii) should be institutionally restructured to ensure a minimum level of self-sustainability. In the latter case, the possible approaches to be considered will include private sector participation through concessions, management contracts, outsourcing, etc.
- 2.11 In principle, under the financing matrix for the operation, 50% of the project cost would be eligible for financing. However, this percentage could rise to the degree that the windows described above are able to attract additional resources and thus enable the IDB to reduce its participation in the commercially viable projects (loan A). That would free up resources which could then be transferred to this window and allow projects for commercial, financial, and operational improvement, or business restructuring, to receive up to 80% financing, since the pari passu for the program would be maintained.
- 2.12 This window will be used to finance the studies and activities necessary to: improve the register of customers, collection levels, asset valuation, and accounting systems; establish new rate systems; restructure the operational personnel; and invest in emergency works (thereby reducing risks to the enterprise's institutional stability). Financing will also be provided to purchase and install household and master metering equipment. The project must be fully justified and aimed at results clearly benefitting the quality of service and/or operations.
- 2.13 Financing from this window will also be used to prepare and/or supplement the engineering, economic, environmental, financial, and institutional studies required to prepare projects under the program and to constitute and begin administering the trusts. Finally, provinces or municipalities may request ENOHSA financing to strengthen their regulatory capacity, as a complement to the technical cooperation resources described below.

C. Technical cooperation (MIF)

- 2.14 Given the importance of state regulation, and in view of the problem areas observed in the regulatory agencies concerned, the

program would seek to help strengthen existing agencies or establish new ones where they do not exist. The main activities to be covered by this financing include: (i) developmental methodologies and models for economic regulation, particularly as regards rate structures; (ii) development of regulatory information methodologies, and systems; (iii) support for the regulatory agencies in the form of medium-term "shadow management" consultancies and cooperation agreements with other regulators (national and in other countries); (iv) staff training with emphasis on the introduction of economic regulatory methodologies and procedures and means to reduce information asymmetries; (v) development of mechanisms for consumer participation; (vi) promotion of alternative dispute settlement and arbitration mechanisms; (vii) evaluation of a broader mechanism for attracting private capital with which to finance investment in the sector (viii) development of model legal documents and instruments to help companies gain access to the banking credit system. Needs in terms of environmental monitoring and control will also be evaluated in coordination with provincial environmental agencies. These activities will be financed as a complement to the program described through a US\$4 million MIF technical cooperation operation. The MIF will finance 47.5% of the costs involved.

- 2.15 Overall, the program seeks to encourage continued progress towards higher levels of efficiency in service delivery and will explore various means of increasing private sector participation in cases where required by the existing institution. The possibilities in this area range from outsourcing and management contracts to concession arrangements. The mechanism applied will depend on the characteristics of the service and the size and location of each participating city. In the case of smaller systems, for instance, consideration will be given to service contracts, including contracts for technical assistance in the operational area concerned. The program will finance the preparation of documents required to attract private sector participation, such as bidding specifications and concession contracts. These activities will be individually financed through the MIF's line of activity for concessions.

D. Cost

- 2.16 The total cost of the program is estimated at US\$570.6 million equivalent, including the portion to be covered by commercial banks. Table 2.1 was prepared on the cofinancing arrangement proposed. It should be noted that the allocation of resources among the three windows is flexible and will be reviewed periodically (see paragraph 3.52).

Table 2.1				
Total cost and financing plan (millions of US\$)				
Investment category	IDB	Counterpart	Total	%
1. Credit				
1.1 Expansion projects	200.0	300.0	500.0	87.6
a. Private bank — administered trust	100.0	150.0 <u>a/</u>	250.0	43.8
b. BNA — administered trust	100.0	150.0 <u>a/</u>	250.0	43.8
1.2 Reform, institutional strengthening, improvement, rehabilitation, and studies.	47.5	20.6	68.1	11.9
2. Inspection and supervision	2.5	-	2.5	0.5
Total	250.0	320.6	570.6	100.0
Percentage	43.8	56.2	100.0	

a/ Includes commercial bank cofinancing and counterpart funding from the enterprises.

III. EXECUTION OF THE PROGRAM

A. Executing agency

- 3.1 The program will be executed by the National Board of Water and Sanitation Works (ENOHSA), an agency attached to the Ministry of Natural Resources and Sustainable Development under the Executive Office of the President of Argentina. The government will transfer the resources from the loan to ENOHSA under the same financial terms as set out in the loan contract. The MIF resources for the regulatory agency support component will be transferred in nonreimbursable form.
- 3.2 ENOHSA will be responsible for granting subloans directly to enterprises and agencies requiring institutional strengthening and/or restructuring, and for transferring resources to: (i) the private bank administering the trust for larger companies; and (ii) the Banco de la Nación Argentina (BNA) for the smaller enterprises. This private bank and the BNA will thus become subexecuting agencies for the program.

B. Institutions eligible to receive financing

- 3.3 Eligible borrowers will include:
- a. Water and sanitation service providers in the following categories:
 - (i) provincial or municipal public enterprises;
 - (ii) private and public corporations;
 - (iii) cooperatives; and
 - (iv) private concessionaires.
 - b. Provincial or municipal governments can apply for financing to establish or reinforce regulatory agencies in the sanitation sector and to provide support for the privatization process.
 - c. Organizations belonging to provincial or municipal administrations which have agreed to undertake autonomous operations and/or to begin moving towards private-sector delivery of services.

C. Trust administered by the private bank (window 1)

- 3.4 As explained in previous chapters, enterprises qualifying for commercial credit must apply for expansion financing through the private-bank administered trust. The initial allocation of IDB resources to this trust will be in the amount of US\$100 million. Resources from the trust (Loan A) may be used to finance up to 40%

of the total cost of a project, and must be supplemented with commercial bank resources (B Loans) to be eligible for cofinancing.

- 3.5 It is recommended that the capital put up by companies submitting projects to the trust should represent at least 30% of the project cost. Lesser amounts could be accepted provided the company demonstrates conclusively its capacity to bear the resulting higher level of debt.
- 3.6 The guarantees required under Loans A and B will depend primarily on whether the borrower is a public or private enterprise. In the case of public sector enterprises, A Loans will be guaranteed through federal coparticipation, as required for the transfer of resources to provincial and municipal entities. For B Loans made to public sector entities, this coparticipation will be limited to coverage of sovereign risk. 6/ In the case of loans granted to private sector concessionaires and cooperatives, the guarantee package for each operation will be negotiated and established jointly between the private bank administering the trust (trustee), the cofinancing institution, and the borrower. Both A and B Loans will have a cross-default clause, as well as a requirement that all other guarantees be on an equal footing. In the cofinancing agreement, the trustee and cofinancing institution will establish the terms and conditions under which these provisions are to be executed.
- 3.7 The guarantee package will be based on a risk analysis carried out for each project, and must seek to minimize the risks identified. Among the main risks to consider are those deriving from political or regulatory decisions, market risks, and those arising under concession contracts. The program as a whole will help to limit the overall risks primarily through activities designed to strengthen the sector's regulatory agencies.
- 3.8 Companies that require financing must submit a loan application either to a potential cofinancing bank or directly to the trustee. The trustee and the co-financing institution will study the feasibility of the project and jointly determine the advisability of assuming the credit risk inherent in the operation. If an application is submitted directly to it, the trustee may simultaneously assume the role of cofinancing bank or lead bank for a syndicate of cofinancing institutions. Alternatively, it may suggest that the prospective borrower apply directly to commercial banks for the B Loan. The program's executing agency, ENOHSA, may object to the decision to grant financing only on fully justified grounds, referring primarily to regulatory, environmental, or

6/ The purpose of political (or regulatory) risk coverage is to minimize the occurrence of events that by unilaterally modifying preestablished agreements or regulations, may affect the capacity of the borrowing companies to service their debts to third parties.

technical aspects, and with the concurrence of the IDB. Otherwise it will issue its nonobjection.

- 3.9 The maximum amount that may be lent by the trust (Loan A) to an individual borrower may not exceed US\$20 million without the prior approval of the IDB. This limit will enable the Bank to decide whether a project of this magnitude should be processed through the proposed program or, conversely, should be given individualized treatment.
- 3.10 The trustee will sign the corresponding contracts for Loans A and B, to be covered by the respective guarantees. The trust will be the lender-of-record for both loans. Loan certificates will be issued by the trustee to document B Loans.
- 3.11 The trustee will be paid a fee for the analysis of each operation, based on a percentage of the project's cost, in proportional amounts as the loan is recovered. This fee will be negotiated with the bank that submits the winning proposal to the trust. In addition, the winning bank will be reimbursed for all operating costs incurred in administering the trust.
- 3.12 The bank administering the trust will adhere to the Regulations Governing Administration of the Trust set out in section G, which will be stipulated in its Credit Regulations.

D. Trust administered by the Banco de la Nación (window 2)

- 3.13 Smaller projects (those requiring less than US\$7.5 million) submitted by financially viable companies will have the option of applying for financing to the trust administered by the Banco de la Nación Argentina (BNA). The initial allocation of resources to this trust will also be in the amount of US\$100 million, drawn from the IDB loan. The resources of the trust (Loan A) may be used to finance up to 40% of the total cost of projects and must be supplemented with resources from the BNA (Loan B) and by the counterpart funds from the enterprises. As in the case of the window mentioned above, it is recommended that the capital put up by each enterprise be equal to or greater than 30% of total project cost. Lesser amounts may be accepted provided the company demonstrates conclusively its capacity to bear the resulting higher level of debt. No borrower will be allowed to apply for a new financing while executing a project previously financed by either of the trusts if the total cost of the projects exceeds US\$7.5 million.
- 3.14 Companies requiring funds will submit a loan application to the BNA, which will assess the feasibility of the project and determine the advisability of assuming the credit risk inherent in the operation. ENOHSA may object to the decision to grant financing only on fully justified grounds and with the concurrence of the Bank. Otherwise it will issue its nonobjection. The guarantees

required for Loans A and B will follow similar guidelines to those for window 1.

- 3.15 The BNA will be paid for its analysis of each operation by means of a fee for each loan granted, equivalent to a percentage of the project's total cost. In addition, it will be reimbursed for all operating costs incurred in administering the trust. The BNA will operate in accordance with the Regulations Governing Administration of the Trust set out in section G, which will be stipulated in its Credit Regulations.

E. Financing for institutional restructuring and improvement projects
(window 3)

- 3.16 ENOHSA will directly handle companies, agencies or cooperatives which are unable to obtain commercial credit to finance investments because of their precarious financial situation. 1/ Following an institutional and financial analysis of each applicant, and based on the provisions set out in the program's Operating Regulations, ENOHSA will determine whether the enterprise requires action to improve its financial, commercial, and operating efficiency; or whether it should be institutionally restructured to ensure a minimum level of self-sustainability. In either case, the entities must undertake to meet interim efficiency and institutional-restructuring targets to ensure that they are on track to financial self-sufficiency.

- 3.17 The subloans granted directly by ENOHSA will therefore be both subject to numerous conditions and closely supervised. They will be released in stages to ensure adequate monitoring and tight control. Before each stage can be approved, the respective entity must meet interim restructuring targets and/or achieve specified levels of operating and business efficiency (see paragraphs 3.28-3.39). In addition to institutional and operational strengthening activities, in some cases a limited amount of expansion works will have to be financed to encourage companies to participate in the program. In no case may the expansion component of a project be allowed to exceed US\$2 million.

F. Financial conditions for the transfer of resources

- 3.18 To ensure consistency within the program, simplify execution, and avoid differences between the three financing windows during the initial execution period, it is considered advisable to standardize the financial conditions for transferring resources from the Bank loan to the end borrowers. Standardization will also prevent excessively difficult terms from being imposed on smaller and

1/ For operational reasons, the executing agency could arrange for the transfer of resources allocated to this window through the Banco de la Nación.

geographically remote companies which, because they do not enjoy economies of scale in either construction projects or the administration of their service, face higher costs, less favorable circumstances, and a smaller economic base. It will also avoid the pitfalls of differential treatment of public enterprises and private concessions, inasmuch as the public companies are required by government rules to be backed by federal coparticipation.

- 3.19 For the same reasons, the interest rate on loans granted by all three windows and financed with Bank resources during the first year of operations will be the same, and has been determined on the basis of rates recently charged by private and multilateral banks for loans to companies or concessionaires in this sector in Argentina. This rate is equivalent to the 180-day LIBOR rate, plus a margin of 350 basis points. The rate will be adjusted semiannually for new loans based on the above criteria. However, the annual adjustments referred to in paragraph 3.52 will be made gradually so as to reflect the market conditions that would apply to each participating enterprise.
- 3.20 Given the long service life of most of the works to be financed, and the need to spread investment recovery over prolonged periods of time, the amortization period on loans will be determined on the basis of borrower's cash flow and may be up to 15 years, including the respective grace period.
- 3.21 The financial terms and conditions of the B loans will be based on an analysis of each project submitted. The cofinancing banks will have exclusive responsibility for determining them within the pre-agreed limits set out in the respective administrative regulations. This will give commercial banks complete independence within the parameters established in the regulations.

G. Operating regulations

- 3.22 The program's operating regulations are divided into three sections corresponding to the three windows. Despite this functional division, the regulations will ensure the integrity and consistency of the program's objectives and permit a certain degree of flexibility in resource allocation and loan processing. The flexibility relates mainly to: (i) Alternative processing of projects through windows 1 and 2 when the corresponding loan applications have been denied by one of the other windows - with nonobjection from the Bank required in the case of projects to be financed in excess of US\$7.5 million through window 2; (ii) the transfer of funds from one trust to another to ensure use of the program resources within the agreed time frame for execution and to permit the physical initiation of works; and (iii) unless agreed to in advance, it has been decided that fund transfers between trusts will not take place during the first 12 months of operation of the trust administered by the private bank. The approval by ENOHSA of

the final version of these regulations will be a condition precedent to the first disbursement under the operation (see conditions precedent). The main features of the document are described below.

1. Service expansion projects

- 3.23 The credit regulations for the two trusts will establish guidelines for the granting of loans (Loan A) by the trustee bank. Among other conditions, the regulations will specify: (i) the types of projects that will be eligible; (ii) the terms of subloans A and B; (iii) the maximum amounts for specific operations; (iv) the guarantees required; (v) the duties and obligations of trustee, cofinancing institution, and borrower; (vi) the procedure for approving loans; (vii) information requirements and audit system; (viii) the fees to be received by the trustee bank; and (ix) the costs incurred by the trust. The trust will have a duration of up to 30 years reckoned from the date of its creation.
- 3.24 As a condition precedent to the first disbursement from each trust, it must be demonstrated that the trust concerned has been set up and the respective administration contract has been signed. In addition, as a condition for the first disbursement from the trust administered by Banco de la Nación, the competitive process for selecting the private bank to administer the other trust must have been initiated (see contractual conditions).

2. Institutional strengthening and restructuring projects

- 3.25 The regulations for this window will establish guidelines under which loans are to be granted directly by ENOHSA. They will identify eligible activities, and terms and conditions for the transfer of resources, as well as specifying the technical, economic, environmental, financial and institutional criteria that projects must meet in order to qualify for such loans. The following section provides additional details on the operational benchmarks to be used in monitoring the progress of the companies.

3. Financial and operational indicators

- 3.26 The present program seeks to strengthen water and sanitation service providers and help them become financially self-sufficient – and to do so within a reasonable period. For the purposes of the program, financial self-sufficiency means sufficient operating income to cover all operating and financial expenses (including depreciation) and generate a net profit as an incentive for private sector participation. It also means sufficient internal resources to service all debt and finance a certain amount of expansion, as well as a level of efficiency in bill collection ensuring sufficient resources to meet the goals listed above. The financial

indicators for measuring progress toward greater efficiency are described below. 8/

a. Collections efficiency

- 3.27 Inefficient bill collection is a widespread hindrance to the development and self-sufficiency of enterprises in this sector. The goal is an annual collection rate of 85% of amounts due. Amounts due is understood to include accounts receivable for services at the start of the year, plus billings during the year and minus amounts invoiced but not due at year-end.
- 3.28 Entities which do not meet this target at the time their loan applications are evaluated will be required to prepare a plan for improvement of their collections efficiency by stages, with target percentages that gradually rise to the 85% level over a period not to exceed three years. Entities whose collection rates are less than 65% at the time of application will only be eligible for the institutional strengthening component of the program.

b. Debt

- 3.29 Debt must be held to levels that can be serviced regularly with resources generated by the company's operations.
- 3.30 The best indicator for this purpose is the debt service coverage index, which must not be less than 1.3. This figure is calculated by dividing a company's internal cash generation for the year by the total amount required to service its long-term debt (interest and principal). This indicator must be projected over at least 10 years. Where it is less than 1.0, the company will have access to institutional strengthening resources only.
- 3.31 Where it is greater than 1.0 but less than 1.3 at the time a company's application is submitted, and the financial projections give no indication of any change in the near future, the company must implement an acceptable plan of action designed to achieve this target within no more than three years.
- 3.32 Financing for public or private companies should not be approved when they are past-due in their payment of financial obligations at the time such approval is sought.

8/ The use of financial and operational indicators also responds to the need to ensure closer monitoring of improvement within the enterprises, as recommended in the analysis of the earlier operations (see lessons learned, paragraph 1.23).

c. Economic viability

- 3.33 Public companies must produce profits equivalent to at least 6% of their net assets in order to attract private sector participation. Therefore, to receive financing for rehabilitation and improvement projects, public companies must have enough operating income to cover financial expenses and generate a net profit to provide returns on the institution's equity (see paragraphs 3.5 and 3.13). Cooperatives, which operate on a non-profit basis, will not be required to show a return on equity.

d. Capacity to generate counterpart funds

- 3.34 In order for companies to receive financing for works projects, it is recommended they be required to cover at least 10% of the cost of their annual works plan from internally generated resources. This percentage is in addition to VAT, which must also be covered by the institution (see paragraphs 3.5 and 3.13). In the case of cooperatives and corporations whose shares are held by the private sector, local counterpart funds may be financed through capital contributions from the partners or shareholders.

e. Water and sanitation rates

- 3.35 Companies will be required to establish rates making them financially self-sufficient. The rate schedule adopted must enable them to generate sufficient revenues to cover all operating expenses, including administration, operations, maintenance and depreciation. If the rates applied in accordance with the above do not generate sufficient resources to service all debt and finance 30% of the works project, then the measures necessary to achieve this goal will have to be taken.
- 3.36 In the case of cooperatives providing a variety of services, the financial indicators will be applied solely to their water and sanitation services, although an analysis will be made as well to verify that the cooperative as a whole is self-sufficient. Cooperatives found to be self-sufficient overall, but whose water and sanitation services do not measure up to the operational indicators, will be eligible for institutional strengthening activities only.

f. Other indicators

- 3.37 In addition to these financial indicators, there are a number of operational indicators that can be used to set goals for companies requiring institution-strengthening programs. The following indicators will be used for this purpose: (i) unaccounted-for water (physical and commercial losses); (ii) number of homes equipped with residential meters; (iii) per capita water consumption and production; and (iv) the number of employees per connection. Based on its analysis of each company, ENOHSA will

establish interim and ultimate targets for individual cases, within the parameters set out in the operating regulations for the program.

H. Representative sample of projects

- 3.38 ENOHSA has a database of 210 projects in the sanitation sector in various stages of preparation, representing US\$680.8 million in direct costs. The sample selected for the program is made up of 15 projects: two from companies eligible for the large project window, seven smaller projects, and six from enterprises that require institutional strengthening. Their (direct) costs total US\$64.13 million in all.
- 3.39 The direct costs and principal features of the projects are summarized in the following table:

Table 3.1

REPRESENTATIVE SAMPLE OF PROJECTS SELECTED FOR THE PROGRAM					
CITY	SERVICE PROVIDER	POPULATION	PROVINCE	TYPE OF PROJECT	COST OF PROJECT (US\$ million)
1. Large projects					
Corrientes Goya and others	Private concession	567,000	Corrientes	Improve ops., water and sewerage	24.15
Gran San Juan, Rawson, Bajo Segura and others	Provincial public agency	470,000	San Juan	Restructuring, Improve ops. and sewerage system	19.20
2. Small projects					
Coronda	Cooperative	14,000	Santa Fe	Water system	0.65
Rawson	Cooperative	25,000	Chubut	Water/sewera ge	5.80
Charata	Cooperative	17,800	Chaco	Sewerage system	3.57
Conesa	Cooperative	2,200	Buenos Aires	Sewerage system	1.50
Arroyo Dulce	Cooperative	1,800	Buenos Aires	Sewerage system	1.29
Olivera	Cooperative	2,100	Buenos Aires	Sewerage system	1.62
Huanguelen	Cooperative	5,300	Buenos Aires	Sewerage system	2.30
3. Institutional restructuring and improvement projects					
Trelew	Cooperative	95,000	Chubut	Improve ops.	0.96
Frias	Municipality	34,000	Santiago del Estero	Restructuring	1.14
Río Segundo	Municipal public agency	18,500	Córdoba	Restructuring	0.89
Ascención	Cooperative	3,900	Buenos Aires	Improve ops.	0.15
Pérez	Cooperative	19,000	Santa Fe	Improve ops.	0.79
L. N. Alem	Cooperative	18,000	Misiones	Improve ops.	0.12

I. Land, property rights, and easements

- 3.40 In general terms, the proposed projects do not entail any significant land use problems since a large proportion of the works involve the expansion of present water supply and sewage collection systems and will be carried out on public property without the need to expropriate land or arrange for easements. Many other investments are for the improvement and rehabilitation of existing facilities.
- 3.41 Notwithstanding the above, the works to be carried out under the program will require the purchase or expropriation of a few

additional properties and the establishment of easements. In these cases, procedures laid down in Argentine law will be followed and have proven adequate and sufficiently flexible in past programs. In all cases, companies must demonstrate that the land is available and the necessary easements have been authorized as a condition for project eligibility. Although in principle population resettlement is not anticipated, the policy established by the Bank will be followed should involuntary resettlement become necessary.

J. Execution period

- 3.42 The period for disbursement of program resources will be five years. This period is based on an analysis of projects in the sample and the operational improvements and/or institutional restructuring required by the participating companies. Institutional strengthening will probably be the most time-consuming activity owing to the large number of companies in this category. The deadline for physically initiating works projects under the program will be four years.

K. Recognition of prior expenditures

- 3.43 The executing agency has requested that the Bank recognize against the local counterpart expenditures incurred or to be incurred prior to approval of the loan, in an amount estimated at US\$1.76 million, for preparation and completion of studies and project planning. In addition, expenditures of up to US\$4.64 million equivalent may be recognized against the financing provided that the procedures accepted by the Bank have been followed. It is recommended that clauses be included in the contract authorizing such recognition.

L. Procurement of goods and services

- 3.44 For the procurement of equipment, materials, and other goods by the public sector companies, as well as works fully or partially financed with resources from the loan, international public bidding will be required for all amounts exceeding US\$350,000 equivalent in the case of goods, and US\$5 million equivalent in the case of construction services. These thresholds are based on experience with similar projects in Argentina, in which foreign bidders have only competed for contracts above the stated figures. In all other cases, the bidding can be limited to local firms.
- 3.45 For the consulting services, international public bidding will be required for all amounts in excess of US\$200,000. For smaller amounts, the procedures under national law will apply.
- 3.46 The contract for administration of the trust by a private bank will be awarded by means of private, competitive bidding, and all sufficiently qualified banks operating in Argentina will be invited to participate. The main qualification criteria include: (i) a rating of AA or higher; (ii) experience in project finance and

corporate finance; (iii) experience in trust management; (iv) an active presence in the provinces; and (v) a methodological proposal for managing the trust. The intermediation costs involved in administering the trust and the cofinancing commitments will be negotiated after selection of the best proposal.

- 3.47 The private sector companies will procure works and goods in accordance with market practices for the type of good or works concerned. The Bank will ensure that these procurements are effected at market prices, thus minimizing costs and ensuring that works suit the needs of the program.
- 3.48 Based on an analysis of the project sampling, it is estimated that the program will require approximately 85 contracts for works projects and 90 for the procurement of goods. For the larger projects, separate tenders will be called for the construction works and procurement of material and equipment. The tentative procurement schedule (see Annex III-1) has been drawn up based on the characteristics of the projects in the representative sample. This being a multiple-works program in which a variety of projects are to be carried out, the above-mentioned procurement schedule is simply an indication of the types of contracts to be let under the program.

M. Control and monitoring of the operation

- 3.49 To intensify efforts towards more efficient monitoring of the operation, ENOHSA will create an Institutional and Regulatory Unit whose main task will be to carry out internal checks to verify attainment of the objectives established for the various programs. The Ministry of Natural Resources has also proposed a system for monitoring and supervising progress under the program through the Undersecretariat for Coordination.
- 3.50 In view of the general lack of experience in the sanitation sector with the proposed cofinancing system, the distribution of resources among the three windows should be flexible. **It is recommended, therefore, that an evaluation of progress take place 12 months after the conditions precedent have been fulfilled and that annual reviews be conducted thereafter** (see contractual conditions). These periodic reviews will allow observation of the complementary action of the windows, and make it possible to introduce any changes required in resource allocation, monitoring procedures, and the financial terms applicable to the A loans. Steps will be taken to ensure that the interest rates for the A loans are adjusted gradually so as to reflect the market conditions that would apply to each participating enterprise.
- 3.51 Bank supervision of the international public bidding or other forms of procurement in amounts exceeding US\$5 million equivalent in the case of construction services and US\$350,000 equivalent in the case

of goods or services will be conducted as follows: (i) supervision of the first two bidding processes will be conducted ex-ante; and (ii) if the parties agree, the supervision of subsequent bidding processes may be conducted ex post.

N. Environmental aspects 9/

- 3.52 The environmental quality control methodology set out in the program's operating regulations, will be employed to assess possible impact and corrective treatment during preparation of works projects.
- 3.53 The program's environmental quality control system, based on ENOHSA's experience with Stage VI of PRONAPAC and published in October 1994, will allow adverse environmental effects to be identified at the beginning of project preparations and mitigating measures to be included in the bidding documents and applied during execution. This system begins by classifying projects into three categories, based on the nature, magnitude, and sensitivity of environmental problems and the need for additional environmental studies. Projects whose potentially adverse environmental effects can be reduced or prevented through proper construction, operation, and maintenance in accordance with sanitation engineering manuals or practices, are classified in Group I and authorized for execution and subsequent reporting to a provincial environmental control organization, or to ENOHSA where appropriate. For all other projects, the organizers will prepare an environmental brief indicating simple control and audit methods (Group II), or complex measures to be listed in a report on the environmental impact assessments (Group III). ENOHSA will be expected to revise these documents and issue a statement of nonobjection before the project receives financing.
- 3.54 Since the provincial ministries of environment in Córdoba and Mendoza are suitably equipped to carry out their tasks, ENOHSA need only review Group II and III projects in these provinces. Before beginning program execution ENOHSA must reach an agreement on the proposed procedures with the various provincial departments, and these must be reviewed annually in the light of changes in those agencies.

O. Ex post evaluation

- 3.55 Agreement was reached with ENOHSA for carrying out an ex post evaluation to analyze the efficiency and effectiveness of the program and make best use of the lessons learned. The information that must be gathered by the executing agency for purposes of this

9/ The Environmental and Social Impact Committee reviewed and approved the Environmental and Social Impact Report (ESIR) at its July 27, 1998, meeting.

evaluation is indicated in the Logical Framework (see Annex III-2). The costs for gathering and processing this information and conducting the evaluation will be borne by the executing agency.

IV. THE EXECUTING AGENCY

A. Background

- 4.1 ENOHSA was legally constituted in November 1995 to replace the COFAPYS, with a mandate to promote, supervise, and administer investment financing programs for water supply, sewage collection, and other community sanitation services promoting development and improving the quality of life. This agency has national-level responsibility for dealing with basic sanitation problems.
- 4.2 The Board currently administers four programs for basic sanitation investment and development: (i) Programa de Obras Menores [Small Works Program] (PROMES), financed with ENOHSA's own resources and limited to a maximum of US\$200,000 per project; (ii) stage VI of the IDB-supported Rural Water Supply Program (see paragraph 1.22); (iii) National Water and Sewerage Program (PRONAPAC), financed in part by the IDB and World Bank (see paragraphs 1.20 and 1.21); and (iv) Programa de Asistencia Social para la Provisión de Agua Potable y Saneamiento [Social Assistance Program for Water and Sanitation Services] (PASPAY), financed with resources from the Public Works Department of the Ministry of Economic Affairs.
- 4.3 It should be noted that ENOHSA assumed all of the commitments and responsibilities of the COFAPYS.

B. Organization

- 4.4 The agency's management has been entrusted with a controller, who has distributed its functions and responsibilities to the finance and technical departments and the underdepartment of administration. The controller receives support from an internal audits unit and an office of legal counsel.
- 4.5 There are four coordinating units responsible for executing ENOHSA's current programs. These units are temporary and will be disbanded once their respective programs have been completed. They receive support from the above-mentioned departments, and in particular from the technical department in analyzing requests for financing.
- 4.6 There are plans to set up an institutional and regulatory unit, which will play an important role in restructuring the sector. It will conduct an initial evaluation of the following service delivery conditions and procedures: (i) a regulatory framework in conformity with national policy guidelines; (ii) the distribution of regulatory and supervisory functions; and (iii) the existence and characteristics of rate-setting and household metering systems and a rate structure. It will be the duty of this unit to monitor the attainment of goals established for each project, both during

execution and after operation begins. It is recommended that as a condition precedent ENOHSA be required to demonstrate that this unit has been set up and appropriately staffed (see contractual conditions).

- 4.7 Every two years, this unit will obtain an external management audit of project execution and progress relative to targets. The cost will be paid with the IDB loan resources.

C. Personnel

- 4.8 ENOHSA is currently following a policy of reducing the size of its staff, which at present stands at 69 including those officials who will be assigned to the new Institutional and Regulatory Unit.

D. Internal audits

- 4.9 An Internal Audits Unit has been created as part of ENOHSA's internal control procedures, and reports directly to the institution's administrator.
- 4.10 Internal audits are carried out by a director of audits with support from an engineer, **two additional qualified professionals will be brought in** (see contractual conditions). Their role is to oversee management, verify the attainment of objectives under programs executed by ENOHSA, keep track of the loans, and maintain a constant check on the institution's budget performance.
- 4.11 To guide it in carrying out its mandate, the unit relies on the Law on Financial Administration and State Controls, the National Receiver's Office Manual, and auditing standards established by qualified bodies, such as the Ministry of Economic Affairs.

E. External audits

- 4.12 The financial statements of ENOHSA, PRONAPAC and stage VI of the Rural Water Supply Program for the years 1995 and 1996 have been audited by a firm of external auditors. Those corresponding to 1997 are being reviewed and awaiting an opinion by the Office of the Auditor General of Argentina. None of these auditors' opinions have noted any reservations with respect to ENOHSA or the above-mentioned programs.
- 4.13 It is recommended that annual financial statements on the program be required during the execution period, and for ENOHSA during the life of the loan, in both cases to be audited by a firm of external auditors or by the Auditor General of the Nation as agreed upon in due course with the Bank. The audit should include an ex post review, by sample, of the vouchers submitted in support of the disbursement requests.

F. Financial situation

1. Statements of financial position

- 4.14 As of December 31, 1997, ENOHSA had total assets of US\$327 million, with US\$286 million corresponding to its loan portfolio. The current portion of the latter stood at US\$49.5 million.
- 4.15 Analysis of the loan portfolio indicates that US\$2.9 million (1.2% of the total portfolio) was in arrears as of December 31, 1996 – less than 90 days in most cases. The rate of arrearages was low because when a loan became past due, ENOHSA was charging the amount owing directly against the national coparticipation resources used by the respective province to guarantee the operation. However, at the close of 1997, when past-due amounts totalled US\$20.4 million, the status of its portfolio deteriorated. (Although some 67% of the loans concerned were less than 90 days in arrears). It has since been verified that over the first quarter of 1998, arrearages have returned to normal levels.
- 4.16 In 1998, 50% of the repayments under the programs up to stage VI of the Rural Water Supply Program were covered out of the coparticipation resources. This stemmed from a variety of causes, as in the following examples: the province of Buenos Aires has used the mechanism to repay loans for works transferred to AGOSBA upon completion, with the province agreeing to assume the respective debt; the province of Santa Cruz requested that loan payments be deducted directly from the coparticipation; in Misiones, the province has taken over servicing of the loan as compensation for debts owing to the sanitation companies and cooperatives, and is using the coparticipation resources to repay ENOHSA. The financing scheme proposed for this program, through the trusts, will minimize the use of coparticipation as a normal means of payment.
- 4.17 ENOHSA's liabilities consist primarily of IDB and World Bank loans transferred to it by the federal government subject to the same financial conditions that applied to the original loans to Argentina. As of December 31, 1997, the balance owed to the federal government as a result of these transfers was US\$241.2 million.
- 4.18 The principal component of current liabilities consists of the outstanding portion of these transfers from the government, which at the close of 1997 totalled US\$19.6 million.
- 4.19 ENOHSA's capital as at December 31, 1997, stood at US\$85 million consisting of contributions from the National Treasury and net income from operations.

2. Financial performance statement

- 4.20 In 1996 and 1997, the first two fiscal years completed after the creation of ENOHSA, earnings generated by its loan portfolio were sufficient to cover financial and administrative expenses and yield returns of US\$3.4 million and US\$7.8 million, respectively.
- 4.21 In 1996, ENOHSA received a total of US\$25.3 million from the federal government, of which US\$10.6 million was transferred to the PASPAYS program. In 1997 these receipts came to US\$28.1 million with the transfers totalling US\$9.9 million.
- 4.22 In 1996 and 1997, ENOHSA enjoyed a currency exchange windfall from loans received in a basket of currencies. The amounts were US\$9.5 million and US\$7.6 million, respectively.
- 4.23 Overall, net income totalled US\$26.4 million in 1996 and US\$32.7 million in 1997.

3. Cash flow by source and application

- 4.24 ENOHSA's cash flow statement is summarized in the following table:

ENOHSA Cash flow statement (US\$'000)			
	Nov 27 to Dec 31, 1995	January 1 to Dec 31, 1996	January 1 to Dec 31, 1997
SOURCE			
<u>Internal</u>			
Profit	523	26,480	32,676
Income and expenditures not representing the movement of funds	<u>-1,063</u>	<u>-15,143</u>	<u>-19,897</u>
Total/internal sources	-540	11,337	12,779
<u>External</u>			
National Treasury	3,000	3,000	1,049
Capital contributions and other	41	2,149	98
Loan disbursements	2,719	56,509	79,258
Loan recoveries	<u>456</u>	<u>17,553</u>	<u>13,299</u>
Total/all sources	5,676	90,548	106,483
APPLICATION			
Loan disbursements	6,257	55,254	87,666
Loan repayments	17,771	20,889	19,823
Other applications	189	2,582	619
Total for applications	24,217	78,725	108,086
Surplus/deficit of funds	-18,541	11,823	-1,603

- 4.25 The main source of funds has been disbursements under foreign loans, which totalled US\$56 million in 1996 and US\$79 million in 1997. The increase in disbursements in 1997 (compared to 1996) is due primarily to acceleration in the execution of stage VI of the Rural Water Supply Program, for which disbursements in 1997 totalled US\$36 million, while those for PRONAPAC were US\$49 million – US\$10 million more than in 1996.
- 4.26 Loan recoveries in 1996 totalled US\$17.5 million, but then fell to US\$13.3 million in 1997, reflecting a rising rate of arrearages in the portfolio. Over the last two years, the level of recoveries has been less than repayments to the government, with the result that ENOHSA has had to draw on its internally generated resources.
- 4.27 Resource use has consisted principally of foreign loan resource disbursements.
- 4.28 ENOHSA's financial statements attest to sound financial administration of the resources it has received.

4. Banco de la Nación Argentina (BNA)

- 4.29 BNA will administer one of the trusts set up under the program, and has indicated its willingness to co-finance its trust in an amount initially estimated at US\$90 million, to be disbursed over a period of five years. Administration of the trust will be handled by a specialized "Trusts and Fiduciary Funds" department of BNA, which is currently managing several trusts worth approximately US\$3 billion. BNA's financial statements as at December 31, 1997, list assets of US\$17 billion including a loan portfolio of US\$11.8 billion, and capital assets and government securities totalling US\$3.9 billion. These assets have been financed with third-party deposits (US\$10 billion), resources derived from financial intermediation (US\$4 billion), and equity capital (US\$2 billion). Net earnings from financial intermediation in 1997 totalled US\$106 million, and overall net income for the period was US\$87 million. Based on these figures, the BNA is deemed to have the resources required to provide cofinancing for the trust it will be administering.

V. FEASIBILITY OF THE PROGRAM

A. Technical feasibility

5.1 From a technical and engineering standpoint, the program is considered both practically feasible and fully justified. The main considerations supporting this view are:

- a. The program meets an urgent need to improve the quality and coverage of the country's water and sanitation services.
- b. Adequate engineering studies and acceptable cost estimates have been performed for the projects in the representative sample. There is also a database on projects with studies already under way, which can help to develop the program universe.
- c. The proposed implementation schedule (five years) provides suitable periods within which to carry out the planned activities.
- d. The use of trusts (Windows 1 and 2) as intermediates will help to ensure that the technical analysis of projects is carried out in an objective manner and with the participation of private consultants.
- e. ENOHSA has executed programs which were technically similar to the institutional restructuring and improvement projects included here, and therefore has the experience required for proper administration of the planned activities. Specialized consultants will be hired to advise in areas where ENOHSA does not have sufficient experience.
- f. The institutional strengthening and modernization program will enable service providers to improve their performance as measured by the proposed indicators of operating and financial efficiency. This component will be closely monitored by ENOHSA since it constitutes one of the main objectives of the operation.

B. Environmental feasibility

5.2 The rehabilitation and expansion works included in this program are intended to improve hygienic and health conditions for the beneficiary populations by ensuring better continuity of service, improved water quality, and greater access to the system. Special attention will be given to sewage treatment to prevent water pollution downstream. Given the nature of the program, the social and environmental impact of the construction works is expected to be minor, temporary, localized, and correctable using known methods.

- 5.3 The system for monitoring the environmental quality of the projects will make it possible to identify potential adverse effects on the environment in advance, and propose corrective measures that will be included in bidding conditions for use during execution of the works (see paragraph 3.54).

C. Financial feasibility

- 5.4 The financial feasibility of the program will depend upon the capacity of the prospective subborrowers to produce sufficient resources to provide local counterpart funds, and after completion of the execution period, to generate the resources needed to operate and maintain the works in proper condition, as well as meeting all of their financial obligations.
- 5.5 The representative sample of projects submitted by ENOHSA shows that the companies are generally not in a position to cover 50% of the project costs as required under the financing matrix for Argentina.
- 5.6 The proposed program includes alternatives for encouraging commercial banks to provide resources enabling companies to fulfill their local counterpart commitments.
- 5.7 According to surveys, private banks are interested, and look positively on partial project financing in conjunction with the trust for IDB loan resources. Given the terms of their financing, the trust resources are viewed by commercial banks as "quasi-equity". The presence of the Argentine Government through ENOHSA, which provides a blanket assurance with regard to the sovereign risk entailed in public sector projects, will encourage the private banks to take part in financing these projects.
- 5.8 It should be noted that a private bank (Banco de Galicia) has already indicated its interest in participating in the process of selecting a bank to administer one of the two trusts, as well as to serve as cofinancing institution in the program.
- 5.9 A sample of nine companies with projects totalling US\$60.6 million have qualified for cofinancing on the basis of projections indicating adequate financial capacity. In the case of the company in San Juan, the status of its past-due accounts receivable and the institutional changes required to attract private sector participation need to be evaluated before submission of its application.
- 5.10 A question examined in the case of the smaller companies was whether customers would be able to pay the higher rates required to cover the operating and maintenance costs of the works, as well as the cost of servicing the debt. The total monthly payment they would have to make was compared with 5% of their income, with positive results.

- 5.11 Entities with projects costing less than US\$7.5 million will also have the option of using the BNA cofinancing mechanism.
- 5.12 BNA, which has an extensive presence in the Argentine provinces, has expressed interest in participating in this arrangement with an initial contribution of about US\$90 million. A review of BNA's financial statements indicates it would have no difficulty providing this amount during the project execution period.
- 5.13 Companies that qualify for institutional strengthening projects only, due to their financial problems, will be eligible to receive funding directly from ENOHSA in amounts equivalent to up to 80% of the cost of the project. Companies unable to produce the resources necessary to cover the remaining 20% at the time scheduled for project implementation will have to obtain a bridging loan, since this 20% figure corresponds to the VAT, which the company will recover through its sales.

D. Socioeconomic feasibility

1. Introduction

- 5.14 The socioeconomic analysis entailed two types of activities. The first was a review of the economic evaluation methods used by ENOHSA to assess the projects under stage VI of the Rural Water Supply Program (857/CO-AR) and PRONAPAC (621/CO-AR) to learn from the experience and make improvements. The second was an economic viability assessment of a representative sample of projects to be financed under the program. In addition to its project database, ENOHSA has the basic plans for 19 additional projects with a total value of US\$40.2 million, for which cost-benefit analyses have yet to be performed. The methodology to be used in evaluating project proposals for financing under the program will form part of the operating regulations.

2. Analysis of previous operations

a. PRONAPAC

- 5.15 This program provided US\$82.2 million to finance projects for the rehabilitation, consolidation, or expansion of water supply and sanitation systems. The program's operating regulations called for both least-cost and cost-benefit analyses to be carried out. The least-cost analysis was done for all projects, while a cost-benefit analysis was carried out for only one project valued at US\$2.4 million (sewerage system in the city of Coronda). The failure to conduct a socioeconomic analysis may result in the financing of projects which are over- or under-designed. This problem will be corrected in the present program, and the Country Office will be asked to consult with the Bank's Headquarters in cases where it proposes to waive the cost-benefit analysis for a project.

b. Stage VI for small municipalities

- 5.16 The economic evaluations carried out for all projects approved under this program were reviewed. The lessons learned from this analysis are three: (i) the economic evaluations made of integrated projects (water supply and sewerage) are satisfactory and the method should be repeated under the present program; (ii) the benefits were overestimated in the evaluations carried out for sewerage system projects, so the methodology for the present program has been corrected accordingly; and (iii) ENOHSA is currently using this evaluation more as a filter than as a basis for conceptual design and planning, which will be corrected.

3. Representative sample of projects to be financed by the present program

- 5.17 Three types of analysis will be carried out to verify the socioeconomic feasibility of each project in the representative sample: (i) analysis of alternatives to ensure that the proposed work is the least-cost solution for the desired service; (ii) cost-benefit analysis; and (iii) analysis of incentives for efficient use of resources. The figures for investments, operations, and maintenance used in the analysis were the incremental costs and benefits of same, valued at foreign-exchange-based efficiency prices.
- 5.18 The program will finance two main types of works, or combinations of the two: (i) water supply systems (including rehabilitation and modernization works), expansion of production, expansion of the system to accommodate new users, or any combination of these; and (ii) sewage collection, treatment and disposal systems, including expansion of sewerage and sewage treatment capacity and/or expansion of the system to accommodate new users.
- 5.19 Both the benefits and the costs included in the analysis result from a comparison of the situation "with-or-without" the project, which produced the incremental values derived from execution of the proposed works. For purposes of the analysis, the costs of investment included a 10% increase to cover contingencies.

a. Analysis of alternatives

- 5.20 In the projects of the representative sample, it was confirmed that the solutions selected - including investment, operations, and maintenance costs discounted at the rate of 12% - correspond to minimum economic cost. The costs included the opportunity cost of land to be used for treatment plants.

b. Cost-benefit analysis

(i) Water supply projects

- 5.21 In the "without project" situation, the beneficiaries are families that must carry water to their homes, have inefficient individual systems (hand or electric pumps), or are served by water trucks. Other less frequent problems include: (i) physical losses exceeding 30% of production due to deteriorating systems; (ii) systems requiring adjustment (e.g. an increase in capacity at bottlenecks) in order to operate more efficiently; and (iii) rationing systems.
- 5.22 The SIMOP model developed by the Bank was employed for the cost-benefit analysis of the water supply projects. Depending on the individual case, the economic benefits considered were: (i) savings in resources through replacement of current supply systems; (ii) increase in water consumption valued in terms of the beneficiaries' willingness to pay (WTP); and/or (iii) savings in resources through recovery of physical losses and postponement of projects for expanding production capacity.
- 5.23 The beneficiary population was projected on the basis of historic growth patterns. Demand was estimated as a function of population served and service provided. For purposes of analysis, per capita supply was obtained using an econometric model developed in Stage V of the water and sanitation program for municipalities with fewer than 15,000 inhabitants (1993), and in some cases was based on metered consumption.
- 5.24 Elasticity of demand was set at -0.31 (taken from the econometric model). For projects in larger cities, a proportional value between that figure and -0.48 (corresponding to a city with one million inhabitants) was interpolated. This last number was obtained from studies on the cities of Morón and Tres Esquinas in the province of Buenos Aires.
- 5.25 Three projects with a total value of US\$6.6 million were analyzed. The most important results were as follows:

City/Town	Population	Number of Beneficiaries	Investment (US\$'000)	EIRR	NPV (US\$'000)
Coronda	14,000	13,010	693	≥ 30.0	≥ 1,000
Garhuapa	2,368	2,224	722	20.8	1,081
Ceres	12,880	9,143	5,200	14.8	535

(ii) Sewerage projects

- 5.26 The sewerage projects included in the program are either new systems or expansion of existing systems. In the majority of cases, projects include sewage treatment plants, with secondary or tertiary treatment for those basins that drain into lakes. In the "without project" scenario, there are problems with the operation of septic tanks owing to the high water table in most flat areas of the country, contamination of ground water (which in many areas such as dry regions in the provinces bordering the Andes is the only available water), and the dumping of sewage in residential areas or public thoroughfares. These problems lower water consumption and living standards generally in terms of health and environment.
- 5.27 The benefits were calculated by measuring cost savings versus enhanced living standards measured in terms of willingness to pay (WTP) for sewage collection service. To determine WTP, an Argentine model developed for projects in municipalities of less than 15,000 was used. This model was estimated on the basis of 13 evaluation models depending on the type of survey response (see Annex 5.1). The beneficiary population used for the calculation of benefits, was projected on the basis of historical growth patterns.
- 5.28 The costs used in this analysis were limited to those for intercepting and collector lines. The cost of the treatment plant was not included since it was evaluated using the least-cost method. Similarly, the benefits of treatment plants in the representative sample were not evaluated, since the amounts involved were very low (under US\$400,000, or less than 20% of the total cost) and the cost of estimating benefits is very high (so that analyzing them would not be cost effective). Nor was an attempt made to quantify the benefits to be derived from treatment of water for consumption. On the other hand, cost-benefit analyses will be conducted for treatment plant projects to be financed under the program if their cost exceeds US\$5 million, or the treatment plant represents more than 30% of the cost of the sewerage system (US\$1.5 million). The plans for such plants will in all cases take into account the purification capacity of the receiving body and the subsequent use of the water.
- 5.29 The benefits of sewerage projects valued at US\$5 million or less will be estimated using the Argentine model. The exogenous variables for the model will be determined by means of the social welfare survey. A contingent evaluation must be conducted for projects valued at more than US\$5 million.
- 5.30 A total of 17 projects (worth US\$44.7 million in all) were evaluated, of which 9 (for a total of US\$23.2 million) are feasible. The most important socioeconomic features of the viable projects with civil works in place and ready for financing from the various windows are as follows:

City/Town	Population	Number of Benef's	Investment (US\$'000)	WTP US\$/Month	EIRR	NPV (US\$'000)
Pérez	18,930	13,320	3,592	28.9	26.0	2,255
Arroyo Dulce	1,750	1,416	1,294	28.3	13.1	40
Ascención	3,932	3,900	2,860	22.6	12.5	43
Conesa	2,259	2,057	1,502	25.0	18.6	273
Charata	17,820	15,951	3,568	16.2	21.9	1,530
Olivera	2,154	1,934	1,616	26.7	12.1	6
Huanguelen	5,397	2,680	1,616	21.4	12.6	46
L.N. Alem	18,188	10,086	4,062	10.9	21.5	1,528

4. Sensitivity analysis

- 5.31 An investment cost sensitivity analysis was performed on the sample of water and sanitation projects found to be economically feasible. To determine the probability of nonfeasibility, figures showing the discrepancies between real cost and budgeted cost were obtained for each of the projects in stage VI of the Rural Water Supply Program.
- 5.32 Based on the sensitivity analysis it can be concluded that the probability of nonfeasibility for the approved projects is less than 25%. It must be noted, however, that the analysis is conservative in that the direct costs were increased by 10% to allow for contingencies for purposes of the socioeconomic evaluation. For these reasons, financing for these projects is recommended.

5. Incentives for the rational use of the resource

- 5.33 Companies requesting financing under the present program must have household metering in place for more than 90% of their systems. In addition, efforts will be made to ensure a minimum rate equivalent to a monthly consumption of 10 m³ per family or less. In addition, their rate structure must ensure coverage of all costs, and billing must be based on metered consumption.
- 5.34 A MIF operation is being prepared to strengthen or create provincial regulatory agencies to ensure that rate schedules cover all service provider costs, that returns on capital investment (cooperatives excepted) are adequate to encourage private sector participation, that cost efficiency is promoted and passed on to consumers, and that monopoly pricing for water and sanitation services is prevented.

E. Analysis of beneficiaries

- 5.35 The analysis of project beneficiaries included an evaluation of ability to pay among potential beneficiaries and an assessment of the program's impact on low-income groups.

1. Ability to pay

- 5.36 In analyzing ability to pay, it was determined first whether monthly water and sanitation bills came to less than 5% of family income. It was found that for most of the projects in towns of less than 15,000 inhabitants, rates were beyond the payment capacity of at least 40% of the population. This is because of the rate structure developed by ENOHSA to conduct the analysis. The analysis will seek to ensure that basic consumption is sufficient to cover debt servicing. The program's operating regulations will call for rate structure revisions so as to charge on the basis of the volume of water consumed, with basic consumption defined as less than 10 m³ per connection per month.

2. Impact on low-income groups

- 5.37 ENOHSA requested a loan covering 60% of the program. To determine whether this would be possible, the program was reviewed against the criteria for poverty-targeted projects. It was found, however, that only 33% of the beneficiaries in the representative sample qualified as low-income, based on the family income figures reported in the surveys for the social welfare program.

F. Risks

- 5.38 The main risks of the operation stem from the administrative and financial problems observed in most of the companies concerned. The viability of the proposed cofinancing mechanisms will depend on their credit-worthiness as revealed by the commercial bank analyses. Financing for institutional reform and operational improvements within the weakest companies is expected to mitigate these risks by contributing to their self-sustainability in the near term. In addition, since the cofinancing mechanism will be new to the sector, close monitoring by the executing agency and the Bank will be required to contend with unforeseen developments.

**PROGRAM IN SUPPORT OF REFORM OF THE WATER SUPPLY AND SANITATION SECTOR
LOGICAL FRAMEWORK FOR THE PROGRAM**

OBJECTIVES	VERIFIABLE INDICATORS	MEANS FOR VERIFICATION	ASSUMPTIONS
Quality of life and well-being of cities participating in the program (achieved).	Improvement in well-being indicators for health, quality of housing and education.	Social, regional and national statistics.	
to and improve the efficiency of sewerage services in cities participating in the program (achieved).	<ul style="list-style-type: none">- 1 million inhabitants obtain or gain improved access to water and/or sewerage services by 2003.- Average water consumption rises from 120 L to 180 L/inhabitant/day in cities by 2003 in cities benefitting from the local sewerage projects.- Average water consumption rises from 50 L to 180 L/inhabitant/day in regions where water and sanitation projects are carried out.- Participating companies (80-100 of them) are financially self-supporting by 2003.	<ul style="list-style-type: none">- Annual reports from operating companies to be compiled by ENOHSA.- Progress report 12 months after the start of execution.	<ul style="list-style-type: none">- The country achieves positive economic growth and social welfare rates.- The provincial regulatory agencies operate effectively. (A parallel study is prepared with MIF resources to achieve this objective.)
for sewerage systems built or in operation).	<ul style="list-style-type: none">- Between 80 and 100 systems built or expanded by 2003.- Approximately 280,000 connections to the water and/or sewerage systems completed by 2003 at an average cost of US\$1,300 for water and US\$2,200 for sewerage.	<ul style="list-style-type: none">- Certificates of acceptance of works.- Consultant reports.- Resolutions approving loans (ENOHSA and/or participating commercial banks).	<ul style="list-style-type: none">- Demographic growth rates are higher than at present.- The systems are properly operated and maintained.- Financing is available for low-income household connections.

OBJECTIVES	VERIFIABLE INDICATORS	MEANS FOR VERIFICATION	ASSUMPTIONS
sewerage service providers d by ENOHSA.	<ul style="list-style-type: none"> - 40 operating companies (10 in the first 18 months) achieve efficiency levels represented by the following indicators: <ul style="list-style-type: none"> -Household metering $\geq 90\%$ -Collections efficiency $\geq 85\%$ -Coverage of debt service $\geq 1.3:1$ -Financing of works programs $\geq 30\%$ - Contributions for Loan B of the trust windows will reach US\$75 million between 1999 and 2003 (US\$5 million in the first 18 months). 	<ul style="list-style-type: none"> - Evaluation reports from ENOHSA. - Companies' client registers. - Technical reports from operating companies. - Financial reports from operating companies. - Audited reports from operating companies. - Information systems of the trusts. 	
<p>cial system contributes o finance the sector .</p> <p>the trusts.</p> <p>strengthening ature of contracts pletion of strengthening.</p> <p>f the works.</p> <p>ovement of financing. ature of loan contracts. or tenders. ature of contracts with panies. f the supervisor. ution of the works. ion of operations.</p>	<ul style="list-style-type: none"> - Two trust administration contracts signed: (1) contract with the Banco de la Nación; (2) contract with a private bank. - Loan contracts between ENOHSA and the companies (8 per year). - Periodic reports from the companies. - Implementation schedule for the completed projects. 	<ul style="list-style-type: none"> - Registered administration contracts. - ENOHSA's information system. - Contracts for construction works. - Reports and progress statements on the works. - Contracts with consultants. - Supply contracts - Supervision reports. - Progress reports on the program from ENOHSA and participating commercial banks. 	<ul style="list-style-type: none"> - Political resolve at the provincial municipal level. - Interest on the part of the comp - Rates are maintained at reason relative to the population's abili - Costs do not rise above project

**PROGRAM IN SUPPORT OF REFORM OF THE WATER SUPPLY AND SANITATION SECTOR
(AR-0175)**

PROPOSED TENDERS AND PROCUREMENT							
MAIN ACQUISITIONS (1)	LOTS	DIRECT COST (US\$ million)	FINANCING		METHOD (2)	PRE-QUALIFI- CATION (3)	ESTIMATED DATE OF PUBLICATION (HALF/YEAR)
			IDB	COUNTERPART			
A. Projects in the sample							
1. Corrientes Water and sewerage system	4	24.15	40	60	ICB/LCB	Sí	II/99
2. San Juan Water and sewerage system	3	19.30	40	60	ICB/LCB	Sí	I/99
3. Coronda Water and sewerage system	1	0.65	40	60	ICB/LCB	Sí	I/99
4. Rawson Water and sewerage system	3	5.80	40	60	ICB/LCB	Sí	I/99
5. Charata Water and sewerage system	2	3.57	40	60	ICB/LCB	Sí	I/99
6. Conesa Water and sewerage system	2	1.50	40	60	ICB/LCB	Sí	I/99
7. Arroyo Dulce Water and sewerage system	2	1.29	40	60	ICB/LCB	Sí	I/99
8. Olivera Water and sewerage system	2	1.62	40	60	ICB/LCB	Sí	I/99
9. Huanguelen Water and sewerage system	2	2.30	40	60	ICB/LCB	Sí	I/99
10. Trelew Improvement of operations	3	0.96	80	20	ICB/LCB	Sí	I/99
11. Frias Improvement of operations		1.14	80	20	ICB/LCB	Sí	I/99
12. R. Segundo Improvement of operations	3	0.89	80	20	ICB/LCB	Sí	I/99
13. Ascensión Improvement of operations	3	0.15	80	20	ICB/LCB	Sí	I/99
14. Pérez Improvement of operations	2	0.79	80	20	ICB/LCB	Sí	I/99
15. L.N. Alem Improvement of operations	2	0.12	80	20	ICB/LCB	Sí	I/99
B. Other projects (to be defined)	65 78	36.0 299.0	80 40	20 60	ICB/LCB	Sí	II/99 to II/02

ICB: International competitive bidding or its equivalent in the case of private companies.

LCB: Local competitive bidding or its equivalent in the case of private companies.

- (1) Most of the projects include: (i) contract for construction works; (ii) purchase of equipment, materials and other goods; and (iii) hiring of consultants.
- (2) ICB will be compulsory for lots whose value exceed US\$5 million for works, and US\$350,000 for goods.
- (3) The two envelope system will be used, with deferred opening.

PROPOSED RESOLUTION

ARGENTINA. LOAN /OC-AR TO THE REPUBLIC OF ARGENTINA
Program in Support of Reform of the Water Supply and Sewerage Sector

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 Republic of Argentina, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a reform program for the water supply and sewerage sector in Argentina. Such financing will be for the amount of up to two hundred and fifty million dollars of the United States of America (US\$250,000,000), which are part of the Single Currency Facility of the Ordinary Capital resources of the Bank, and will be subject to the "Special Contractual Conditions" and the "Terms and Financial Conditions" of the Executive Summary of the Loan Proposal.